WORKING PAPER

EXCISE TAXES IN THE STATES

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I. June 2011 Introduction

Taxes on the sale of goods and services are an important source of revenue for state governments within the United States. In 2010, states collected $344 billion or nearly 49 percent of their total tax revenue from sales taxes, and in the past this ratio was even higher. Fifty years ago, states received around 58 percent of their tax revenue from sales taxes. The Census Bureau places sales taxes in two major categories: general sales taxes and selective sales taxes. General sales taxes apply as an equal percentage of all goods and services sold within the state or as a schedule or rates based on categories of products—for example, a lower rate for groceries. These taxes accounted for $224 billion in revenue in 2010. Selective sales taxes—also known as “excise” taxes—are special taxes or rates that apply to the sale of particular goods or services, and these accounted for the additional $120 billion in sales-tax revenue.

In this paper, we provide a survey of this latter component—state selective sales taxes—providing information on the taxes imposed by the different state governments of the United States.

II. Theory

General Considerations

Excise taxes can take the form of a per-unit tax of a fixed dollar amount or tax as a percentage of the price of a specific taxed product. The effect of this tax on prices and output is particularly convenient to illustrate using supply and demand diagrams, and has become a standard example in introductory economics textbooks. In general, excise taxes decrease output and increase price compared to the no-tax situation, with the degree of output decrease and price increase depending on the elasticity of the demand and supply curves.

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11 All states except Alaska, Delaware, Montana, New Hampshire, and Oregon collect sales taxes. Most states permit local city and county additions to the base sale tax. With 8.25 percent, California has the highest sales tax.
The diagram above illustrates the basic case of a fixed-amount tax, $T$, on each unit sold. The excise tax effectively shifts the supply curve by the amount of the tax.\(^2\) For any given quantity supplied, producers will only be willing to supply that quantity at a price to consumers that is higher by $T$; of the price paid by the consumer, the government receives the amount of the tax and the producer receives the rest.

As depicted in the diagram, the statement that excise taxes will be “passed on to consumers” is somewhat misleading. The final price consumers pay does increase, but it increases as a result of the reduction in quantity supplied. Since only part of the price consumers pay goes to producers, those producers who cannot cover their costs with the remaining portion are driven out of the market. The reduction in quantity raises the price for consumers, and lowers the average cost for producers, until the difference is sufficient to pay the tax.

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\(^2\) The analysis here demonstrates the effects of an excise tax only on the taxed good. Such analysis will be more or less complete depending on the importance of the taxed good in consumers’ total budgets. A tax on one good may change the demand for other goods.
The reduction in output is the source of the “deadweight loss” associated with excise taxation.³ In the diagram, the triangular region bounded by the original supply and demand curves and the line Q₁ demonstrates the efficiency loss from taxation. In the region from Q₁ to Q₀, the cost of production (indicated by the supply curve) is below the price that consumers would be willing to pay, but the added tax drives the total price above this willingness to pay.

The size of the deadweight loss depends on the reduction in output required to produce a change in price. The term “elasticity” describes how much producers or consumers change their production or consumption of a product, respectively, in percentage terms in response to a percentage change in price. The more inelastic (closer to vertical) the curves, the smaller is the reduction in quantity required to produce a change in price equal to the tax, and thus the smaller is the efficiency loss. As a matter of theory, the perfectly efficient excise tax would be one imposed on a good for which the quantity supplied or demanded is completely unresponsive to price changes; in that special case, the revenue raised from the excise tax would be a pure transfer to the taxing authority with no loss in efficiency.⁴

**Externalities and Excise Taxation**

As mentioned above, the overall welfare effect of an excise tax depends on the reduction in quantity produced or consumed of the taxed item. In the foregoing analysis, this reduction in quantity was considered an undesirable side effect. On the other hand, when one considers the major excise taxes imposed in the United States, those on tobacco, alcohol, and gasoline, a case has been made that reducing the consumption of the products subject to an excise tax is actually one of the goals of government policy, rather than a harmful side effect.

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³ “Deadweight loss” refers to the lost opportunity to make a mutually beneficial exchange. In this case, consumers value the taxed good at more than the cost of production, yet taxes drive the cost above consumers’ willingness to pay.

⁴ Efficiency is determined by how resources are used, regardless of who uses them. Since the perfectly inelastic demand or supply curve implies that resources will be used in the same way regardless of price, taxes cannot affect efficiency.
Quantity reduction as policy can generally be defended on two grounds: the harmful effects of consumption on others and, more controversially, the harmful effect to the users themselves. The case for excise taxes on gasoline generally depends on the first of these two reasons, while taxes on alcohol and tobacco rely on both arguments.

Where one person’s use or the production of a product imposes costs on other people, the true “total cost to society” will be greater than the cost that either the producer or consumer faces. The burning of fossil fuels releases carbon dioxide and other pollutants into the atmosphere, an effect that drivers have no individual incentive to take into account. Also important when it comes to driving are the costs each driver imposes on others by increasing road congestion. On the other hand, gasoline excise taxes are not at all well-targeted for this purpose, as the excise is the same for those who drive during rush hour as for those who drive on weekends. The theoretical argument for an excise of this sort is that when a difficult to monitor but externality-producing activity is associated with the consumption of some easier to monitor product, an excise tax on that product can act as an indirect tax on the original activity. As the technology for monitoring traffic and charging tolls becomes cheaper and easier to implement, the shortcomings of the excise tax on gasoline become more salient. The issue is similar when taxing gasoline in response to pollution; if measurement were feasible, a tax on carbon and other pollutants would be a better option than a broad gasoline tax for correcting externalities.

