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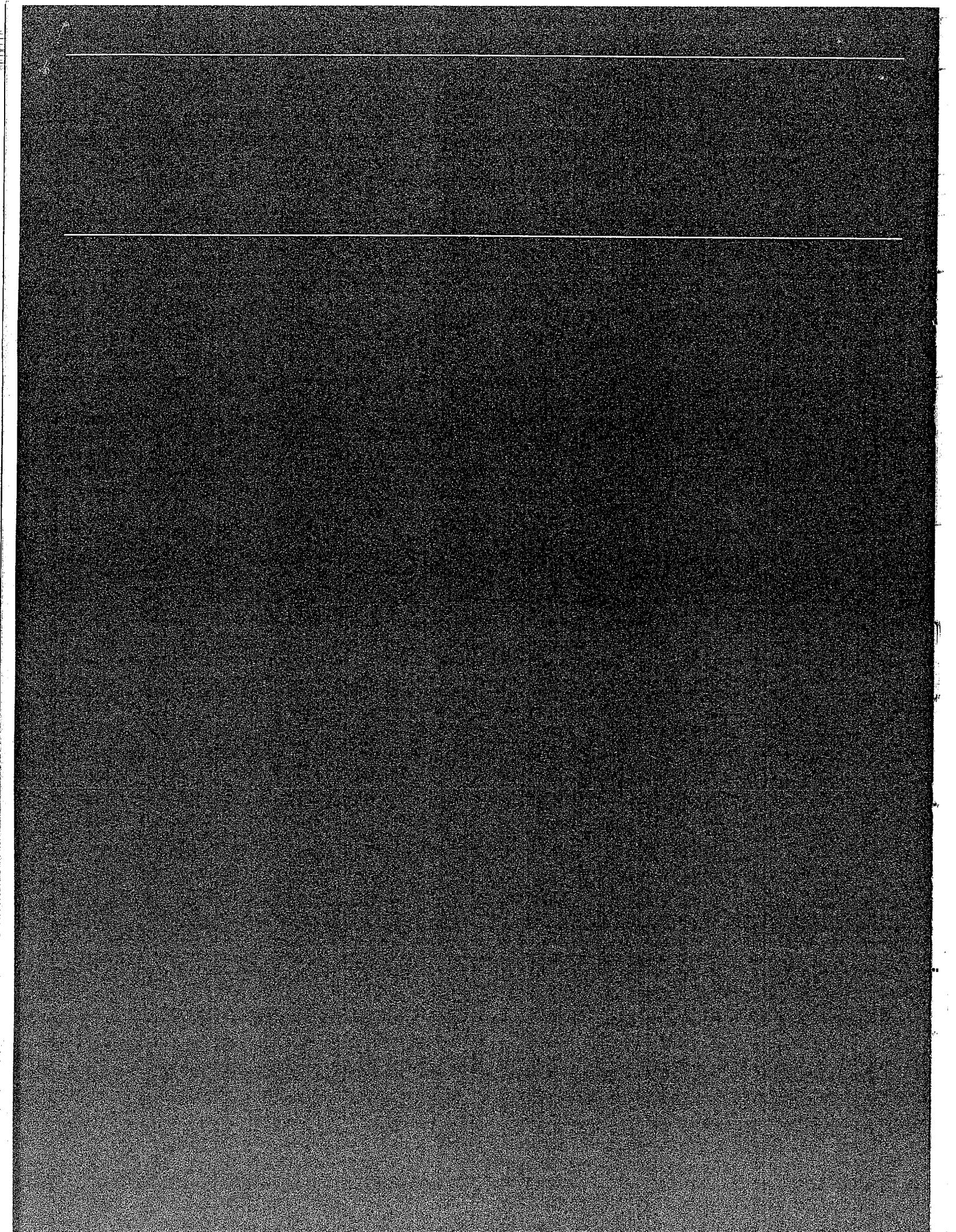
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TAX POLICY

Revenue Potential of Restoring Excise Taxes to Past Levels



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The Honorable Dan Rostenkowski
Chairman, Joint Committee on Taxation

The Honorable Lloyd Bentsen
Vice Chairman, Joint Committee on Taxation
Congress of the United States

This report discusses the revenue potential of indexing certain excise taxes to reflect inflation. Congress has not changed the rates of a number of excise taxes for many years, or it has increased them by an amount that did not keep pace with inflation. The report was prepared pursuant to GAO's basic statutory authority. We undertook the effort to assist Congress in its consideration of options for reducing the federal budget deficit.

We are sending copies of this report to the Secretary of the Treasury and the Director of the Office of Management and Budget as well as appropriate congressional committees and Members of Congress. Major contributors to this report are listed in appendix III.

A handwritten signature in cursive script that reads "Jennie S. Stathis".

Jennie S. Stathis
Director, Tax Policy and
Administration Issues

Executive Summary

Purpose

The federal budget deficit is one of the most important issues facing Congress and the new administration. Its reduction will involve making decisions on a combination of spending cuts and revenue increases. Although excise taxes account for a small portion of total federal revenues (an estimated 3.7 percent in fiscal year 1989), increasing their rates could be a way to raise needed revenues.

To assist in the debate over whether or not to increase excise taxes, GAO identified certain excise taxes whose rates have not kept pace with inflation. At GAO's request, the staff of the Joint Committee on Taxation estimated the revenue potential associated with adjusting these rates to reflect inflation. GAO also examined the policy and administrative issues associated with increasing excise taxes and preventing inflation-induced rate erosion in the future.

Background

Revenues generated from excise taxes are deposited either into the general fund or into specific trust funds. In fiscal year 1989, about \$15.3 billion in excise tax collections are projected to go to the general fund, with the remaining \$19.9 billion going to various trust funds. GAO reviewed only general fund excise taxes. Trust fund taxes were excluded because their revenues do not offset the federal funds deficit.

Federal excise taxes are generally imposed as either a percentage of the price of the product or service (ad valorem) or as a fixed dollar amount per unit. GAO selected per unit taxes for review because, unlike ad valorem taxes, the revenue from per unit taxes does not change with the price of the good or service; therefore, the real dollar value of the per unit tax falls with inflation.

The per unit taxes GAO selected included those imposed on alcohol, tobacco, gas guzzler cars, certain weapons, and wagering occupations. To estimate the revenue potential of adjusting these taxes to reflect inflation, GAO indexed the tax rates to various measures of price changes from two points in time: (1) 1965, the last comprehensive review of excise taxes by Congress and (2) the date of the last rate change for each tax reviewed. Then, using these indexed rates, the Joint Committee on Taxation staff estimated the revenue that could be realized from each tax for 1989 and for the 5-year period 1989 through 1993. High and low estimates for each tax were computed by generally using two producer price indexes—the all commodities index and a commodity specific index. (See pp. 9 to 12.)

Results in Brief

Had the excise taxes in GAO's review been indexed to keep pace with inflation, the Joint Committee on Taxation estimates that they would generate additional revenues of \$2 to \$13 billion in 1989 and \$12 to \$75 billion over the 5-year period 1989 to 1993. The estimates vary depending on the index used and the time period indexed.

Besides indexing, another option for maintaining the real dollar value of excise tax rates in the future is to convert per unit rates to ad valorem rates. These ad valorem rates could be set to produce the same revenues as the indexed per unit rates.

Beyond the revenue considerations involved in a decision to maintain excise tax rates in real dollar terms, tough tax policy issues are involved. Both proponents and opponents of rate increases strongly argue their positions. In addition, administrative difficulties may be encountered if rates are indexed or changed to an ad valorem structure. However, GAO does not believe these difficulties are insurmountable.

GAO Analysis

GAO found several per unit excise taxes in the general fund that have remained at the same rate for decades. For example, excise taxes on beer, wine, small cigars, cigarette papers, and National Firearms Act weapons have been imposed at their current rates for over 30 years. GAO also found tax rates that have changed, but by amounts less than the rate of inflation. Since 1965, the Consumer Price Index has risen 276 percent. Thus, many per unit excise taxes impose a relatively lower tax burden today than they have historically. (See pp. 20 and 21.)

Results of Indexing Excise Tax Rates

Table 1 summarizes the 1989 revenue potential from indexing these rates. The estimates represent the net contribution to federal receipts from each excise tax. The revenues presented are the lowest and highest dollar estimates calculated. (See p. 44.)

Table 1: Revenue Estimates for 1989

Excise tax group	Current rates	Revenue estimates based on			
		Indexing since date of last change		Indexing since 1965	
Alcohol	\$4,292	\$5,604	\$8,005	\$7,787	\$10,807
Tobacco	3,342	3,608	5,299	5,449	9,868
Gas guzzlers	65	69	71	69	71
Weapons	2	5	7	2	2
Wagering occupations	8	9	11	21	28
Total^a	\$7,708	\$9,296	\$13,393	\$13,328	\$20,776

^aTotals may not add up due to rounding.

An alternative to indexing rates to maintain their real dollar value is to convert per unit rates to ad valorem rates. For example, the \$2.40 per unit rate for sparkling wine would be equal to an average 2.3 percent ad valorem rate. (See p. 46.)

Administrative Difficulties Exist but Are Surmountable

Increasing or changing the rate structure of federal excise taxes may pose administrative problems. Per unit taxes are easier to administer than ad valorem taxes, according to a majority of the federal and state officials interviewed by GAO. They believe that calculating tax liability on the basis of a specific number of units sold or transferred is easier than basing the tax liability on the price of the good or service.

For example, the occurrence of intra-company sales could make it difficult to determine the market price and therefore the tax liability. Administrative problems can also arise from indexing if an additional tax is imposed on existing inventories. Since many of these difficulties have been dealt with in the past, GAO does not believe them to be insurmountable. (See p. 22.)

Other Issues Requiring Consideration

Opponents of excise tax increases argue that excise taxes are regressive, i.e., the relative tax burden is borne more heavily by low-income taxpayers. In addition, they believe an increase in rates would result in decreased consumption, which could cause economic harm to private industries and the states in which they are located. Proponents believe that increases in excise tax rates are justified because this would raise revenue and help reduce the deficit, as well as offset some of the social costs resulting from the consumption of the taxed items. (See pp. 24 to 31.)

Recommendations

GAO presents no recommendations in this report. However, if Congress decides to restore the taxes addressed in this report to their historic levels, several key decisions must be made. These include the index to be used and the time period covered by the adjustment.

Agency Comments

Responsible officials of the Bureau of Alcohol, Tobacco and Firearms and the Internal Revenue Service provided comments on the tax administration issues discussed in this report. In general, they agreed with GAO's analysis. The Internal Revenue Service emphasized that lead time is necessary for implementing a change to the current excise tax structure. (See p. 12.)

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Abbreviations

ATF	Bureau of Alcohol, Tobacco and Firearms
BLS	Bureau of Labor Statistics
CBO	Congressional Budget Office
CPI	Consumer Price Index
IRS	Internal Revenue Service
JCT	Joint Committee on Taxation
NFA	National Firearms Act
PPI	Producer Price Index

Introduction

The federal government imposes a wide variety of excise taxes on the manufacture, sale, or use of certain goods, services, and occupations. Commodities subject to federal excise taxes include alcoholic beverages, tobacco products, motor fuels, heavy tires and trucks, coal, pistols and revolvers, and sports and fishing equipment. Services taxed include domestic air transportation, communications, and foreign insurance policies. Excise taxes also apply to certain occupations, such as brewers.

Excise taxes are imposed at specific dollar amounts per unit of product, at a percentage of the product's value (ad valorem), or some combination. Excise tax receipts are deposited in either the general fund of the U.S. Treasury or specific trust funds depending on what Congress has designated. Table I.1 in appendix I shows the current rates for general and trust fund excise taxes.

The Office of Management and Budget estimates that revenues from excise taxes will amount to \$35.2 billion in fiscal year 1989. Of that amount, \$19.9 billion will be deposited in trust funds, and \$15.3 billion will be deposited into the general fund.