While the standard argument for the externalities of driving are straightforward, the tax on the use of tobacco is more complicated. Take the case of second-hand smoke, which arguably imposes costs on people in the immediate vicinity of the smoker. However, because these people are so close to smokers, they are also people with whom the smoker regularly interacts. In these cases, then, the transactions costs of negotiation are typically much lower than in the case of drivers. Even in the absence of taxation, we might expect to see the “externality” internalized by the affected parties. For example, a bar or restaurant owner benefits by providing a pleasant atmosphere for his customers, and suffers the consequences if smoke bothers customers. Family
members often take each others’ welfare into account when making their decisions. These sorts of arrangements limit the extent to which government intervention is desirable.

Because tobacco is an addictive product with long-term health consequences, excise taxes might be advocated for the benefits of the smokers themselves. More specifically, such taxes would be intended to protect smokers’ future selves from the costs imposed upon them by their current selves. On the effectiveness of this policy tool, if not on its appropriateness, Cnossen and Smart point to research indicating that teenagers have higher price-elasticity of demand for cigarettes. So taxation may be a reasonable way to effect a “solution” to the time-consistency problems that are of concern to some. Under the theory that addiction is not “rational” and that the addicted engage in “hyperbolic discounting,” they fail to properly account for the costs of smoking to their future health. A tax on smoking can help people that are addicted bring their own behavior in line with their true preferences. Gruber and Kőszegi argue that this effect is sufficient to overturn the traditional view that smoking taxes are “regressive.” Correcting for this time-consistency problem, they argue, is a valuable service performed by excise taxes, even for those who are taxed.

The idea that smokers might be able to push the costs of their own health care onto taxpayers is a concern to some. However, Viscusi calculates that for U.S. states, the extra amount spent on medical care is outweighed by savings on nursing homes and pensions. He shows that smokers’ earlier mortality saves states money. While this is not a finding likely to be trumpeted by tobacco companies, it certainly weakens the externalities-based case for a tax on tobacco. Indeed, Cnossen and Smart survey the literature and reports that most research, both for the

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United States and Europe, has found small or negative net costs of smoking to government budgets.\(^8\)

Wagner (1997) discusses some problems with the externalities argument as it pertains to alcohol taxes, as well.\(^9\) The most dramatic instance of external costs is the cost imposed by drunk drivers who recklessly get into accidents and harm or kill innocent people. But this is another example of an indirect tax, as discussed above for gasoline taxes to alleviate road congestion. Here, the unwanted behavior is drunk driving, for which alcohol is the associated good. Of course, all drunk-driving cases will involve alcohol consumption, but not all alcohol consumption leads to drunk driving. For those drinkers who do not operate motor vehicles while intoxicated, the standard welfare analysis applies. Reducing their consumption involves a deadweight loss, as they value the drink above its costs of production, and typically their drinking imposes no significant costs on others. The overall efficiency of a general tax on alcohol for preventing drunk driving depends on the response of the two groups—drunk drivers and non-drunk drivers—to the tax. The greater the response of potentially drunk drivers and the smaller the response of non-drunk drivers, the smaller the loss in welfare from an alcohol tax.

Evidence for the popularity of excise taxes is mixed, and survey responses regarding the popularity of taxation seem to depend strongly on question wording. When reminded of the dangers of drunk driving, for example, survey respondents tend to support higher taxes on alcohol to pay for alcohol-abuse prevention programs.\(^10\) In the case of smoking taxes, Green and Gerken (1989) find that public opinion is divided in accordance with self-interest: non-smokers favor higher taxes, smokers are opposed.\(^11\) Gasoline taxes also show mixed survey results. A 2011 poll showed that, with national gas prices at near-record highs, 44 percent of respondents supported a

\(^{8}\) Ibid.
temporary elimination of the federal gasoline excise tax.\textsuperscript{12} On the other hand, a *New York Times* poll from 2006 found that 55 percent of respondents would support a gas-tax increase if it reduced dependence on foreign oil.\textsuperscript{13}

**Revenue Generation**

Although the desirability of “sin taxes” to reduce harmful consumption receives a great deal of discussion and debate, an important purpose of excise taxes is to raise revenue for the government. As mentioned previously, the revenue generated will depend on the elasticity of demand for a product. Stephen Smith (2005) refers to the “Ramsey rule,” which prescribes that higher-inelasticity goods should be taxed at a higher rate than goods with more elastic demand.\textsuperscript{14} The general idea would be to set tax rates such that consumption of all goods decreased by the same proportion, thus causing no excess distortion in consumption patterns. Clearly, the design and implementation of such a system faces insurmountable difficulties.

Separate from the externality arguments considered above, inelasticity of demand provides another rationale for the major excise taxes collected in the United States. Cnossen (2005) argues that for gasoline, alcohol, and tobacco, “There are few substitutes that consumers would find equally satisfactory, so that consumption remains high despite excise-induced price rises.”\textsuperscript{15} In other words, governments can collect a lot of revenue with only a little distortion of consumption, minimizing deadweight loss. A second potential distortion Smith points to is the fact that in addition to tangible commodities—which can be taxed—individuals also consume “leisure”—which cannot be.\textsuperscript{16} Leisure and yacht services are complementary goods, that is goods that are enjoyed together. Smith suggests that “luxury taxes,” such as a tax on yachts, can be

\textsuperscript{16} Ibid.
justified as an indirect tax on leisure to reduce the distortion caused by the fact that leisure is difficult to measure directly.

From the perspective of individual states, compliance with excise tax laws can be a concern. Differential tax rates among the states create opportunities for profit via smuggling. In Virginia, the tax on a pack of 20 cigarettes is 30 cents, while in neighboring Maryland it is $2, and in DC the rate is $2.50. Commercial, large-scale smuggling is a concern where taxes are high enough to make it profitable. In New York City, smokers pay a city tax of $1.50 in addition to the state tax of $4.35 on a pack of cigarettes, bringing the cost of cigarettes to $5.85 in excise taxes alone.

Overall, excise taxes have brought in more real (i.e., inflation-adjusted) revenue over the last 50 years, but increased revenue from other sources have rendered excise taxes a smaller portion of state tax revenue, going from an average of roughly 35 percent of state revenue in the 1950s to around 15 percent in the late 2000s.