The amount of revenue raised through excise taxes has become an important issue as decisionmakers grapple with ways to reduce the federal deficit. Several studies have addressed the revenue-raising potential of certain excise taxes, and numerous bills introduced in the 100th Congress contained proposals to raise revenue by increasing excise tax rates. Our report examines the revenue potential associated with various options for systematically changing per unit excise tax rates to reflect past and future inflation.

History of Excise Taxes

Federal excise taxes date back to the beginning of the republic. Of the current excise taxes, those on tobacco and alcohol products have the longest history. In fact, federal internal taxation began in 1791 with the excise tax on distilled spirits. During the late 1700s, the Federalist administration introduced an elaborate excise tax system that included taxes on liquor, carriages, snuff, sugar, and auction sales as well as legal investments and bonds. Revenues from these first excise taxes were used to pay the Revolutionary War debt. Despite their importance in financing federal debts, these taxes excited much resentment and led to the Whiskey Rebellion of 1794 and were repealed in 1802. Many of these taxes were revived during the War of 1812 but continued for only 4 years.

This early use of excise taxes to finance wars set a pattern for the future. Congress increased the rates of existing taxes and imposed new ones to generate revenues during the Civil War, Spanish-American War, World War I, the Great Depression, World War II, and the Korean War. After most of these crises, Congress repealed many of the excise taxes, only to reintroduce them during the next crisis.

Since the Korean War, Congress has primarily imposed excise taxes to either fund certain programs or promote various social goals. Congress first earmarked excise taxes for specific trust funds when it required, as part of the Highway Revenue Act of 1956, that excise taxes on gasoline and other related goods be set aside for the Highway Trust Fund. Since then, Congress has earmarked other excise taxes for trust funds.¹

By the mid-1960s, a hodge-podge of excise taxes existed. Imposed as emergency revenue-raising measures, they were not developed on any systematic basis. After examining all excise taxes, Congress passed the Excise Tax Reduction Act of 1965 to sustain the economic expansion brought on by the prior year's reduction in individual income tax rates. Although this act reduced the rates of several excise taxes and eliminated many others, it made permanent the temporary alcoholic beverage and cigarette rates to meet revenue requirements. The act left a tax system in which substantially all of the remaining excise taxes fell in one of three categories: user fees (e.g., taxes on gasoline and tires); sumptuary taxes or "sin" taxes (e.g., taxes on alcohol and tobacco); or regulatory taxes (e.g., the tax on occupational wagering).

Excise taxes introduced since 1965 were often justified to promote social goals. These taxes include the gas guzzler tax on fuel-inefficient vehicles and the tax on hazardous chemical substances.

Objectives, Scope, and Methodology

Our objectives were to:

1. Identify per unit excise taxes whose rates have not kept pace with changes in the price of the good or service taxed and, for each of those taxes, determine why the tax was imposed and, where applicable, subsequently amended.

¹Major current trust funds receiving excise tax revenues are the: Highway Trust Fund; Airport and Airway Trust Fund; Hazardous Substances Superfund; Oil Spill Liability Trust Fund; Leaking Underground Storage Tank Trust Fund; Harbor Maintenance Trust Fund; Inland Waterways Trust Fund; Aquatic Resources Trust Fund; Black Lung Disability Trust Fund; Deep Seabed Revenue Sharing Trust Fund; and Vaccine Injury Compensation Trust Fund.

2. Estimate the additional revenue that might be generated if selected excise taxes were adjusted for inflation.
3. Analyze the policy and administrative issues associated with indexing or converting per unit rates to ad valorem.
4. Identify issues associated with increasing excise taxes, including arguments for and against raising excise tax rates.

We focused on per unit excise taxes because, unlike ad valorem taxes, the revenue per tax unit does not change automatically as the price of the unit changes and, therefore, the real dollar value of the per unit rate falls as the general price level increases.

We included only those excise taxes whose revenues are deposited into the general fund. Trust fund taxes were excluded because their revenues do not offset the overall need for borrowing as reflected in federal funds deficit, although they do offset the total deficit due to transfers within the budget.²

We reviewed the general fund, per unit excise taxes on alcohol, tobacco, gas guzzler cars, National Firearms Act (NFA) weapons, and wagering occupations. Occupational taxes that were imposed or whose rates were increased in 1987 and the new excise tax on pipe tobacco that became effective on January 1, 1989, were excluded from our review.

To address the first objective, we reviewed information on federal excise taxes in the Internal Revenue Code, Joint Committee on Taxation (JCT) documents, Office of Management and Budget historical tables of revenue collections, and Internal Revenue Service (IRS) annual reports. To determine when, why, and at what rate a tax was imposed, we reviewed the pertinent legislative history, economic history texts, and other relevant literature.

To estimate the revenue potential from increasing selected excise taxes, the current tax rates for alcohol (distilled spirits, wine, and beer); tobacco (cigars, cigarettes, and related products); gas guzzlers; NFA weapons; and wagering occupations were indexed to price changes since the effective date of their last rate changes.

²The total deficit of \$155 billion for 1988 is composed of the federal fund deficit (\$253 billion) minus the surplus in the trust funds (\$98 billion). Although total trust fund taxes were excluded from our study, our analysis for maintaining constant dollar rates could be extended to the trust fund taxes.

These taxes were also indexed from their rates in 1965 to the present. This indexing option reflects the fact that while some of the excise tax rates in our study have not risen for 30 or more years, some have risen, but by amounts less than the rate of inflation. This year was chosen because the Excise Tax Reduction Act of 1965 was the last time Congress undertook a comprehensive examination of excise taxes. Moreover, inflation rose more rapidly after 1965 than it did before that date.

To adjust the rates to what they would be in 1989 had they kept up with price changes, the all commodities producer price index (PPI) and one or more commodity specific PPIs were generally used. Both types of indexes were used because price increases in some taxed items rose faster or slower than the overall rate of inflation. To obtain data and information on price indexes to determine the most appropriate ones for this review, we contacted officials at the Department of Labor's Bureau of Labor Statistics (BLS) and the Department of Commerce's Bureau of Economic Analysis. A more detailed analysis of our indexing methods is discussed in appendix II.

Using current and adjusted tax rates, the JCT produced revenue estimates for 1989 and the 5-year period 1989 to 1993. These fiscal year estimates represent the net contribution to federal receipts from excise tax rates under present law and alternative indexing options. The estimates take into account the change in income taxes attributable to a change in excise taxes. Therefore, these amounts differ from reported gross collections. In addition, these estimates assume an ongoing indexing structure and do not incorporate transition effects.

To analyze the policy and administrative issues associated with indexing per unit rates or converting them to ad valorem rates, we reviewed various documents, studies, and statements obtained from the two federal agencies responsible for administering excise taxes—the Bureau of Alcohol, Tobacco and Firearms (ATF) and IRS—and interviewed officials from those two agencies. So that we could compare ad valorem and per unit rate structures, the JCT calculated ad valorem rates for excise taxes on alcohol, tobacco, and gas guzzler cars. These rates were estimated to be equivalent in terms of revenue generated from current and adjusted per unit rates. The JCT did not calculate ad valorem rates for excise taxes on NFA weapons or wagering occupations because these taxes do not easily allow for such a conversion.

We contacted state tax administration officials in California, Florida, Hawaii, Kansas, Kentucky, Mississippi, Texas, and Washington to determine how they administer certain excise taxes. We selected those states on the basis of how their alcohol excise taxes were imposed and administered. To obtain a cross-section of states, we contacted alcohol controlled states (those with state stores), private enterprise (licensed) states, those currently imposing per unit alcohol taxes, and those currently imposing ad valorem alcohol taxes.

We also contacted tax officials in Canada and Australia to determine how they have indexed and administered their excise taxes. We selected those countries because they have had recent experience in indexing excise taxes.

To identify arguments for and against increasing excise taxes, we reviewed various federal hearings relating to revenue proposals that involved excise taxes, including testimonies by the Department of the Treasury. We obtained and analyzed excise tax studies that were prepared by the Congressional Budget Office (CBO), the JCT, the Office of Technology Assessment, and the U.S. Department of Agriculture.

We also interviewed and obtained studies and data from industry representatives and interest groups concerned about excise taxes and excise tax increases. Industry groups we contacted included the Distilled Spirits Council of the United States, Inc.; Beer Institute; Winegrape Growers of America, Inc.; The Tobacco Institute, Inc.; and Cigar Association of America. Interest groups included the Coalition on Smoking OR Health, Center for Science in the Public Interest, Coalition Against Regressive Taxation, Institute for Research on the Economics of Taxation, and National Rifle Association of America.

We did not test the validity of the data or methodology of the studies we reviewed.

We did our review between December 1987 and January 1989 in accordance with generally accepted government auditing standards. Responsible officials of ATF and IRS informally provided us with comments on the administrative issues discussed in this report. In general, they agreed with our analysis. IRS suggested that we include a discussion on the lead time necessary for implementing a change to the current excise tax structure. ATF and IRS also made technical suggestions involving administrative matters. Their comments are incorporated where appropriate.

Alternatives for Increasing Excise Tax Revenues

As Congress struggles to reduce the federal deficit, it has various options for achieving that goal. One revenue-raising option would involve increasing per unit excise tax rates. Congress has not changed the rates of a number of excise taxes for many years, or it has increased them by an amount that did not keep pace with a 276-percent increase in overall inflation since 1965. (Table 2.1 shows the excise taxes included in our study, their current rates, and the dates they were last changed.) Thus, the real (or constant) dollar amounts of the per unit taxes are lower today than they were in 1965, or when the rates were last changed.

Table 2.1: Selected General Fund Per Unit Excise Taxes, Their Current Rates, and Date of Last Change

	Rate 1989	Effective date of last change
Alcohol taxes		
Distilled spirits	\$12.50/proof gal.	1985
Wines with more than 24% alcohol	\$12.50/proof gal.	1985
Wines		
Less than 14% alcohol	\$0.17/wine gal.	1951
14%-21% alcohol	\$0.67/wine gal.	1951
21%-24% alcohol	\$2.25/wine gal.	1951
Artificially carbonated wines	\$2.40/wine gal.	1951
Champagne and other sparkling wines	\$3.40/wine gal.	1951
Beer		
Large brewers	\$9/barrel	1951
Small brewers	\$7/barrel	1977
Tobacco taxes		
Cigars		
Small	\$0.75/1,000	1926
Large	8.5% of wholesale price, but not to exceed \$20/1,000 ^a	1977
Cigarettes		
Small	\$8/1,000	1983
Large	\$16.80/1,000 ^b	1983
Cigarette papers	\$0.005/50 papers ^c	1917
Cigarette tubes	\$0.01/50 tubes ^c	1917
Smokeless tobacco		
Snuff	\$0.24/lb.	1986
Chewing tobacco	\$0.08/lb.	1986

(continued)

**Chapter 2
Alternatives for Increasing Excise
Tax Revenues**

	Rate 1989	Effective date of last change
Gas guzzler tax		
Fuel economy rating (in miles/gallon) (For 1986 and thereafter models)		
At least 22.5	\$ 0/vehicle	1986 ^d
At least 21.5 but less than 22.5	\$500/vehicle	1986
At least 20.5 but less than 21.5	\$650/vehicle	1986
At least 19.5 but less than 20.5	\$850/vehicle	1986
At least 18.5 but less than 19.5	\$1,050/vehicle	1986
At least 17.5 but less than 18.5	\$1,300/vehicle	1986
At least 16.5 but less than 17.5	\$1,500/vehicle	1986
At least 15.5 but less than 16.5	\$1,850/vehicle	1986
At least 14.5 but less than 15.5	\$2,250/vehicle	1986
At least 13.5 but less than 14.5	\$2,700/vehicle	1986
At least 12.5 but less than 13.5	\$3,200/vehicle	1986
Less than 12.5	\$3,850/vehicle	1986
NFA firearms taxes		
Transfer taxes:		
NFA weapons in general	\$200/firearm/transfer	1934
Any other weapon ^e	\$ 5/firearm/transfer	1960
Making tax	\$200/firearm	1952
Wagering occupational excise taxes		
Unauthorized states	\$500/yr./wage acceptor	1974
Authorized states	\$50/yr./wage acceptor	1983

^aThe \$20 ceiling on large cigars was established in 1942.

^bLarge cigarettes measuring more than 6-1/2 inches in length are taxed at the rate prescribed for small cigarettes, counting each 2-3/4 inches (or fraction) as one cigarette.

^cIn 1955, Congress amended the rate structure so that papers and tubes measuring more than 6-1/2 inches in length are taxed at the rate prescribed, counting each 2-3/4 inches (or fraction) as one paper or tube. Tax does not apply to a book or set of cigarette papers containing 25 or fewer papers.

^dThe year 1986 refers to the vehicle's model year.

^eThe term "any other weapon" is statutorily defined and includes sporting rifles, fountain pen guns, belt buckle guns, and cane guns.

Source: Joint Committee on Taxation and relevant legislation.

Had excise tax rates kept pace with price changes in the past, excise tax revenues would be significantly larger than they are today. To estimate this potential in increased revenues, we indexed the excise tax rates in our review to measures of price changes since the date of their last rate changes and since 1965.

If Congress decides to increase excise tax rates, there are two methods to insure that the real dollar value of those rates does not erode over time without periodic congressional intervention. One alternative is to index per unit rates to an appropriate measure of price change, which would cause the rates to rise or fall as prices do. A second alternative is to convert per unit rates to ad valorem rates. Per unit revenues from ad

valorem taxes automatically keep pace with price changes because their rates are imposed as a percentage of the product's price.

Indexing Per Unit Excise Tax Rates

If the per unit excise taxes included in our review had been indexed for inflation since the effective date of their last rate change, the JCT estimates that they would generate additional revenues of \$1.6 to \$5.7 billion in 1989, and \$11.9 to \$36.4 billion over the 5-year period from 1989 to 1993.¹ Alternatively, had the excise taxes in our review been indexed for inflation since 1965, the JCT estimates that they would generate additional revenues of \$5.6 to \$13.1 billion in 1989, and \$32.9 to \$75.3 billion over the 5-year period from 1989 to 1993. (See table I.12.) If Congress decides to implement indexing, it would have to address several policy issues, such as which index to use, how often to index, and whether to permit downward indexation adjustments in tax rates as prices fall.

Alcoholic Beverage Excise Taxes

Alcoholic beverage excise taxes are currently imposed on the production or importation of distilled spirits, wine, and beer. Except for a rate increase for distilled spirits in 1985 and a rate subsidy to small brewers in 1977, alcoholic beverage excise tax rates have remained the same since 1951. As an example of how inflation has reduced the real dollar value of the beer tax, the current \$9 per barrel tax would now be over \$32 if the tax had been indexed since 1951. (See table I.2.)

As shown in table I.12 in appendix I, the JCT has estimated that if all of the alcoholic beverage excise taxes had been indexed for inflation since their last rate changes, they would generate additional revenues of \$1.3 to \$3.7 billion in 1989, and \$8.7 to \$23.0 billion over the 5-year period from 1989 to 1993. Alternatively, had these rates been indexed for inflation since 1965, the JCT estimates that they would generate additional revenues of \$3.5 to \$6.5 billion in 1989, and \$19.7 to \$36.5 billion over the 5-year period from 1989 to 1993.²

¹The range in estimated revenues is a function of the dates of last rate changes and the type of indexes used to adjust the rates for inflation. See appendix II for a discussion of how the adjustments were calculated.

²These estimates reflect JCT's assumption that nominal revenues from excise taxes on distilled spirits will decline under present law rates between 1989 and 1993 due to declining consumption.

Tobacco Excise Taxes

The federal government imposes excise taxes on the manufacture or importation of the following tobacco and tobacco-related products: small and large cigars, small and large cigarettes, cigarette papers and tubes, snuff, and chewing tobacco.³ Snuff and chewing tobacco are taxed by weight, and large cigars are taxed at 8.5 percent of their wholesale price, with a maximum rate of \$20 for each 1,000 cigars. The remaining tobacco and related products are taxed by quantity. Congress amended several of these taxes during the 1970s and 1980s, but, in general, these changes did not make up for the inflation that had occurred over the years.

Before 1977, large cigars were taxed at rates ranging from \$3 to \$20 for each 1,000 cigars, depending on their retail price. In 1977, Congress converted the per unit rates to a single ad valorem rate based on wholesale price⁴ but kept the \$20 ceiling that was first enacted in 1942. Had this \$20 ceiling kept pace with overall inflation since 1942 it would now be about \$130. Likewise, although Congress doubled the per unit rates for small and large cigarettes in 1983, the change did not offset all of the inflation-induced erosion of the tax rate. For example, had the rate on small cigarettes risen at the same rate as overall inflation since 1965, it would now be over \$13 instead of its current rate of \$8. Moreover, had the tax kept pace with price changes in cigarettes since 1965, the rate would now be over \$27. (See table I.4.) Finally, in 1986, Congress reenacted the excise tax on chewing tobacco at a rate of 8 cents a pound—2 cents less than the rate when it was repealed in 1965.

Table I.12 in appendix I shows how excise tax revenues might increase if each rate for tobacco and tobacco-related products were indexed to compensate for inflation. According to JCT estimates, if these rates had been indexed since they were last changed, they would generate additional revenues of \$266 million to \$2.0 billion in 1989, and \$3.1 to \$13.3 billion over the 5-year period from 1989 to 1993. Alternatively, had these rates been indexed since 1965, the JCT estimates that they would

³As of January 1, 1989, the federal government also imposes a 45 cents per pound excise tax on pipe tobacco.

⁴The per unit tax was a system of bracketed rates based on the retail price of large cigars. For example, before 1977, large cigars that retailed at more than 15 cents each but no more than 20 cents each were taxed at \$15 per thousand. The effective rate of this tax varied widely among different manufacturers depending on where the price fell within the bracket system of rates. In converting to an ad valorem rate, Congress decided not to use the revenue neutral rate of 10 percent of wholesale price but, instead, chose a lower rate of 8.5 percent. Congress chose to impose this lower ad valorem rate because it feared that a revenue neutral ad valorem tax would impose too great a burden on manufacturers who had previously enjoyed low effective tax rates.

generate additional revenues of \$2.1 to \$6.5 billion in 1989, and \$13.0 to \$38.6 billion over the 5-year period from 1989 to 1993.⁵

Gas Guzzler Excise Tax

The gas guzzler tax, enacted in 1978, is imposed on automobiles that were manufactured after 1979, weigh 6,000 pounds or less, and fail to meet specified miles-per-gallon ratings. Congress enacted this legislation to (1) reduce consumer demand for fuel-inefficient cars, (2) encourage manufacturers to produce fewer of these cars, and (3) make purchasers of fuel-inefficient cars pay for the privilege of detracting from national conservation efforts.

This excise tax varies from \$500 to \$3,850 a vehicle depending on the model year and the vehicle's miles per gallon rating. When the gas guzzler excise tax was enacted, Congress imposed rates for automobile model years 1980 through 1986 and extended the 1986 rates to model years after that. Thus, the gas guzzler excise tax rates have not changed since model year 1986.

As shown table I.12 in appendix I, the JCT estimates that indexing gas guzzler excise tax rates for inflation since 1986 would generate additional revenues of \$3.7 to \$6.0 million in 1989 and \$57.0 to \$87.8 million over the 5-year period from 1989 to 1993.

Firearms Excise Taxes

The National Firearms Act of 1934 imposed a \$200 excise tax on the transfer of certain weapons, such as machine guns, certain sawed-off shotguns and rifles, and silencers. Legislation in 1952 extended this tax to the production or making of NFA firearms, which includes modifying a weapon by converting a semi-automatic weapon into a machine gun, or sawing off the barrel of a shotgun or rifle to less than certain specified lengths.⁶

Congress imposed the tax in part to prevent criminals from obtaining certain types of weapons. Beginning in 1934, the act imposed substantial fines and/or imprisonment for owning or possessing an unregistered and

⁵These estimates reflect the JCT's assumption that nominal revenues from excise taxes on cigarettes will decline under present law rates between 1989 and 1993 due to declining consumption.

⁶Currently, certain transfers of NFA weapons, such as those between NFA dealers or transfers to federal, state, and local government entities, are tax exempt. Effective May 19, 1986, Congress prohibited the transfer or possession of a machine gun unless it is under the authority of federal, state, or local governments or was lawfully transferred or possessed before that date.

untaxed weapon. The Gun Control Act of 1968 strengthened the regulatory provisions of the NFA by extending the act, including the taxes, to cover destructive devices, such as bombs, grenades, and mines; by extending the registration requirements to cover all weapons within the scope of the act; and by increasing the penalties for violations.

Since 1934 Congress has changed the \$200 transfer rate only once. Legislation in 1960 lowered the tax rate to \$5 for sporting rifles and unique weapons often sought by collectors, such as fountain pen guns, belt buckle guns, and cane guns. Congress justified the reduction on the grounds that weapons eligible for the reduced rate are not commonly associated with criminal activity. The tax rate for all other weapons has remained at \$200.

Table I.12 in appendix I shows the potential gain in revenue from adjusting the firearms tax rates for price changes. If those taxes had been indexed for inflation since their last rate changes, the JCT estimates that they would generate additional revenues of \$3.8 to \$5.3 million in 1989, and \$20.3 to \$30.0 million over the 5-year period from 1989 to 1993. Alternatively, had these taxes been indexed for inflation since 1965, the JCT estimates that they would generate additional revenues of \$800,000 in 1989, and \$5.3 to \$6.0 million over the 5-year period from 1989 to 1993.

Occupational Wagering Excise Taxes

Occupational wagering excise taxes were enacted in 1951 to raise revenue. These taxes are collected annually from all individuals who, either as principals or agents of another, accept wagers placed on certain types of gambling, such as lotteries,⁷ betting pools, and sporting events and contests.

Since enactment, occupational tax rates on wager acceptors have increased once, from \$50 a year in 1951 to \$500 a year in 1974. Effective in 1983, however, Congress reduced the tax rate on wager acceptors in states that authorize gambling to \$50 a year.

Table I.12 in appendix I shows how excise tax revenues might change if occupational wagering tax rates were indexed for inflation. If they had been indexed for inflation since their last rate changes, the JCT estimates that they would generate additional revenues of \$1.5 to \$3.8 million in 1989, and \$13.5 to \$22.5 million over the 5-year period from 1989 to

⁷Wager takers in certain types of lotteries, such as state-run ones, are exempt from taxation.

1993. Alternatively, had these taxes been indexed for inflation since 1965, the JCT estimates that they would generate additional revenues of \$13.5 to \$20.3 million in 1989, and \$78.8 to \$111.0 million over the 5-year period from 1989 to 1993.

Policy and Administrative Issues Surrounding Indexation

It has been argued that automatic indexing takes legislative decision-making away from Congress in deciding the appropriateness of tax rate increases and does not hold lawmakers accountable. On the other hand, once in place, indexing would maintain revenues (in constant dollar terms and assuming everything else remains the same) in times of rising prices without requiring further legislative action. If Congress decides to implement indexing, it will need to address various policy questions, such as which index to use, whether to index tax rates to both upward and downward changes in prices, and how often to index.

Traditionally, proposals to index excise tax rates to insure that tax revenues keep pace with inflation have generally used the consumer price index (CPI). But while the CPI may be the best known indicator of overall inflation, the less familiar Producer Price Index (PPI) and its commodity components may be more appropriate measures of price changes for indexing some or all of the per unit excise taxes. This is because the PPI, unlike the CPI, does not include excise taxes in its calculation and therefore does not build an inflationary spiral into the indexing process. See appendix II for more information on selecting the proper index.