Because most excise taxes are levied on goods consumed by a large proportion of the population, these taxes tend to be more regressive than alternative ways of raising revenue. The Institute on Taxation and Economic Policies argues that a graduated-rate income tax is a fairer way for states to get revenue than to raise revenue through excise taxes. Since poorer households spend a larger percentage of their income on consumption than high-income households, excise taxes take a greater proportion of poor households’ income.

Figure 1 shows total state excise tax revenues as a share of total state tax revenue. The figure shows a steep decline from about 1960 to the early 1980s, then the decline levels off, finds its low in 2000, and since then excise taxes have been rising again, with a noticeable increase in 2010. The decline in excise tax share is mainly the result of increases in other taxes, not a drop in absolute excise revenue.

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Figure 2 shows the relative importance of the excise taxes generating the most revenue in the states. The figure shows alcohol, amusement, tobacco, insurance, public utility, and motor-fuels state tax revenue as a percent of total excise taxes collected (Note: graphs represent share of excise collections, not total tax collections). The importance of motor-fuels revenue has declined over time, while the shares attributable to public utilities and insurance have increased. The share of tax revenue from alcohol taxes has also declined over time and since about 2000, amusement-tax and tobacco-tax shares have increased.

The current survey focuses on excise taxes levied by state governments, not including local excise taxes, which vary within states and may be a significant part of total excise taxes in the United States. In particular, local governments collect a significant share of excise taxes on public utilities and hotel accommodations.

III. Data

Motor-fuels Tax

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<td>Revenue as Percent of Total State Taxes:</td>
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State gasoline taxes are not a percentage tax per gallon but a fixed amount. Over the past decade, motor fuels or gasoline taxes have been diverging across the states. In 30 states, the gasoline tax increased by 25 percent or less since 2001. Given the change in the price of a barrel of crude oil since that year, the result is a decline in the average tax, measured as a percentage of the price of a gallon of fuel. In 2001, the average price of oil was $23 a barrel, but was over $70 per barrel in 2010. On the other hand, there are several states whose taxes have more than kept up
with inflation in the past few years. New York, California, Connecticut, and Hawaii are all states with excise rates currently above 40 cents per gallon, compared to the median state rate of 23.5 cents per gallon. The lowest rate in the country is in Alaska, where the tax is only 8 cents per gallon. To illustrate with a rough calculation, at a price of $3.80 per gallon, state excise taxes range from 2.5 percent (Alaska) to 12.3 percent (California) of the final price paid by consumers of gasoline.

In many states, the total tax on gasoline consists of two parts: the traditional fixed-sum “excise tax” and various auxiliary fees and taxes. These latter can include sales taxes, gross receipts taxes, oil-inspection fees, underground storage tank fees, and others. The American Petroleum Institute calculates that traditional state excise taxes amount to an average rate of 20.6 cents per gallon sold, while these other taxes and fees average 9 cents per gallon for the country.\(^{18}\) Including the states that apply sales tax, either wholly or partially, to gasoline sales, several states have set up means to automatically increase taxes as gasoline prices increase. Georgia’s tax includes a uniform 4 percent sales tax applied to the average state price and updated every six months. Florida indexes a part of its excise tax using the Consumer Price Index (CPI).

Some states offer special tax credits to retail sales of ethanol-blended gasoline. In Iowa, the credit was 20 cents per gallon in 2009 and 2010, which was lowered to 10 cents per gallon for 2011, and currently is set to decline by 1 cent every year until reaching zero in 2021. In Hawaii, ethanol blends are exempt from the state’s “General Excise Tax.” Kansas allows a lump-sum tax credit for the purchase of an alternative-fuel-using vehicle.

Although the federal tax on diesel is higher than on gasoline—at 24.4 cents per gallon compared to 18.4 for gasoline—among the states, diesel taxes are slightly lower, averaging 28.7 cents per gallon rather than 29.7 cents per gallon for gasoline. There are very few where is there much divergence between diesel and gasoline taxes. The state with the highest diesel tax is California, at 51.6 cents per gallon.

Motor-fuels Tax Revenue

Motor-fuels excise taxes are a significant source of revenue for the states and a large proportion of the total excise taxes collected. Among the states, the median ratio of motor-fuels tax revenue to total taxation was 6.5 percent in 2010. Alaska and New York stand out for their exceptionally low ratios: motor-fuels taxes provide only 0.5 percent and 0.8 percent, respectively, of total tax revenue in these states. New York’s low ratio is mainly a result of the large amount of tax revenue it receives from other sources: although New York collected the second-highest amount in total taxes—after California—the state was 26th in motor-fuels tax revenue, slightly above Connecticut and behind New Jersey. Recalling the case for motor-fuels taxes as an indirect tax on road use, states such as New Jersey may use road tolls to tax road use instead of taxes on gasoline. Road tolls are not counted as excise taxes by the Census Bureau. For all the state governments in the United States combined, motor-fuels taxes generated 5.0 percent of total taxes in 2010, down from 5.5 percent in 2001.