Another issue concerning indexation is whether to index tax rates to both upward and downward changes in prices. If the goal is increased revenue, Congress could choose to index rates only to upward changes in price as is currently done in Australia. Or, Congress could set a minimum excise tax below which rates could not be adjusted downward. This is currently done in Hawaii.

Another consideration is when and how often to adjust the rates. Before repealing indexing, Canada adjusted its rates on an annual basis. Hawaii and Australia currently adjust their rates every 6 months. An advantage of increasing rates semi-annually is that each rate change would be smaller than if the adjustment was made annually or on an ad hoc basis every few years. A potential disadvantage of semi-annual rate adjustments might be increased administrative costs for taxpayers. However, according to an Inland Revenue official in Australia, companies have become accustomed to the semi-annual tax rate increases so that the adjustments impose minimal administrative costs on them.

Another administrative consideration in indexing excise tax rates is the lead time necessary for the collecting agency to issue the announcements and other materials advising the public and agency employees of the new rate. While the lead time needed may vary depending on which tax is indexed, IRS believes at least 90 days would generally be necessary. Additional lead time may be needed for some taxes if computer programs must be revised, according to IRS officials.

In addition, administrative difficulties may occur if Congress decides to impose an additional tax on existing inventories along with rate increases due to indexing. Known as a floor stock tax, such a tax is imposed on the wholesaler or retailer to insure that inventories on hand on a specific date are subject to the increased tax, regardless of when the commodities were manufactured or purchased. Its purpose is to discourage a business from stockpiling merchandise acquired at the prior (lower) tax rate. The floor stock tax rate is usually set equal to the difference between the old and new excise tax rates and could be applicable whenever a rate increase is imposed.

A floor stock tax could pose administrative problems for the collecting agency because it may be imposed on businesses, such as wholesalers and retailers, not accustomed to paying excise taxes. A floor stock tax could also create administrative difficulties and compliance problems depending upon its level of imposition and the number of taxpayers involved. According to IRS, depending on the excise tax in question, a floor stock tax may significantly increase the number of taxpayer entities liable for the tax, many of whom may not be liable for any other excise tax. This expansion of liability can pose problems of taxpayer education and compliance coverage. Such problems would be increased in magnitude if floor stock refunds were used to compensate for downward indexing of rates.

However, in spite of the difficulties and resource burdens placed on ATF in administering the floor stock taxes on cigarettes in 1983 and on distilled spirits in 1985, ATF officials we spoke with said that it appears that these taxes are cost effective.

Converting Per Unit Rates to Ad Valorem

As an alternative to indexing, Congress could convert per unit excise taxes to an ad valorem structure to insure that the tax per unit changes as the price of the taxed item changes. In addition to policy concerns, this conversion could cause some administrative and compliance difficulties.

The JCT calculated ad valorem rates for 1989 that would be equivalent in revenue terms to current rates and indexed per unit rates. That is, these rates would generate the same amount of revenues that per unit rates would in that year. In future years, if prices increase and everything else remains the same, revenues from the ad valorem rates would be greater than those from the unchanged per unit rates. Conversely, should prices fall and everything else remains the same, revenues from ad valorem rates would decline. This is because the tax amount per unit for ad valorem rates is based upon dollar values and not upon quantity. Tables I.13 through I.15 in appendix I show these ad valorem rates.

Policy Issues Associated With Conversion to an Ad Valorem Structure

Some opponents of excise tax increases we spoke to opposed a conversion to ad valorem rates because they believed it would be another way of increasing excise taxes and that it would lessen legislative oversight as tax revenues per unit would automatically increase as the price of the taxed product or service increased. Moreover, they thought elected officials should be held accountable for any tax increase and not be able to put increases on "automatic pilot."

Those favoring tax increases generally felt that conversion to ad valorem could be an effective way of increasing tax revenues. However, as one official cautioned, the effect on revenues would depend upon the ad valorem percentage rate used in the conversion.

Converting to ad valorem rates does not insure that tax revenues will increase. If product prices decline, if the ad valorem rate is set too low, or if a ceiling on the rate is included, then excise tax revenues can decrease. For example, in 1977, when Congress converted the per unit tax on large cigars to an ad valorem rate with a fixed dollar ceiling, it decided not to use the revenue neutral rate of 10 percent of the wholesale price but chose instead a lower rate of 8.5 percent. It also set a maximum rate of \$20 for each 1,000 large cigars. ATF data show this ad valorem tax on large cigars to have yielded about \$30 million in excise tax revenues for fiscal year 1986. According to our calculations, which were based on large cigar data provided by ATF, if large cigars had still been taxed in 1986 under the old bracketed per unit rates, about \$33 million, or an additional \$3 million, would have been collected in 1986.

Although a conversion to ad valorem rates would be a departure from the way most of the goods and services we reviewed are currently taxed, the federal government presently imposes ad valorem excise

taxes on a wide range of goods and services. In addition, some states impose ad valorem taxes on alcohol and tobacco products.

Administrative Issues Associated With Ad Valorem Excise Taxes

Imposing an ad valorem excise tax entails administrative difficulties not associated with a per unit tax. However, the fact that numerous federal and state excise taxes are presently imposed as ad valorem taxes indicates that these problems are not insurmountable.

According to ATF, IRS, and state officials responsible for administering excise taxes, per unit taxes are easier to administer than ad valorem taxes. They feel it is easier for taxpayers to calculate, and auditors to verify, tax liability based on a quantifiable number of units sold. Several officials said they verify taxpayer liability on the basis of taxpayer inventory and sales data and on third-party documentation, such as shipping receipts, that is usually stated in unit measures, such as pounds, gallons, and packs. Determining tax liability for ad valorem taxes would require a more thorough analysis of taxpayer records of costs of goods sold than is currently necessary for per unit taxes.

During a 1986 Senate Finance Committee hearing, a Treasury Department official testified that one potential administrative problem associated with ad valorem taxes would be intra-company sales—that is, sales between vertically integrated firms. With intra-company sales, the selling or transfer price, and therefore the tax liability, might be less than if the transactions involved independent companies. The problem for ATF or IRS arises in trying to determine whether the selling price is set by the market or by the producer at an artificially lower level. The Treasury official did not indicate how often this situation occurs.

We asked ATF, IRS, and state officials if they viewed intra-company sales as a problem. State officials generally agreed that intra-company sales could be an administrative problem for ad valorem taxes. Although federal officials believe intra-company sales make auditing more complicated, they do have regulations and procedures for dealing with these non-arm's-length transactions when they arise.

Conclusions

If the excise tax rates in our review had kept pace with inflation since 1965, an estimated \$5.6 to \$13.1 billion in additional revenue could have been generated in 1989 and about \$32.9 to \$75.3 billion over the 5-year period from 1989 to 1993.

**Chapter 2
Alternatives for Increasing Excise
Tax Revenues**

Indexing per unit rates or converting to ad valorem rates present tax policy and administration issues that Congress may wish to consider in any deliberations over whether and how to raise revenue from excise taxes. Although changes to the current excise taxation scheme may pose problems of policy and administration, we do not believe them to be insurmountable.

Issues Associated With Increasing Excise Tax Rates

Besides increased revenue, other issues are associated with increasing excise tax rates. Those opposed to such increases argue that the relative burden of excise taxes is borne more heavily by low-income persons—a characteristic known as regressivity. They also point out that selective rate increases could hurt certain industries already experiencing economic decline.

Besides pointing to more revenue, those in favor of raising excise tax rates note that some rate increases might provide societal benefits by causing a decrease in the consumption of certain taxed products, like alcohol. Because most of these arguments generally arise when discussing taxes on alcohol and tobacco, this chapter focuses on those taxes. Some, if not all, of the arguments, however, may be applicable to other excise taxes.

Evidence on Regressivity Is Inconclusive

According to two public opinion surveys in 1987, a majority of the public favors increases in certain excise taxes, specifically those involving alcohol and tobacco, in lieu of income and other tax increases. Opponents to such increases believe, however, that a tax should be based on one's ability to pay and that excise taxes violate this principle. Instead, they argue, excise taxes fall most heavily on those with the least ability to pay. However, just how burdensome these taxes may be is subject to debate given the available data on the consumption of and spending for alcohol and tobacco products.

Public Support for Increased Alcohol and Tobacco Taxes

A November 1987 Harris Survey asked respondents which tax increases they favored in conjunction with spending cuts to reduce the federal budget deficit. Seventy-five percent of the respondents said they favored increasing alcohol and tobacco excise taxes. Of the type of tax increases presented, these were the only ones that met with a majority of public approval. Other options, such as enacting a value-added tax or raising energy or income taxes, were favored by less than one quarter of the respondents.

A Washington Post-ABC News Poll in June 1987 also found that 75 percent of those questioned favored raising excise taxes on alcohol and tobacco as a means of balancing the federal budget. Raising taxes on corporations and high-income people were favored by two-thirds of the respondents. However, raising taxes on everyone and raising excise taxes on gasoline, telephone calls, and airline tickets were opposed by more than half of the respondents.

Because both public polls sought opinions only on certain taxes, it is unclear how the public might react to proposed increases in other taxes, like those on gas guzzlers, NFA weapons, and wagering occupations.

Regressivity of Excise Taxes

A January 1987 Congressional Budget Office (CBO) staff working paper used data on income and expenditure patterns¹ to examine the regressivity of excise taxes. The study focused on seven excise taxes, including those on beer, wine, distilled liquor, and tobacco.² The effects from increasing selected excise taxes were measured relative to total family expenditures as well as family income. CBO included total expenditures because they are generally thought to reflect long-term income and may be a better measure of a family's permanent economic situation than income in a single year. According to economic theory, this is because family spending in any given year reflects not only present income but also past and expected future income as well. Data from the study are presented in table 3.1.

¹Data for CBO's analysis came from the Bureau of Labor Statistics, Consumer Expenditure Survey: Interview Survey, 1982-1983, and Consumer Expenditure Survey: Diary Survey, 1982-1983. Data were adjusted to 1985 by CBO using the growth rate in per capita expenditures and per capita income between 1982-1983 and 1985.

²The CBO study also examined excise taxes on gasoline, telephone, and airfare expenditures.

Chapter 3
Issues Associated With Increasing Excise
Tax Rates

Table 3.1: CBO Analysis of Excise Taxes and Excise Tax Increases by Income Class

	Yearly family income							
	All families	Under \$5,000	\$5,000-\$9,000	\$10,000-\$19,999	\$20,000-\$29,999	\$30,000-\$39,000	\$40,000-\$49,000	\$50,000 or more
Percent of families consuming:								
Distilled spirits	66.1%	25.6%	38.4%	59.8%	74.0%	73.9%	82.7%	89.8%
Beer	72.0	34.3	44.6	68.3	80.3	79.8	84.9	91.6
Wine	72.0	34.3	44.6	68.3	80.3	79.8	84.9	91.6
Tobacco	50.1	37.0	40.2	51.5	54.2	55.1	50.8	50.3
Average yearly expenditure:^a								
Distilled spirits	\$197	\$88	\$88	\$150	\$203	\$254	\$267	\$381
Beer	310	159	157	265	341	414	399	472
Wine	72	32	30	53	70	89	108	154
Tobacco	344	182	247	318	394	441	435	390
Average yearly tax currently paid:^a								
Distilled spirits	\$39	\$17	\$18	\$29	\$40	\$50	\$54	\$76
Beer	17	9	9	14	19	23	23	28
Wine	4	2	2	3	4	5	6	8
Tobacco	46	24	33	42	52	58	58	52
Average yearly tax currently paid as a percent of income:^a								
Distilled spirits	0.15%	0.75%	0.24%	0.20%	0.16%	0.14%	0.12%	0.11%
Beer	0.06	0.37	0.12	0.10	0.07	0.07	0.05	0.04
Wine	0.01	0.07	0.02	0.02	0.02	0.01	0.01	0.01
Tobacco	0.17	1.05	0.44	0.29	0.21	0.17	0.13	0.07
Average yearly tax currently paid as percent of total expenditures:^a								
Distilled spirits	0.17%	0.18%	0.16%	0.18%	0.18%	0.18%	0.16%	0.16%
Beer	0.08	0.09	0.08	0.09	0.08	0.08	0.07	0.06
Wine	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Tobacco	0.20	0.25	0.30	0.26	0.23	0.21	0.17	0.11
Increase in tax to generate \$1 billion:^a								
Distilled spirits	\$11	\$5	\$5	\$8	\$11	\$14	\$15	\$21
Beer	11	5	5	9	12	14	14	18
Wine	11	5	5	8	11	13	16	23
Tobacco	11	6	8	10	12	14	14	12
Increase in tax to generate \$1 billion as percent of income:^a								
Distilled spirits	0.04%	0.21%	0.07%	0.06%	0.04%	0.04%	0.03%	0.03%
Beer	0.04	0.23	0.07	0.06	0.05	0.04	0.03	0.02
Wine	0.04	0.20	0.06	0.05	0.04	0.04	0.04	0.03
Tobacco	0.04	0.25	0.10	0.07	0.05	0.04	0.03	0.02

(continued)

Chapter 3
Issues Associated With Increasing Excise
Tax Rates

	Yearly family income							
	All families	Under \$5,000	\$5,000-\$9,000	\$10,000-\$19,999	\$20,000-\$29,999	\$30,000-\$39,000	\$40,000-\$49,000	\$50,000 or more
Increase in tax to generate \$1 billion as percent of total expenditures:^a								
Distilled spirits	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.04%	0.04%
Beer	0.05	0.06	0.05	0.06	0.05	0.05	0.04	0.04
Wine	0.05	0.05	0.04	0.05	0.05	0.05	0.05	0.05
Tobacco	0.05	0.06	0.07	0.06	0.05	0.05	0.04	0.03

^aFigures are for all families, not just those consuming the taxable items.

Source: Congressional Budget Office.

CBO data show that current excise taxes on alcohol and tobacco are regressive relative to family income. However, alcoholic beverage excise taxes are generally proportional when compared to total expenditures for all families. Although tobacco taxes are regressive relative to income, they are less regressive when measured in comparison to expenditures.

CBO also examined the distributional effects from increasing various excise taxes to generate \$1 billion in additional revenue. Its data show that an increase in taxes paid as a percent of total expenditures for each income class is minimal and generally proportional across income classes, with the exception of the top two income classes. Even then, the difference between the bottom and top income classes is small. For example, if Congress decided to raise the liquor excise tax to generate \$1 billion in additional revenue, a family in the lowest income class would, on average, pay \$22 in liquor taxes a year, or \$5 more than the \$17 currently paid. This increase would represent 5/100 of 1 percent of the family's total expenditures. This same excise tax increase would, on average, require a family in the highest income class to pay about \$97 in liquor taxes a year, or \$21 more than the \$76 currently paid—an increase of 4/100 of 1 percent of the family's total expenditures. All families, on average, would pay \$50 a year in liquor excise taxes, or \$11 more than presently paid. This \$11 increase would represent 5/100 of 1 percent of their average total expenditures.

Proponents of excise tax increases believe that regressivity is an important issue. They do not believe, however, that the regressivity argument should be the decisive factor when discussing alcohol and tobacco excise tax increases, because they view the purchase of these commodities as being discretionary—they are not necessities of life.

The National Alcohol Tax Coalition contends that only about 30 percent of the adult population consumes most of the alcoholic beverages. It claims that 36 percent of all adults do not drink and that another one-third are light drinkers who consume little more than one drink a week. Moreover, the CBO study shows that, generally, the lower the family income, the lower the percentage of families consuming the taxed products. For example, 89.8 percent of the families earning \$50,000 or more a year drink liquor compared to 25.6 percent of the families earning less than \$5,000 a year.

The Coalition on Smoking OR Health³ states that the one-pack-a-day smoker spends about \$387 a year on cigarettes. If the federal excise tax were raised by 8 cents a pack (from 16 to 24 cents) the one-pack-a-day smoker would spend an additional \$29.20 a year, or about 56 cents more a week. Similarly, the CBO study estimates that a \$1-billion increase in federal tobacco excise tax revenues would cost those earning \$10,000 to \$19,999 a year an average of \$10 more a year.

Effects of Excise Tax Increases on Industries and Society

Another reason cited by industry representatives for not increasing excise taxes is the potential economic harm to certain industries as a result of reduced consumption caused by higher product prices. Opponents of excise tax increases contend that certain industries are still feeling the effects of recent federal and state excise tax increases and that further increases would exacerbate the situation. This economic argument has been voiced when increases to alcohol or tobacco taxes are proposed. Proponents of tax rate increases counter the economic argument with a social argument. That argument centers around the belief that the amount of excise tax revenues now collected from alcohol and tobacco is less than the costs imposed on society by the consumption of those products.

Impact on the Alcohol and Tobacco Industries

Representatives of the alcohol and tobacco industries have cited statistics to support their position that an increase in excise taxes would adversely affect their industries' economic well-being.

For example, according to the Distilled Spirits Council, before the latest tax increase per capita sales were going down by 2 percent a year, and they decreased by 7 percent after the increase in the distilled spirits tax

³The Coalition is comprised of the American Lung Association, the American Heart Association, and the American Cancer Society.

from \$10.50 to \$12.50 per proof gallon in 1985. The Council claims increasing excise tax rates would cause further damage to an industry already experiencing declining sales and employment, lower capacity utilization, and fewer bottlers and producers.

Although federal excise taxes on beer and wine have not risen since 1951, industry officials claim that the beer and wine industries are financially troubled and any increase in excise taxes would aggravate the situation. A spokesman for the beer industry testified before the Senate Committee on Finance in 1986 that in recent years (1) American beer sales had fallen or remained virtually the same; (2) per capita beer consumption had decreased; and (3) more than 30 American breweries had closed, resulting in more than 4,000 lost jobs. The Beer Institute contends that for every 10-percent increase in beer prices there is a corresponding 5-percent decrease in sales.

A wine industry spokesman testified before the House Ways and Means Committee in 1987 that prices of white generic table wine declined by 7.4 percent from December 1983 to April 1987, and that 8 of the 10 largest producers of nonpremium table wines experienced operating losses in 1984. He added that a 10 percent price increase would reduce the quantity of wine demanded by 5 to 6 percent, which would cause an estimated \$90 million loss in grape sales at the winery level and a \$560 million loss resulting from the industry's link to other sectors of the economy.

The tobacco industry contends that the 1983 federal excise tax increase on small cigarettes from 8 cents to 16 cents a pack resulted in lost sales of 29.6 million pounds of tobacco; lost jobs for 14,600 tobacco manufacture and distribution workers; and a reduction in the gross national product of \$800 million. According to the Tobacco Institute, doubling the tax again (from 16 to 32 cents a pack) would decrease sales by \$110 million, reduce purchases of tobacco leaves from farmers by over 37 million pounds; and result in 28,500 lost jobs, or about 4 percent of total industry employment.

Impact on Society

Although industry officials view decreases in consumption due to excise tax increases as harmful, others believe reduced consumption would produce certain benefits in addition to increased revenues. Supporters of excise tax increases justify their position as a means to offset the social costs generated by alcohol and tobacco consumption. Various studies show that alcohol and tobacco consumption results in direct and indirect

social costs that are far greater than the federal revenue now generated by taxing those products. Industry officials question the results of those studies and point out that other products not subject to excise taxes also carry social costs.

In a 1985 study, the National Alcohol Tax Coalition evaluated the effect of raising alcohol excise taxes under five options. The Coalition estimated that while decreases in consumption would range from 4.8 percent to 30.2 percent depending upon the rate increase, reductions in alcohol-related costs, such as health care and lost productivity, would range from \$5.8 billion to \$36.2 billion.

The Coalition on Smoking OR Health believes that raising cigarette excise tax rates and their resulting increase in prices would discourage people, primarily young people, from starting to smoke. A 1985 Harvard University report concludes that increasing the tax on small cigarettes from 16 to 24 cents a pack would discourage 500,000 teenagers from smoking in the first year, a 14-percent decline in the teenage smoking rate. Doubling the tax to 32 cents a pack would discourage nearly 1 million teenagers from smoking.

Imposition of an excise tax, or an increase in existing rates, may be justified if the product's consumption or production leads to external social costs, according to Treasury Department testimony in 1986 before the Senate Committee on Finance. In theory, a free market efficiently allocates economic resources to the extent that all of the economic costs associated with a good or service are reflected in the price charged by the producer. However, in some cases, the total social costs of a particular product exceed the private market costs. These external, uncompensated costs are borne by other members of society. Under these circumstances, according to Treasury Department testimony, an excise tax is justified because the tax raises the price of the product and thereby aids in more appropriately allocating the full societal costs.

According to Treasury, it is widely accepted that public health and other social costs resulting from the consumption of alcoholic beverages and tobacco products are not reflected in the price of these products. Although excise taxes are currently imposed on these products, many believe that current tax levels do not adequately cover the external costs imposed by consumption of these products.

According to testimony before the Senate Committee on Finance in 1987 by the National Alcohol Tax Coalition, the yearly toll of alcohol abuse

and alcoholism is 100,000 to 200,000 lives lost and about \$120 billion in economic harm. This estimate includes the costs associated with health care, reduced productivity, and social welfare programs.

In 1986, the staff director for the Coalition on Smoking OR Health testified before the Senate Committee on Finance that cigarette smoking costs society about \$65 billion a year in terms of smoking-related diseases and lost productivity. The \$65 billion is the middle estimate in a range of total smoking-related costs estimated by the staff of the Office of Technology Assessment in 1985. The \$65 billion equates to \$2.17 per pack of cigarettes and consists of \$43 billion for lost productivity costs and \$22 billion for health care costs, which includes \$3.4 billion for Medicare and \$0.7 billion for Medicaid.

Both the alcohol and the tobacco industries disagree with the concept of taxing to internalize social costs, because there is no precise way of measuring such costs. Alcohol industry officials state that any costs in question stem not from consumption but abuse. They point out that no mention is made of the social benefits of moderate drinking. According to the industry, moderate drinkers have a lower death rate than either heavy drinkers or abstainers, and abstainers run twice the risk of cardiac arrest than moderate drinkers. Thus, the alcohol industry contends that abstinence can create a social cost. Alcohol and tobacco industry officials also point out that many other products, such as coffee, candy, soft drinks, eggs, butter, and automobiles, carry social costs but are not subject to an excise tax.

Conclusions

Reducing the budget deficit will require Congress to decide on whether or not to increase taxes, which ones, and by how much. Any decision to increase taxes is controversial. Proponents and opponents of excise tax increases provide a plethora of facts, statistics, opinions, and studies to support their respective positions. The outcome of any debate over increasing excise taxes will depend upon the balance between Congress' consideration of such issues as regressivity and the impact on industries and society and its consideration of the budget deficit and the revenue potential from increasing excise tax rates.