Cigarette Taxes

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<th>Tobacco Taxes — Basic Facts (2010)</th>
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<td>Median Cigarette Tax (per pack):</td>
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<td>Total State Tobacco Revenue:</td>
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A perhaps surprising feature of the nation’s high state cigarette taxes is how recently they acquired their current seemingly punitive levels. New York State, which in 2011 has the nation’s highest cigarette tax rate at $4.35 per pack, was in 2000 closer to the middle of the national ranking with a tax of only $0.56 per pack. In 2001, New York raised this tax to $1.11, which was
at the time already high enough to make it the highest tax rate in the country. In 2001, only three states—Alaska, Hawaii, and New York—had a per-pack tax of $1 or more. In 2011, thirty states tax one pack of cigarettes at rates above one dollar, and sixteen states tax one pack above $2. Thirty-three states had tax rates at or below 50 cents per pack in 2001. Today, the number is just seven. Overall, the mean tax has gone from $0.42 in 2001 to $1.46 in 2011, whereas increases that matched the rate of inflation would have brought the mean to only 52 cents by this year. Missouri is one of only three states—with California and North Dakota—to leave their tax rates unchanged throughout the past decade. Missouri’s rate became the lowest cigarette tax rate in the nation, after South Carolina raised its own tax—over its governor’s veto—in 2010.\footnote{Valerie Bauerlein and Betsy McKay, “Veto Overturned on South Carolina Cigarette Tax,” \textit{Wall Street Journal}, May 13, 2010, http://online.wsj.com/article/SB10001424052748704635204575242440445247562.html.}

Naturally, the high tax rates, large differences among the states, and relatively easy transportability of cigarettes make them an attractive target for arbitrage through smuggling, and several states have made attempts to collect taxes from illegal non-payers in the past few years. As cigarette retailers are easier to monitor than their customers, tax enforcement generally focuses on those who sell cigarettes. For example, New York State is involved in a protracted legal battle to require the Seneca, Cayuga, and other Indian Tribes to collect taxes on cigarette sales to non-Tribal customers, in accordance with State law which the Tribes say violates prior agreements between the Tribes and the federal government.\footnote{Dan Herbeck, “Ruling Protects Indian Tribes State-wide from Cigarette Tax,” \textit{Buffalonews.com}, September 17, 2010, http://www.buffalonews.com/city/police-courts/courts/article193423.ece.} The \textit{Wall Street Journal} reported in 2009 that many states—including Florida, Maryland, Michigan, New York, Rhode Island, and Virginia—had announced or enacted plans to increase law enforcement in this area.\footnote{Gary Fields, “States Go To War on Cigarette Smuggling,” \textit{Wall Street Journal}, July 20, 2009, http://online.wsj.com/article/SB124804682785163691.html.}

\textbf{Non-cigarette Tobacco Tax}

In contrast to cigarette taxes, for which every state imposes a fixed excise tax on every pack, states vary in their methods of taxing tobacco products such as cigars, snuff, and chewing
tobacco. The most common form of taxation for these products is a percentage tax on either the “manufacturer’s price,” that is, the price charged to wholesalers by the manufacturer, or on the “wholesaler price,” the price charged to retailers by wholesalers. These percentage taxes are generally quite high in comparison to a typical sales tax. A typical case is Maine, which for cigar sales has a 20 percent tax on the wholesale price. Vermont imposes a cigar tax of a fixed amount which is determined by placing the manufacturer’s price within a range: cigars costing more than $1.08 but less than $10 have a $2 tax, cigars costing more than $10 have a $4 tax.

A few states imposed a fixed per-ounce tax on snuff, chewing tobacco, and smoking tobacco. Montana’s snuff tax is 85 cents per ounce, and New York’s is 200 cents per ounce. The highest fixed-amount tax is Washington state’s tax of 252.6 cents per ounce for snuff, while Wisconsin has the highest percentage tax, taxing snuff at 100 percent of the manufacturer’s price—at typical prices, this tax will be less than Washington’s fixed rate.

Uniform per-unit taxes on tobacco products—taxes by the ounce of tobacco, cigar, or packs of cigarettes—tend to shift consumption toward more expensive brands and products, a phenomenon which has been dubbed the “Alchian-Allen effect.” Since the tax is the same for both cheap and luxury brands, the per-unit tax makes cheaper brands more expensive relative to the luxury brands. Whereas before consumers could perhaps buy three ounces of cheap tobacco for the price of one ounce of luxury tobacco, after the tax the ratio becomes two cheap ounces for the price of one expensive ounce. Producers of high-quality products would thus prefer a per-unit tax to a tax based on the value of goods sold. If the cost of the externality created by the use of tobacco products is the same regardless of quality, then a per-unit tax is the correct policy from the standpoint of externality correction.

For public health purposes, lower taxes on smokeless tobacco products relative to cigarettes may be desirable. Foulds, Ramstrom, Burke, and Fagerström suggest that smokeless tobacco has led to lower rates of smoking in Sweden (“Effects of smokeless tobacco (snus) on smoking and public health in Sweden”, Tobacco Control, Vol. 12)

**Tobacco-tax Revenue**

With the increase in state tobacco tax rates over the past decade, tobacco excise revenue has come to make up a larger portion of the states’ budgets. For all of the state governments of the United States taken together, revenue from tobacco excise taxes made up about 2.39 percent of total revenue and 14.1 percent of revenue from selective sales taxes. This compares to 1.54 percent of total revenue and 11 percent of excise revenue in 2001. Tax revenue per capita has increased from $30 in 2001 to $54 in 2010, although an increase that kept pace with CPI inflation over that period would have been about $37 in 2010.

The states with the highest tobacco taxes do not necessarily have the highest ratio of tobacco taxes relative to total tax revenue or even the highest tax collection per capita. In 2010, New Hampshire collected the most tobacco tax per capita—$179—and collected a large proportion of its total taxes from tobacco, at 11.2 percent of total taxation revenue and 29.7 percent of excise revenue. At $1.78 per pack, New Hampshire’s tax rate is in the top half for the states but is far from the highest rate. Rhode Island—whose $3.46 tax per pack had been the highest in 2010 until New York raised its own tax to $4.35 on July 1—collected 5.35 percent of its tax revenue that year through tobacco taxes. Counties and cities may impose additional taxes, which currently range from 1 cent to $2.