Federal Excise Tax Rates and Revenues

Table I.1: General and Trust Fund Excise Taxes and Their Current Rates^a

Tax	Tax rate
Alcohol Excise Taxes	
Distilled spirits	\$12.50 per proof gallon
Wines	
Not more than 14 percent alcohol	17 cents per wine gallon
14 to 21 percent alcohol	67 cents per wine gallon
21 to 24 percent alcohol ^b	\$2.25 per wine gallon
Artificially carbonated wines	\$2.40 per wine gallon
Champagne and other sparkling wines	\$3.40 per wine gallon
Beer	
Large brewers	\$9 per barrel
Small brewers	\$7 per barrel
Alcohol occupational taxes:	
Producers:	
Distilled spirits and wines	\$1,000 a year per premise ^c
Brewers	\$1,000 a year per premise ^c
Wholesale dealers:	
Liquors, wines, or beer	\$500 a year
Retail dealers:	
Liquors, wines, or beer	\$250 a year
Nonbeverage use of distilled spirits	\$500 a year
Industrial use of distilled spirits	\$250 a year
Tobacco Excise Taxes	
Cigars:	
Small	75 cents per thousand
Large	8.5 percent of wholesale price (but not more than \$20 per thousand)
Cigarettes:	
Small	\$8 per thousand
Large	\$16.80 per thousand ^d
Cigarette paper	1/2 cent for each 50 papers ^e
Cigarette tubes	1 cent for each 50 tubes ^f
Snuff	24 cents per pound
Chewing tobacco	8 cents per pound
Pipe tobacco	45 cents per pound
Tobacco occupational tax:	
Manufacturers or exporters of taxable tobacco products	\$1,000 a year per premise ^c
Highway Trust Fund Excise Taxes	
Motor fuels: ^g	
Gasoline	9 cents/gallon
Diesel fuel	15 cents/gallon generally ^h
Special motor fuels (incl. alcohol fuels from petroleum)	9 cents/gallon
Methanol and ethanol fuels	
Fuels from other than petroleum or natural gas	3 cents/gallon
Fuels from natural gas	4.5 cents/gallon
Gasohol	3 cents/gallon
Dieselhol	9 cents/gallon

(continued)

**Appendix I
Federal Excise Tax Rates and Revenues**

Tax	Tax rate
Trucks (over 33,000 lbs.) and trailers (over 26,000 lbs.)	12 percent of retail price
Tires for highway vehicles:	
40 pounds or less	No tax
40-70 pounds	15 cents/pound over 40 pounds
70-90 pounds	\$4.50, plus 30 cents/pound over 70 pounds
Over 90 pounds	\$10.50, plus 50 cents/pound over 90 pounds
Use tax on heavy highway vehicles: ^l	
Under 55,000 pounds	No tax
55,000-75,000 pounds	\$100 plus \$22 per 1,000 pounds over 55,000 pounds
Over 75,000 pounds	\$550
Airport and Airway Trust Fund Excise Taxes	
Air passenger ticket tax	8 percent of amount paid
International departure tax	\$3 per person
Domestic air cargo tax	5 percent of amount paid
Fuels taxes for noncommercial (general) aviation ^o	
Gasoline	12 cents per gallon
Nongasoline	14 cents per gallon
Environmental Excise Taxes	
Excise taxes for Hazardous Substance Superfund	
Crude oil tax	
Domestic crude oil	8.2 cents per barrel
Imported petroleum products	11.7 cents per barrel
Tax on feedstock chemicals	Tax ranges from \$0.22 to \$10.13 per ton
Tax on certain imported substances	Generally taxed at the rates applicable to the feedstock chemicals that are components of the imported substance
Taxes for Leaking Underground Storage Tank Trust Fund ^l	
Gasoline (including aviation use)	0.1 cent per gallon
Other motor fuels (fuels used in motor vehicles, motorboats, trains, or aviation, but excluding liquid petroleum gas)	0.1 cent per gallon
Fuels used in inland waterways	0.1 cent per gallon
Communications (Telephone) Excise Tax	
Local and toll (long-distance) telephone and teletype-writer services	3 percent of amount paid
Gas Guzzler Excise Tax	
Fuel economy rating (in miles per gallon):	Tax per vehicle
At least 22.5	0
At least 21.5 but less than 22.5	\$500
At least 20.5 but less than 21.5	\$650
At least 19.5 but less than 20.5	\$850
At least 18.5 but less than 19.5	\$1,050
At least 17.5 but less than 18.5	\$1,300
At least 16.5 but less than 17.5	\$1,500
At least 15.5 but less than 16.5	\$1,850
At least 14.5 but less than 15.5	\$2,250
At least 13.5 but less than 14.5	\$2,700
At least 12.5 but less than 13.5	\$3,200
Less than 12.5	\$3,850
Harbor Maintenance Trust Fund Excise Tax	
Tax on use of harbors (ports)	0.04 percent of value of commercial cargo loaded or unloaded at U.S. ports ^k

(continued)

**Appendix I
Federal Excise Tax Rates and Revenues**

Tax	Tax rate
Inland Waterways Trust Fund Excise Tax	
Tax on diesel and other liquid fuels used by commercial cargo vessels on specified inland or intracoastal waterways ⁹	
Through 1989	10 cents per gallon
1990	11 cents per gallon
1991	13 cents per gallon
1992	15 cents per gallon
1993	17 cents per gallon
1994	19 cents per gallon
1995 and thereafter	20 cents per gallon
Aquatic Resources Trust Fund Excise Taxes	
Boating Safety Account taxes ^l	
Gasoline and special fuels used in motorboats ⁹	9 cents per gallon
Sport Fish Restoration Account taxes ^m	
Gasoline and special fuels used in motorboats	9 cents per gallon
Sport fishing equipment	10 percent of manufacturers price
Electric outboard motors and certain fish finders	3 percent (tax on fish finders limited to \$30 per item)
Bows and Arrows and Firearms Excise Taxes	
Bows and arrows ⁿ	11 percent of manufacturer's price
Regular firearms and ammunition ⁿ	
Pistols and revolvers	10 percent of manufacturer's price
Firearms other than pistols and revolvers	11 percent of manufacturer's price
Ammunition (shells and cartridges)	11 percent of manufacturer's price
National Firearms Act Weapons	
Occupational taxes	
Importers and Manufacturers	\$1,000 a year per premise ^o
Dealers	\$500 a year per premise
Transfer taxes	
NFA weapons in general	\$200 per transfer
Any other weapon ^o	\$5 per transfer
Making tax	\$200 per firearm
Black Lung Disability Trust Fund Excise Taxes	
Coal excise tax ^p	
Underground mines	\$1.10 per ton (but no more than 4.4 percent of the coal's selling price)
Surface mines	55 cents per ton (but no more than 4.4 percent of the coal's selling price)
Excise taxes on black lung benefit trusts	Varying rates on certain activities
Vaccine Injury Compensation Trust Fund Excise Tax	
Excise tax on certain vaccines ^q	
Diphtheria, Pertussis, and Tetanus ^r	\$4.56 per dose
Diphtheria or Tetanus ^s	0.06 per dose
Measles, Mumps, or Rubella ^t	4.44 per dose
Polio	0.29 per dose
Miscellaneous Excise Taxes	
Excise tax on private foundation net investment income:	
Domestic foundations	
General rule	2 percent of net investment income
Tax where charitable payout increases by equivalent amount	1 percent of net investment income
Foreign foundations	4 percent of gross investment income from sources within U.S.

**Appendix I
Federal Excise Tax Rates and Revenues**

Tax	Tax rate
Deep Seabed Revenue Sharing Trust Fund Excise tax on certain hard minerals (mineral nodules containing manganese, nickel, cobalt, or copper)	0.75 percent of fair market value of commercially recoverable minerals
Excise tax on foreign insurance policies	
Casualty insurance and indemnity bonds	4 cents per dollar of premium paid
Life insurance, sickness and accident policies, and annuity contracts	1 cent per dollar of premium paid
Reinsurance	1 cent per dollar of premium paid
Wagering excise taxes:	
Certain wagers	
Unauthorized states	2 percent of amount of wager
Authorized states	0.25 percent of amount of wager
Occupational tax	
Unauthorized states	\$500 per year on person engaged or employed in business of accepting wagers
Authorized states	\$50 per year on person engaged or employed in business of accepting wagers

^aExcludes penalty excise taxes.

^bWines containing more than 24 percent alcohol are taxed as distilled spirits.

^cTax is \$500 a year per premise for businesses with gross receipts of less than \$500,000 in the preceding taxable year.

^dLarge cigarettes measuring more than 6-1/2 inches in length are taxed at the rate prescribed for small cigarettes, counting each 2-3/4 inches (or fraction) as one cigarette.

^eCigarette papers measuring more than 6-1/2 inches in length are taxed at the rate prescribed, counting each 2-3/4 inches (or fraction) as one cigarette paper. Tax does not apply to a book or set of cigarette papers containing 25 or fewer papers.

^fCigarette tubes measuring more than 6-1/2 inches in length are taxed at the rate prescribed, counting each 2-3/4 inches (or fraction) as one cigarette tube.

^gThese fuels are also subject to additional taxes for the Leaking Underground Storage Tank Trust Fund.

^hA tax of 3 cents per gallon applies to certain privately operated, scheduled intercity buses.

ⁱThe additional tax imposed on methanol and ethanol fuels for the Leaking Underground Storage Tank Trust Fund is 0.05 cent per gallon.

^jThe annual use tax is reduced by 25 percent for certain vehicles used in transporting harvested forest products, or registered in Canada or Mexico. There is an exemption for vehicles used fewer than 5,000 miles on public highways (7,500 miles for farm vehicles), and for certain local transit buses.

^kExceptions are for cargo donated for overseas use and for cargo (other than cargo destined for a foreign country) shipped between U.S. mainland and Alaska (except for crude oil), Hawaii, and/or U.S. possessions, as well as cargo shipped between Alaska, Hawaii, and/or U.S. possessions.

^lTransfer to the Account limited to \$60 million per year for fiscal years 1989 and 1990 and \$70 million per year thereafter. Also, \$1 million per fiscal year of these motorboat fuel tax revenues goes to the Land and Water Conservation Fund.

^mThe balance of receipts in excess of the amounts indicated in endnote l.

ⁿRevenues from these taxes are appropriated, in the fiscal year following receipt, to the Federal Aid to Wildlife Program for support of state wildlife programs.

^oThe term "any other weapon" is statutorily defined and includes sporting rifles, fountain pen guns, belt buckle guns, and cane guns.

^pTax does not apply to lignite.

**Appendix I
Federal Excise Tax Rates and Revenues**

⁹Combinations of vaccines are taxed at the sum of the combined rates for each taxable vaccine.

⁷Includes any vaccine containing pertussis bacteria, extracted or partial cell bacteria, or specific pertussis antigens.

⁸A vaccine other than a Diphtheria, Pertussis, and Tetanus vaccine.

¹A vaccine against any one or combination of two or more of these.

Source: Joint Committee on Taxation.

Table I.2: Indexed Excise Tax Rates for Alcoholic Beverages

Excise tax	Current rate	Type of producer price index	Indexed tax rates from effective date of last rate change of 1989	Indexed tax rates from existing rate in 1965 to 1989
Distilled spirits	\$12.50	All commodities	\$13.43	\$36.04
		Distilled liquor	\$13.81	\$21.85
Wine: less 14%	\$0.17	All commodities	\$0.61	\$0.58
		Wines	\$0.56	\$0.49
Wine: 14% -21%	\$0.67	All commodities	\$2.45	\$2.30
		Wines	\$2.20	\$1.90
Wine: 21% - 24%	\$2.25	All commodities	\$8.21	\$7.72
		Wines	\$7.37	\$6.42
Wine: artificially carbonated	\$2.40	All commodities	\$8.76	\$8.24
		Wines	\$7.87	\$6.83
		Sparkling wines	\$8.19	\$7.11
Wine: Champagne, other sparkling	\$3.40	All commodities	\$12.40	\$11.67
		Wines	\$11.15	\$9.69
		Sparkling wines	\$11.59	\$10.07
Beer: large brewers	\$9.00	All commodities	\$32.81 ^a	\$30.88
		All commodities	\$15.38 ^b	•
		Malt beverages	\$25.28 ^a	\$21.09
		Malt beverages	\$14.58 ^b	•
Beer: small brewers	\$7.00	All commodities	\$25.52 ^a	\$24.03
		All commodities	\$11.96 ^b	•
		Malt beverages	\$19.66 ^a	\$16.40
		Malt beverages	\$11.33 ^b	•

^aIndexed from 1951 as described in appendix II.

Indexed from 1977 as described in appendix II.

**Appendix I
Federal Excise Tax Rates and Revenues**

Table I.3: Net Contribution to Federal Receipts From Excise Taxes on Alcoholic Beverages^a

Dollars in millions

Excise tax	Revenue estimates based on current rates		Type of producer price index	Revenue estimates based on rates indexed from effective dates of last changes		Revenue estimates based on rates indexed from existing rates in 1965	
	1989 revenue estimate	5-year estimate 1989-93		1989 revenue estimate	5-year estimate 1989-93	1989 revenue estimate	5-year estimate 1989-93
Distilled spirits	\$2,849.3	\$13,240.5	All commodities	\$2,937.8	\$14,930.3	\$6,090.0	\$30,318.0
			Distilled liquor	\$3,012.0	\$15,243.8	\$4,377.8	\$22,029.0
Wine	\$222.0	\$1,219.5	All commodities	\$791.3	\$4,717.5	\$748.5	\$4,470.8
			Wines	\$723.0	\$4,162.5	\$631.5	\$3,640.5
Beer	\$1,220.3	\$6,195.8	All commodities	\$4,201.5 ^b	\$23,644.5 ^b	\$3,968.3	\$22,335.0
			All commodities	\$2,032.5 ^c	\$11,448.0 ^c	.	.
			Malt beverages	\$3,304.5 ^b	\$17,530.5 ^b	\$2,778.0	\$14,730.0
			Malt beverages	\$1,943.3 ^c	\$10,306.5 ^c	.	.

^aEstimates take into account the change in income taxes attributable to a change in excise taxes. Therefore, these amounts differ from reported gross collections.

^bIndexed from 1951 as described in appendix II.

^cIndexed from 1977 as described in appendix II.

**Appendix I
Federal Excise Tax Rates and Revenues**

Table I.4: Indexed Excise Tax Rates for Tobacco and Related Products

Excise tax	Current rate	Type of producer price index	Rate indexed from effective date of last rate change to 1989	Rate indexed from existing rate in 1965 to 1989
Cigarettes: small	\$8.00	All commodities	\$8.76	\$13.73
		Cigarettes	\$13.28	\$27.52
Cigarettes: large	\$16.80	All commodities	\$18.39	\$28.82
		Cigarettes	\$27.89	\$57.80
Cigarette papers	\$0.005	All commodities	\$0.03 ^b	\$0.02
		All commodities	\$0.02 ^c	•
		Cigarettes	\$0.05 ^b	\$0.03
		Cigarettes	\$0.04 ^c	•
Cigarette tubes	\$0.01	All commodities	\$0.05 ^b	\$0.03
		All commodities	\$0.04 ^c	•
		Cigarettes	\$0.10 ^b	\$0.07
		Cigarettes	\$0.08 ^c	•
Cigars: small	\$0.75	All commodities	\$4.83	\$2.58
		Cigars	\$2.32	\$1.59
Cigars: large	\$20.00 ^a	All commodities	\$34.16 ^d	\$68.64
		All commodities	\$130.41 ^e	•
		Cigars	\$32.35 ^d	\$42.39
		Cigars	\$68.24 ^e	•
Snuff	\$0.24	All commodities	\$0.27	\$0.35
		Other tobacco	\$0.26	\$0.53
		Snuff	\$0.25	\$0.62
Chewing tobacco	\$0.08	All commodities	\$0.09	\$0.35
		Other tobacco	\$0.08	\$0.53

^aThe current rate for large cigars is 8.5 percent of the wholesale price but not to exceed \$20/1000.

^bIndexed from 1917 as described in appendix II.

^cIndexed from 1955 as described in appendix II.

^dIndexed from 1977 as described in appendix II.

^eIndexed from 1942 as described in appendix II.

**Appendix I
Federal Excise Tax Rates and Revenues**

Table I.5: Net Contribution to Federal Receipts From Excise Taxes on Tobacco and Related Products^a

Dollar in millions

Excise tax	Revenue estimates based on current rates		Type of producer price index	Revenue estimates based on rates indexed from effective dates of last changes		Revenue estimates based on rates indexed from existing rates in 1965	
	1989 revenue estimate	5-year estimate 1989-93		1989 revenue estimate	5-year estimate 1989-93	1989 revenue estimate	5-year estimate 1989-93
Cigarettes	\$3,302.3	\$16,038.0	All commodities	\$3,543.8	\$18,989.3	\$5,380.5	\$28,857.8
			Cigarettes	\$5,188.5	\$28,912.5	\$9,762.8	\$54,294.0
Cigarette papers and tubes	\$1.5	\$7.5	All commodities	\$8.3 ^c	\$44.3 ^c	\$5.3	\$28.5
			All commodities	\$6.0 ^d	\$31.5 ^d	.	.
			Cigarettes	\$15.0 ^c	\$82.5 ^c	\$9.8	\$60.0
			Cigarettes	\$12.0 ^d	\$69.0 ^d	.	.
Cigars	\$22.5 ^b	\$112.5	All commodities	\$62.3 ^e	\$342.0 ^e	\$61.5	\$336.0
			All commodities	\$77.3 ^f	\$421.5 ^f	.	.
			Cigars	\$41.3 ^e	\$211.5 ^e	\$40.5	\$207.0
			Cigars	\$46.5 ^f	\$237.8 ^f	.	.
Snuff and chewing tobacco	\$15.8	\$83.3	All commodities	\$18.0	\$103.5	\$22.5	\$132.8
			Other tobacco	\$17.3	\$92.3	\$33.8	\$180.8

^aEstimates take into account the change in income taxes attributable to a change in excise taxes. Therefore, these amounts may differ from reported gross collections.

^bThe current rate for large cigars is 8.5 percent of the wholesale price but not to exceed \$20/1,000. Revenue estimates are based on the 8.5 percent rate subject to the current and indexed maximum rates.

^cIndexed from 1917 as described in appendix II.

^dIndexed from 1955 as described in appendix II.

^eLarge cigars indexed from 1977 as described in appendix II.

^fLarge cigars indexed from 1942 as described in appendix II.

**Appendix I
Federal Excise Tax Rates and Revenues**

Table I.6: Indexed Excise Tax Rates for Gas Guzzler Cars

Excise tax	Current tax rates	Type of index	Tax rates indexed from effective dates of rate change to 1989
Fuel economy rating (in miles/gallon)			
At least 21.5 but less than 22.5	\$500/vehicle	All commodities PPI	\$553
		Domestic cars	\$545
		Import cars	\$595
At least 20.5 but less than 21.5	\$650/vehicle	All commodities PPI	\$719
		Domestic cars	\$708
		Import cars	\$773
At least 19.5 but less than 20.5	\$850/vehicle	All commodities PPI	\$940
		Domestic cars	\$926
		Import cars	\$1,011
At least 18.5 but less than 19.5	\$1,050/vehicle	All commodities PPI	\$1,162
		Domestic cars	\$1,144
		Import cars	\$1,249
At least 17.5 but less than 18.5	\$1,300/vehicle	All commodities PPI	\$1,438
		Domestic cars	\$1,417
		Import cars	\$1,547
At least 16.5 but less than 17.5	\$1,500/vehicle	All commodities PPI	\$1,659
		Domestic cars	\$1,635
		Import cars	\$1,785
At least 15.5 but less than 16.5	\$1,850/vehicle	All commodities PPI	\$2,047
		Domestic cars	\$2,016
		Import cars	\$2,201
At least 14.5 but less than 15.5	\$2,250/vehicle	All commodities PPI	\$2,489
		Domestic cars	\$2,452
		Import cars	\$2,677
At least 13.5 but less than 14.5	\$2,700/vehicle	All commodities PPI	\$2,987
		Domestic cars	\$2,943
		Import cars	\$3,213
At least 12.5 but less than 13.5	\$3,200/vehicle	All commodities PPI	\$3,540
		Domestic cars	\$3,488
		Import cars	\$3,808
Less than 12.5	\$3,850/vehicle	All commodities PPI	\$4,259
		Domestic cars	\$4,196
		Import cars	\$4,581

**Appendix I
Federal Excise Tax Rates and Revenues**

Table I.7: Net Contribution to Federal Receipts From Excise Taxes on Gas Guzzler Cars^a

Dollars in millions

Excise tax	Revenue estimates based on current rates		Type of index	Revenue estimates based on rates indexed from dates of last change	
	1989 revenue estimate	5-year estimate 1989-93		1989 revenue estimate	5-year estimate 1989-93
Gas guzzler cars	\$65.3	\$345.0	All commodities PPI	\$69.8	\$412.5
			Domestic cars PPI	\$69.0	\$402.0
			Import cars	\$71.3	\$432.8

^aEstimates take into account the change in income taxes attributable to a change in excise taxes. Therefore, these amounts may differ from reported gross collections.

Table I.8: Indexed Excise Tax Rates for NFA Weapons

Excise tax	Current rate	Type of producer price index	Rate indexed from effective date of last rate change to 1989	Rate indexed from existing rate in 1965
NFA transfer tax: In general	\$200	All commodities	\$1,719	\$686
		Small arms	\$2,209	\$755
NFA transfer tax: Any other weapon	\$5	All commodities	\$17	\$17
		Small arms	\$20	\$19
NFA making tax	\$200	All commodities	\$749	\$686
		Small arms	\$938	\$755

Table I.9: Net Contribution to Federal Receipts From Excise Taxes on NFA Weapons^a

Dollars in Millions

Excise tax	Revenue estimates based on current rates		Type of producer price index	Revenue estimates based on rates indexed from effective dates of last changes		Revenue estimates based on rates indexed from existing rates in 1965	
	1989 revenue estimate	5-year estimate 1989-93		1989 revenue estimate	5-year estimate 1989-93	1989 revenue estimate	5-year estimate 1989-93
NFA weapons	\$1.5	\$7.5	All commodities	\$5.3	\$27.8	\$2.3	\$12.8
			Small arms	\$6.8	\$37.5	\$2.3	\$13.5

^aEstimates take into account the change in income taxes attributable to a change in excise taxes. Therefore, these amounts may differ from reported gross amounts.

**Appendix I
Federal Excise Tax Rates and Revenues**

Table I.10: Indexed Excise Tax Rates for Wagering Occupations

Excise tax	Current rate	Type of index ^a	Indexed from effective date of last rate change to 1989	Rate indexed from existing rate in 1965 to 1989
Wagering occupations: unauthorized states	\$500	All commodities PPI	\$1,036	\$172
		Consumer price index	\$1,258	\$197
		All services	\$1,217	\$223
		Amusement services	\$1,079	.
Wagering Occupations: authorized states	\$50	All commodities PPI	\$55	\$172
		Consumer price index	\$62	\$197
		All services	\$62	\$223
		Amusement services	\$58	.

^aDetailed descriptions of these indexes are discussed in appendix II.

Table I.11: Net Contribution to Federal Receipts From Excise Taxes on Wagering Occupations^a

Dollars in Millions

Excise tax	Revenue estimates based on current rates		Type of index ^b	Revenue estimates based on rates indexed from effective dates of last changes		Revenue estimates based on rates indexed from existing rates in 1965	
	1989 revenue estimate	5-year estimate 1989-93		1989 revenue estimate	5-year estimate 1989-93	1989 revenue estimate	5-year estimate 1989-93
Wagering occupations	\$7.5	\$39.0	All commodities PPI	\$9.0	\$52.5	\$21.0	\$117.8
			Consumer price index	\$11.3	\$61.5	\$24.0	\$132.0
			All services	\$11.3	\$61.5	\$27.8	\$150.0
			Amusement services	\$10.5	\$55.5	.	.

^aEstimates take into account the change in income taxes attributable to a change in excise taxes. Therefore, these amounts differ from reported gross collections.

^bDetailed description of these indexes are discussed in appendix II.