Some cities, such as New York City and Washington, DC, have enacted smoking bans in restaurants and bars. In general, economists have argued that taxation is a superior alternative to outright bans, as with taxation those who value consumption the most are still able to satisfy their desires, while those who are on the fence are pushed to reduce their consumption when the total cost to society is higher than the cost they face as individuals. From a government-revenue perspective, smoking bans acts as a “tax” on smokers, yet one that does not raise any revenue.
Recently, a few states have considered lowering their cigarette taxes. New Hampshire’s House passed a bill in March 2011 lowering the rate by 10 cents per pack, to $1.68. Rhode Island and New Jersey are also considering tax cuts.\(^{24}\)

**Alcohol Tax**

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<th>Alcohol Taxes — Basic Facts (2010)</th>
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<td>Range (tax per gallon), beer/wine/liquor:</td>
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<td>Total State Alcohol Revenue:</td>
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* Does not include states where government controls all liquor sales

Excise taxes are often seen as a policy tool for controlling undesirable activities, for example, activities with negative externalities. When it comes to alcohol consumption, however, many U.S. states take a more direct approach to limiting alcohol consumption. The various restrictions states impose on alcohol sales, from limiting the hours and locations in which alcohol can be sold to directly controlling all sales through state-operated outlets, render the amount of the excise tax a poor description of the true market distortion—in addition, the National Minimum Drinking Age Act of 1984 required states to pass a law making the minimum age to consume alcohol 21 or risk losing federal highway funds. In effect, the imposition of a higher excise tax may amount to market liberalization in many states if accompanied with an elimination of other access restrictions.

Among the alcoholic beverages, beer is subject to the least strict controls on its sale, though some restrictions are common. In Colorado, Kansas, Minnesota, Oklahoma, and Utah, ...

grocery stores may only sell a form of low-alcohol beer containing 3.2 percent alcohol by weight—equivalent to 4.0 percent alcohol by volume. Pennsylvania, for its part, does not allow beer to be sold in grocery stores at all. Pennsylvania consumers can purchase six-packs of beer from restaurants, a situation which has recently made it possible for the supermarket chain Wegmans to offer beer in its attached cafés.25

These restrictions aside, the explicit excise-tax rate on a gallon of beer ranges from 1.9 cents in Wyoming to $1.07 in Alaska, with the median tax rate being 19 cents per gallon. In general, these rates have not seen much change in the past decade; in 2001, the median rate was 18.5 cents per gallon.

Determining state tax rates on liquor is complicated by the fact that in 19 states, all liquor sales are controlled by the government. In those states, the explicit “excise tax” has little economic meaning. An example may help illustrate the problem in states with Alcoholic Beverage Control laws. In Virginia, according to an analysis by the Washington Post, the sale of liquor is subject to a $1 per-bottle “processing fee,” a 69-percent “mark-up,” and a 20-percent “excise tax” to produce the final price, which is uniform throughout the state. Naturally, since all revenue from liquor sales goes to the state, this division of additional costs into taxes, fees, and mark-ups appears to be arbitrary from the consumer’s point of view.

Of the states that allow private liquor sales, the highest rate is $12.80 per gallon, which applies in Alaska, and the lowest is $1.50 per gallon, the rate in Maryland. The median tax among these states is $3.75 per gallon.

The laws which pertain to wine, a drink somewhat more alcoholic than beer and somewhat less alcoholic than liquor, are generally somewhat more restrictive than the laws for beer and somewhat less restrictive than liquor laws. There are five states in which all wine is sold

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Among states that have an excise tax and do not control all wine sales through government-controlled stores, the lowest tax rate is in Louisiana, at 11 cents per gallon, and the highest rate is Alaska, at $2.50 per gallon. The median excise tax on wine is 70 cents per gallon. These taxes are in addition to the federal excise tax on wine, which is $1.07 per gallon for wines with 14 percent alcohol by volume or less. On top of these taxes, almost all states also apply the general sales tax to the price of alcoholic beverages, effectively including a tax on the amount of the other excise taxes. Kansas has a special 8-percent tax called the “Liquor Enforcement tax” which takes the place of the sales tax. In April 2011, Maryland approved an increase in the sales tax applying to alcohol from 6 percent to 9 percent, effective at the beginning of July 2011.26

One interesting case in the national array of alcohol taxes is Pennsylvania’s so-called “Emergency Liquor Sales Tax,” or “Johnstown Flood Tax,” a tax originally passed in 1936 as a temporary measure to help assist victims of a flood in Johnstown, Pennsylvania. The tax, levied on wine and liquor, was originally set at 10 percent, then raised to 15 percent in 1963 and 18 percent in 1968, and is still in place at 18 percent.27 As Pennsylvania is an Alcoholic Beverage Control state for both wine and liquor, the actual tax means little, but those who ship wine to consumers in Pennsylvania are required to collect and pay the “Emergency Tax.”

*Alcohol-tax Revenue*

Total revenue collected by state governments for alcohol excise taxes increased by 34.2 percent from the year 2000 to 2010, or by slightly less than 6 percent in inflation-adjusted dollars. Alaska, which enacted sharp increases in all alcohol taxes within the past decade, is an outlier in this regard: here tax collection tripled since 2000.

In per-capita terms, total tax collection increased from $14.57 per person to $17.85, a 22-percent increase. The state that collects the most in taxes per resident is again Alaska, at $54.93. For individual states, as noted by the Census which provides the data, per capita figures can be misleading, especially in states with a significant tourism industry. In these states, taxes collected per capita will not represent the tax burden on each resident.28

Overall, alcohol taxes make up a small portion of state budgets. In 2010, the highest reported proportion of tax revenue from alcohol was in South Carolina, at 2.2 percent of collections. The median ratio was 0.64 percent, and the smallest was in Wyoming, where alcohol taxes are only 0.078 percent of total tax collections.

**Insurance-premiums Tax**

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A common excise tax imposed by every state government is a tax on insurance premiums received by companies operating within the state. The tax rates vary both among the different states and within each state depending on the specific type of insurance policy being sold.

As a rough guide, insurance-premiums taxes are generally in the neighborhood of 2 percent of total collected premiums, but tax rates differ across insurance policies. In Hawaii, a state with some of the highest insurance premiums in the country, life insurance is taxed at a 2.75 percent rate, while casualty insurance and real-property title insurance are taxed at 4.265 percent. West Virginia is another high-tax state, in which insurance policies are taxed at a base rate of 4 percent, with an additional surcharge of 0.55 percent, which itself was reduced from 1 percent

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after 2005. Illinois has the lowest insurance tax in the country, a uniform rate of 0.5 percent for all types of insurance.  

An interesting feature of the insurance-premiums tax landscape is what is called “retaliatory taxes.” Basically, these taxes are a response to the differential tax rates among the states. A retaliatory tax is a tax imposed by a low-tax state on corporations from a high-tax state doing business in the low-tax state. The tax that the low-tax state imposes on that corporation is the tax of the high tax state. Felton writes that with a retaliatory tax one state effectively says to the others, “If your standards are stricter for our insurance companies operating in your state than are our own standards for your companies operating in our state, we will apply your stricter standards to your companies when they operate in our state, rather than our own.”  

As Florida’s brochure on the matter says, this means that insurance companies based outside of the state must calculate their insurance-premiums tax bill twice: once based on the Florida rules and rates, and again based on their home state’s rules and rates. If the home state’s rate would have implied a higher payment, the company must make that payment to Florida, rather than the one implied by Florida statute. Every state except Hawaii has these retaliatory tax provisions—which may simply reflect the fact that Hawaii has higher insurance taxes than almost any other state.

**Insurance-tax Revenue**

A large proportion—13.2 percent—of state governments’ revenue from excise taxes comes from the taxation of insurance premiums. In 2010, insurance-premium tax revenue for all state governments totaled $15.8 billion, representing an increase of 61 percent over collections in 2000—30 percent in inflation-adjusted dollars. In historical perspective, the proportion of excise-tax collections represented insurance-premium taxes has increased in the past sixty years, from

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about 8 percent in the 1950s to slightly over 13 percent in recent years. In California, insurance-premium taxes made up 29.5 percent of excise tax revenues in 2010, at a rate of 2.35 percent. Wyoming’s 3-percent rate brought in 30.2 percent of total excise taxes for that state. For the state governments of the United States overall, insurance-premium taxes constituted 2.23 percent of total tax revenue in 2010.32

Amusement and Gaming Tax

<table>
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<th>Amusement and Gaming Taxes — Basic Facts33 (2010)</th>
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<td>Tax Applies to:</td>
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<td>Casinos, Racetracks, Live Entertainment</td>
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<tr>
<td>Total State Amusement Revenue:</td>
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<tr>
<td>$6.41 billion</td>
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<tr>
<td>Total State Pari-mutuel Revenue:</td>
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<tr>
<td>$150 million</td>
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<tr>
<td>Combined Revenue as Percent of Total State Taxes:</td>
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<tr>
<td>0.93 percent</td>
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<tr>
<td>Combined Revenue as Percent of Total Excise Taxes:</td>
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<tr>
<td>5.49 percent</td>
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Currently, 13 states allow commercial casinos to operate within their borders, 12 states allow the operation of racetracks, and 29 states contain “Tribal Casinos” owned and operated by Indian tribes on tribal land. For most states, legalized gaming is a recent development. After Nevada (1931) and New Jersey (1976), a major round of legalizations occurred in the 1990s, accompanied by provisions for high rates of taxation.34

Generally, gaming is taxed in two ways: first, every state taxes gross gaming revenue, defined as total bets taken minus payouts. Second, many states charge a per person “admission fee” for each casino visitor. The tax rates on gaming revenue vary among the states, and average about 20 percent. States that tax casinos by visitors generally impose a $2 to $3 tax per visitor.

32 Data: Census Bureau; ratio calculations by authors.
33 Data: Census Bureau; percentage calculations by authors.
Pennsylvania stands out in its high tax rates on casinos. Having opened its first casino in 2007, Pennsylvania has established a variety of levies on gaming revenue. Casinos must pay a state tax rate of 34 percent, 4 percent for “local share assessment,” 5 percent for the “Pennsylvania Gaming Economic Development and Tourism Fund,” and since July 1, 2010, 17 percent to the “Pennsylvania Race Horse Development Fund” (this rate has been reduced from 34 percent previously).  

Nevada, with its famous Las Vegas strip, has more casinos than any other state, with 260 non-Indian casinos. Nevada’s tax rate on gaming revenue is also much lower than other states, at 6.75 percent. In addition to this tax, Nevada also imposes an excise tax on any “live entertainment” tickets sold in the state. For facilities with more than 7,500 seats, the rate is 5 percent of ticket revenues, while for facilities with less than 7,500 seats, the rate is 10 percent.  

Combined racetrack/casino facilities are treated differently from standalone casinos for taxation purposes, and the taxes are generally much higher for these entities. In Rhode Island, the American Gaming Commission reports the “revenue retained by operator” as 27.3 percent of total revenue. Rhode Island has the highest taxes among the states with racetrack casinos, but high rates are quite common. In Louisiana, racing casinos pay 18.5 percent to the state, 18 percent to the association of horsemen, and then 4 percent of net revenue to the local parish (Louisiana is divided into parishes rather than counties). Iowa’s current maximum rate is 24 percent for racetrack casinos and 22 percent for standalone casinos.  

**Gaming-tax Revenue**  
Taxes on the few legal gambling opportunities within the United States allow state governments to collect a significant amount of tax revenue from each casino. Pennsylvania, with its previously mentioned high rates, collects the most tax revenue from casinos, at $929 million in 2009. Indiana—with its $3 admission fee per visitor and 40 percent tax rate on gaming revenue—

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36 [http://leg.state.nv.us/NRS/NRS-368A.html#NRS368ASec200](http://leg.state.nv.us/NRS/NRS-368A.html#NRS368ASec200).
was second in 2009, with $878 million from casinos. Nevada ranked third in 2009 in tax receipts, with $832 million.\(^{37}\)

Revenue from racetracks is reported to the Census Bureau in two distinct categories of selective sales tax: revenue from racing is classified as “pari-mutuel” \(^{38}\) revenue, while revenue from slots and other casino operations are classified as “amusements.” In 2010, amusement revenue dwarfed pari-mutuel revenue among the states, who collected a total of $150 million from pari-mutuels compared with $6.4 billion from amusements.

Many states receive revenue from tribal casinos, though the taxation of these casinos is complicated and disputed. According to Michigan’s gaming control board, Indian casinos cannot be taxed by the states. However, Indian tribes who wish to operate casinos are required to have a compact with the state in which they are located. As part of this agreement, states often receive some form of payment. In Michigan, the state receives 8 percent of gaming revenue from electronic games of chance from tribal casinos.\(^{39}\) The Mohegan Sun and Foxwoods casinos—operated on Indian reservations in Connecticut—are two of the highest revenue-generating casinos in the country. Partially in exchange for not allowing commercial casinos to operate in the state, the tribes operating these casinos pay 25 percent of total slot-gaming revenue to the state. In 2010, Connecticut received $350 million from these casinos.\(^{40}\) Such revenue is reported as amusement-tax revenue to the Census Bureau.

Overall, taxes on total “amusements” accounted for about 3 percent of total tax revenue in states with legal casino gaming. Nevada stands out here; the state collected 14.8 percent of total tax revenue from gaming in 2010.\(^{41}\) The limited availability of gaming and the significant

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\(^{38}\) A form of betting where losers’ bets form the purse used to pay the winners.


\(^{41}\) Authors’ calculations from Census Bureau data.
revenue available to those states which have legalized and taxed it may explain the recent trend of gambling legalization.

*Public-utility Tax*

<table>
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<td>Tax applies to:</td>
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<td>Revenue as Percent of Total State Taxes:</td>
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<td>Revenue as Percent of Total Excise Taxes:</td>
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About 12 percent of selective sales taxes are classified by the Census Bureau as “public-utility taxes.” The Census definition of utilities is quite broad, including services such as electricity, gas, and water, as well as transport services and telephone. Utility taxes are taxes “imposed distinctively on public passenger and freight transportation companies, telephone, telegraph, and light and power companies, and other public utility companies.” States differ so widely on the utilities that are taxed and on the method of taxation that it is difficult to make general statements about the country as a whole. Some states have a uniform rate applying to all utilities, while others apply different rates and fees to different utilities. Some states use per-unit taxes for utility services, while others base their taxes on total revenue received by utility companies. In addition, for states where utility service and rates are subject to extensive state regulation, it is difficult to assess the impact of state policy on consumer costs by looking at excise taxes alone. With those caveats, we provide some examples of utility taxation.

Imposition of uniform rates across several utilities is common. One technique is simply to apply the usual state sales tax to utility services. In Arkansas, the 6-percent sales tax applies to
electricity, gas, water, telephone and telegraph service, and cable television. Florida, with no state sales tax, applies to companies a rate of 2.5 percent to revenue received from the sale of natural gas and electricity to Florida. Indiana’s uniform rate on utility services is 1.4 percent. Since 2007, Virginia has applied its 5-percent sales tax to the sale of communications services.

New York imposes a utility tax on railroads at 3.52 percent of gross income. Utility taxes in New York are in addition to normal business taxes, though companies are permitted to deduct the amount paid in utility taxes for calculating taxable income.

Cell phones are subject to excise taxes both at the federal and state level. Most states apply sales taxes to cell phone bills, but a few have distinct rates for cell phones. Alabama has a 6 percent “cell-service tax,” in contrast to its 4 percent sales tax. Delaware applies the “public-utility gross receipts tax” of 5 percent to cell phone service, though the state has no sales tax. A 911 service fee is another common excise tax, usually a fixed fee in the range of 60 to 75 cents per month, though New York’s fee is $1.20 and West Virginia’s is $3 per month. A Universal Service Fund (USF) tax applies in many states (this in addition to the federal USF) and is generally applied on a percentage basis. The rates for this fee are generally around 1 percent, though Nebraska and Kansas have fees of 4.37 percent and 4.18 percent, respectively. These additional fees are not limited to cell phones, though the cell phone rates sometimes differ from landline rates. Virginia’s rate is 75 cents for both landlines and cell phones, while West Virginia’s landline rate is higher than the cell phone rate—$3.34 per month as opposed to $3 per month.

Electricity taxes are applied either by the kilowatt-hour or on gross revenue. Texas’s electricity tax takes a graduated percentage of revenue, from 0.581 percent to 1.997 percent, depending on the size of the city or town in which electricity is provided. Montana’s tax is 0.015 cents per kilowatt hour of delivered electricity.

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Public-utility Tax Revenue

Public-utility tax revenue accounted for 2.07 percent of tax revenue collected by the states in 2010 and has shown no noticeable trend in the Census revenue data; utility taxes have been about 2 percent of tax revenue for the past 50 years. As with other taxes, in some states public utilities are more important than in others. In Florida, 40 percent of excise tax revenue and 9.8 percent of overall tax revenue was from utility taxation in 2010. Alabama stands out as well, collecting 9.9 percent of tax revenue from these sources.\(^{46}\) Total tax collections from utility taxation for the states was $14.6 billion.

Tourism Taxes

Often advocated as a way of taxing out-of-state visitors who otherwise would underpay for state services, some excise taxes apply to services more likely to be consumed by tourists than by state residents. These taxes are often imposed as a surcharge in addition to state sales taxes and include hotel taxes and rental car taxes. Such taxes are defended on the basis of a “benefits principle,” which simply states that those who benefit from government services ought to pay for them. Visitors to a state certainly benefit from public services, such as police protection, roads, etc., but do not pay taxes that would require state residents to file a tax return.

Tourism Tax: Hotel Tax

Variously called hotel/motel taxes, transitory guest taxes, accommodation taxes, or lodging taxes, excise taxes on temporary lodging are common in both states and specific cities. These taxes are calculated as a percentage of the rental charge, and are commonly between 6 to 12 percent of the hotel price. Delaware, despite having no sales tax, applies an 8 percent “accommodation tax” to all hotel and motel stays.\(^{47}\) In Texas, the rate is 6 percent. Equivalently


\(^{46}\) Authors’ calculations from Census Bureau data.

\(^{47}\) Delaware Tourism, “FAQs: Does Delaware Have a State Sales Tax?” http://www.visitdelaware.com/visitors/faq/#Does the state of Delaware have a state sales tax?.
or very nearly so, Illinois imposes the tax on hotel operators at a rate of “6 percent of 94 percent of gross receipts.” These taxes are applied in addition to state sales taxes.

It is common for cities to impose their own hotel taxes. New York City taxes hotel rooms at 5.875 percent, raised from 5 percent in March 2009. In West Virginia, it is left up to the counties to decide whether or not to impose a hotel tax, but for those counties who do so, the rate itself is mandated at 3 percent.

Tourism Tax: Car-rental Tax

According to the National Business Travel Association, there are 38 states which impose special taxes on car rentals. Different states apply different methods of taxation, some taxing a percentage of the rental price while others impose a fixed-amount excise tax, applied on a per day basis. In states with rental car taxes, the percentage of taxes is the more common method, and a typical rate will be around 5 percent of the rental price. Alaska, Nevada, and Maryland have some of the highest rates in the country at 10 percent in both Alaska and Nevada and 11.5 percent for rentals in Maryland. Arkansas, Iowa, and South Carolina all have rates of 5 percent, while Kansas and Utah are on the lower end, at 3.5 percent and 2.5 percent, respectively. Some of the states which impose fixed-rate taxes are Hawaii at $3 per day and Florida at $2 per day.

The issue of fixed-amount taxation has been the subject of some discussion in New Jersey, which imposes a $5 flat rate on rentals for every day or part of a day. Specifically, there has been some dispute over whether this tax ought to apply, as it does currently, to “car sharing”

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services such as Zipcar, whose customers typically rent for very short periods, often one or two hours, but are charged the full daily excise tax.\textsuperscript{52}

\textbf{Soft-drink Tax}

A currently rare but frequently discussed excise tax is the tax on sweetened sodas and other soft drinks. Only two states, Arkansas and West Virginia, impose taxes on these beverages.\textsuperscript{53} Arkansas taxes soft-drink syrup at $2.00 per gallon, canned drinks at 21 cents per gallon, and powdered soft-drink mixes at 21 cents per gallon produced.\textsuperscript{54} In West Virginia, the tax is 1 cent per half-liter of bottled drinks, 80 cents per gallon on syrup, and 1 cent per ounce of drink powder.\textsuperscript{55} Instances of legislatures considering soft-drink taxes are much more common than the taxes themselves. In 2011, a bill was introduced in the Texas House of Representatives proposing a tax of 1 cent per ounce on soft drinks.\textsuperscript{56} A similar bill was proposed but not voted on in California.\textsuperscript{57} New York State considered such a bill as a revenue-raising measure in 2010, but this proposal, too, was not enacted.\textsuperscript{58} New York’s Governor David Paterson in 2008 called the proposed tax an “obesity tax,” indicating perhaps the perspective that such taxes belong in the category of “sin taxes,” intended to curb harmful behavior in addition to their revenue-generating function (although, of course, one cannot gain revenue if the sinful behavior is eliminated).\textsuperscript{59}

Soft-drink taxes, like taxes on alcohol, apply to all uses of soft drinks, even when only some uses

are harmful. Taxing these drinks is a rather blunt instrument for achieving the goal of reducing obesity.

**IV. Summary and Conclusion**

Table 1 provides a summary of the most importance excise-tax revenue generators in the states for fiscal year 2010. Clearly, revenue generation is a function of state size, so it is informative to compute excise-tax revenue per capita as in column 2 of Table 1. A shortcoming of this procedure is that it is not necessarily informative about the tax burden on state residents. This is because out-of-state residence bear many of the amusement taxes collected in Nevada, and because some states use excise taxes instead of income taxes to collect revenues, as for example, New Hampshire. The highest excise tax revenues are collected in Connecticut, Nevada, New Hampshire, Minnesota, and West Virginia, with over $600 in excise revenues per capita. Wyoming stands as the only state with less than $200 in excise-tax revenues per capita.

Excise taxes play an important role in public finance and public policy. On the finance side, they are an important source of revenue, making up 17 percent of total tax revenue in 2010. One should keep in mind that states like Delaware and New Hampshire, which have no general sales tax, nonetheless collect significant revenue from selective sales taxes; in these two states, selective sales taxes made up 17 percent and 38 percent, respectively, of total tax revenue in 2010. In terms of public policy, the selective nature of these taxes gives state governments a useful tool in discouraging certain types of consumption. Cigarettes, alcohol, and, lately, sugary soft drinks are among the items whose use is influenced or might be influenced by state governments through excise taxation. Although excise taxes create deadweight losses compared to a no-tax baseline, they are efficient in comparison to prohibition. A further consideration is that, where charging users directly for publicly provided goods and services is costly, excise taxes on complementary goods may be reasonable, as with fuel taxes as a proxy for the use of public roads. This argument for excise taxes applies in a particular way to visitors and tourists, who do not pay other state taxes. Though some economists might like to see excise taxes replaced by a
broad-based, single-rate tax on all consumption to reduce distortion, discussions by lawmakers in recent years have focused on the usefulness of excise taxes to accomplish a variety of purposes.
Fig. 1: Proportion of State Government Tax Collections from Excise Taxes, 1951-2010
Source: Authors’ Calculations using Census Bureau data
Fig. 2: Relative Proportion of Selected Excise Taxes Relative to Total Excise Collections, 1951-2010
Source: Authors' Calculations using Census Bureau data