Appendix I
Federal Excise Tax Rates and Revenues

Table I.12: Lowest and Highest Net Contribution to Federal Receipts From Selected Excise Taxes*

Excise tax	Revenue estimates based on current rates	Revenue estimates based on indexed rates from date of last change	
		(Lowest	- Highest)
1989			
Distilled spirits	\$2,849.3	\$2,937.8	\$3,012.0
Wine	\$222.0	\$723.0	\$791.3
Beer	\$1,220.3	\$1,943.3	\$4,201.5
Total alcohol	\$4,291.6	\$5,604.1	\$8,004.8
Cigarettes	\$3,302.3	\$3,543.8	\$5,188.5
Cigars	\$22.5	\$41.3	\$77.3
Snuff and chew	\$15.8	\$17.3	\$18.0
Tubes and papers	\$1.5	\$6.0	\$15.0
Total tobacco	\$3,342.1	\$3,608.4	\$5,298.8
Gas guzzler	\$65.3	\$69.0	\$71.3
Occ. wagering	\$7.5	\$9.0	\$11.3
NFA weapons	\$1.5	\$5.3	\$6.8
Total taxes	\$7,708.0	\$9,295.8	\$13,393.0
1989-1993			
Distilled spirits	\$13,240.5	\$14,930.3	\$15,243.8
Wine	\$1,219.5	\$4,162.5	\$4,717.5
Beer	\$6,195.8	\$10,306.5	\$23,644.5
Total alcohol	\$20,655.8	\$29,399.3	\$43,605.8
Cigarettes	\$16,038.0	\$18,989.3	\$28,912.5
Cigars	\$112.5	\$211.5	\$421.5
Snuff and chew	\$83.3	\$92.3	\$103.5
Tubes and papers	\$7.5	\$31.5	\$82.5
Total tobacco	\$16,241.3	\$19,324.6	\$29,520.0
Gas guzzler	\$345.0	\$402.0	\$432.8
Occ. wagering	\$39.0	\$52.5	\$61.5
NFA weapons	\$7.5	\$27.8	\$37.5
Total taxes	\$37,288.6	\$49,206.2	\$73,657.6

**Appendix I
Federal Excise Tax Rates and Revenues**

Dollars in millions

Revenue estimates based on indexed rates from 1965 rates ^b		Difference between revenue estimates based on indexed rates from date of last change and current rates		Difference between revenue estimates based on indexed rates from 1965 rates and current rates ^b	
(Lowest	- Highest)	(Lowest	- Highest)	(Lowest	- Highest)
\$4,377.8	\$6,090.0	\$88.5	\$162.7	\$1,528.5	\$3,240.7
\$631.5	\$748.5	\$501.0	\$569.3	\$409.5	\$526.5
\$2,778.0	\$3,968.3	\$723.0	\$2,981.2	\$1,557.7	\$2,748.0
\$7,787.3	\$10,806.8	\$1,312.5	\$3,713.2	\$3,495.7	\$6,515.2
\$5,380.5	\$9,762.8	\$241.5	\$1,886.2	\$2,078.2	\$6,460.5
\$40.5	\$61.5	\$18.8	\$54.8	\$18.0	\$39.0
\$22.5	\$33.8	\$1.5	\$2.2	\$6.7	\$18.0
\$5.3	\$9.8	\$4.5	\$13.5	\$3.8	\$8.3
\$5,448.8	\$9,867.9	\$266.3	\$1,956.7	\$2,106.7	\$6,525.8
\$69.0	\$71.3	\$3.7	\$6.0	\$3.7	\$6.0
\$21.0	\$27.8	\$1.5	\$3.8	\$13.5	\$20.3
\$2.3	\$2.3	\$3.8	\$5.3	\$0.8	\$0.8
\$13,328.4	\$20,776.1	\$1,587.8	\$5,685.0	\$5,620.4	\$13,068.1
\$22,029.0	\$30,318.0	\$1,689.8	\$2,003.3	\$8,788.5	\$17,077.5
\$3,640.5	\$4,470.8	\$2,943.0	\$3,498.0	\$2,421.0	\$3,251.3
\$14,730.0	\$22,335.0	\$4,110.7	\$17,448.7	\$8,534.2	\$16,139.2
\$40,399.5	\$57,123.8	\$8,743.5	\$22,950.0	\$19,743.7	\$36,468.0
\$28,857.8	\$54,294.0	\$2,951.3	\$12,874.5	\$12,819.8	\$38,256.0
\$207.0	\$336.0	\$99.0	\$309.0	\$94.5	\$223.5
\$132.8	\$180.8	\$9.0	\$20.2	\$49.5	\$97.5
\$28.5	\$60.0	\$24.0	\$75.0	\$21.0	\$52.5
\$29,226.1	\$54,870.8	\$3,083.3	\$13,278.7	\$12,984.8	\$38,629.5
\$402.0	\$432.8	\$57.0	\$87.8	\$57.0	\$87.8
\$117.8	\$150.0	\$13.5	\$22.5	\$78.8	\$111.0
\$12.8	\$13.5	\$20.3	\$30.0	\$5.3	\$6.0
\$70,158.2	\$112,590.9	\$11,917.6	\$36,369.0	\$32,869.6	\$75,302.3

^aFigures are the lowest and highest dollar values estimated for the tax from tables 1.3, 1.5, 1.7, 1.9, and 1.11 regardless of the type of index used or the date of last change. Estimates take into account the change in income taxes attributable to a change in excise taxes. Therefore, these amounts differ from reported gross collections.

^bGas guzzler estimates are based upon rates indexed from the date of last change because the tax did not exist in 1965.

**Appendix I
Federal Excise Tax Rates and Revenues**

Table I.13: Ad Valorem Rates Equivalent to Per Unit Excise Tax Rates of Alcoholic Beverages for 1989

Excise tax	Ad valorem rate equivalent to current per unit rates	Type of producer price index	Ad valorem rates equivalent to per unit rates indexed from	
			Effective dates of last rate changes	Existing rates in 1965
Distilled spirits	14.2%	All commodities	15.3%	41.0%
		Distilled liquor	15.7%	24.9%
Wine: less than 14%	0.5%	All commodities	1.7%	1.6%
		Wines	1.6%	1.3%
Wine: 14% - 21% alcohol	1.9%	All commodities	7.1%	6.7%
		Wines	6.4%	5.5%
Wine: 21% - 24% alcohol	2.1%	All commodities	7.8%	7.3%
		Wines	7.0%	6.1%
Wine: artificially carbonated	2.3%	All commodities	8.2%	7.7%
		Wines	7.4%	6.4%
		Sparkling wines	7.7%	6.7%
Wine: Champagne, other sparkling	2.6%	All commodities	9.3%	8.8%
		Wines	8.4%	7.3%
		Sparkling wines	8.7%	7.6%
Beer: large brewers	3.3%	All commodities	11.9% ^a	11.2%
		All commodities	5.6% ^b	•
		Malt beverages	9.2% ^a	7.7%
		Malt beverages	5.3% ^b	•
Beer: small brewers	2.3%	All commodities	8.4% ^a	8.0%
		All commodities	4.0% ^b	•
		Malt beverages	6.5% ^a	5.5%
		Malt beverages	3.8% ^b	•

^aIndexed from 1951 as described in appendix II.

^{bb}Indexed from 1977 as described in appendix II.

**Appendix I
Federal Excise Tax Rates and Revenues**

Table I.14: Ad Valorem Rates Equivalent to Per Unit Excise Tax Rates of Tobacco and Related Products for 1989

Excise tax	Ad valorem rate equivalent to current per unit rates	Type of producer price index	Ad valorem rates equivalent to per unit rates indexed from	
			Effective dates of last rate changes	Existing rates in 1965
Cigarettes: small	11.4%	All commodities	12.5%	19.5%
		Cigarettes	18.9%	39.2%
Cigarettes: large	19.5%	All commodities	21.3%	33.4%
		Cigarettes	32.3%	66.9%
Cigarette papers	0.2%	All commodities	1.2% ^b	0.8%
		All commodities	0.8% ^c	•
		Cigarettes	2.0% ^b	1.2%
		Cigarettes	1.6% ^c	•
Cigarette tubes	0.4%	All commodities	1.9% ^b	1.1%
		All commodities	1.5% ^c	•
		Cigarettes	3.8% ^b	2.7%
		Cigarettes	3.0% ^c	•
Cigars: small	1.5%	All commodities	9.6%	5.2%
		Cigars	4.6%	3.2%
Cigars: large	7.3% ^a	All commodities	18.8% ^d	18.6%
		All commodities	23.3% ^e	•
		Cigars	12.5% ^d	12.4%
		Cigars	14.0% ^e	•
Snuff	2.6%	All commodities	2.9%	3.8%
		Other tobacco	2.8%	5.7%
		Snuff	2.7%	6.6%
Chewing tobacco	3.4%	All commodities	3.8%	14.8%
		Other tobacco	3.4%	22.4%

^aAssumes no maximum rate.

^bIndexed from 1917 as described in appendix II.

^cIndexed from 1955 as described in appendix II.

^dIndexed from 1977 as described in appendix II.

^eIndexed from 1942 as described in appendix II.

**Appendix I
Federal Excise Tax Rates and Revenues**

Table I.15: Ad Valorem Rates Equivalent to Per Unit Excise Tax Rates of Gas Guzzler Cars for 1989

Excise tax	Ad valorem rate equivalent to current per unit rates	Type of producer price index	Ad valorem rates equivalent to per unit rates indexed from Effective date of last rate changes
Gas guzzler	1.4%	All commodities	1.6%
		Domestic cars	1.6%
		Import cars	1.7%

Methodological Considerations Associated With Indexing Per Unit Excise Taxes and Methods Used by GAO

If Congress decides to index per unit excise taxes, it will have several measures of price changes and overall inflation from which to choose. Although the CPI is the most frequently used measure of overall inflation, it may not be the most appropriate index with which to adjust excise tax rates. Our review of price indexes led us to choose the PPI over the CPI in most cases.

Choosing an Index

A problem with using the CPI, and particularly any of its product specific components, is that excise taxes are included in calculating the consumer price indexes.¹ If CPI indexes are used, tax increases will be indexed as well as price increases, and an inflationary spiral will be thus built into the indexing process itself. The problem of a built-in inflationary spiral is much greater if a product specific component of the CPI is used than if the all items CPI is chosen. While a change in excise taxes in any one product may have a potentially significant effect on that item's specific measure of price change, it is likely to have a much smaller effect on the overall index.

An alternative family of indicators exists that eliminates this problem. The PPI and its commodity specific components do not include excise taxes in their measurement of price changes. The PPI measures changes in net revenues received by producers. It does not include changes in revenues received by the government and thus does not reflect changes in excise taxes. The CPI, on the other hand, measures the average change in prices paid by consumers for a fixed market basket of goods and services and thus includes any factors, like excise taxes, that affect the retail price of consumer goods and services.

The CPI and PPI are highly correlated historically, and for many purposes, either index can be used as a measure of overall inflation. However, for indexing excise taxes, the PPI would not build an inflationary spiral into the process as would be the case if the CPI were used. Moreover, the legal liability of most of the per unit taxes included in our study rests on the producer/manufacturer or importer of the taxed good. Therefore, the producer price index (PPI), which more accurately reflects price increases at this level of activity than the CPI, may be a better index to use.

¹This is because excise taxes are generally passed on to the consumer in the form of higher retail prices, and retail prices are used by BLS in calculating the CPI and its components.

**Appendix II
Methodological Considerations Associated
With Indexing Per Unit Excise Taxes and
Methods Used by GAO**

The Canadian experience with indexation illustrates the importance of selecting the appropriate index. In 1981, the Canadian government indexed excise taxes on distilled spirits, wine, and beer, as well as cigarettes and other tobacco products, on an annual basis, to the Canadian consumer price index subgroups for alcohol and tobacco. Canada repealed its indexing scheme when it found that using subgroup indexes caused cross-industry price effects. This means that a price increase in distilled spirits would be reflected in the subgroup index for alcohol, which included beer, wine, and distilled spirits. Thus, tying rate changes for these taxes to the alcohol index would mean that the tax rates on all three commodities would increase, even if the price of beer and wine remained the same. Moreover, since excise taxes are also included in the Canadian CPI and its subgroups, an inflationary spiral was also built into this process.

These results do not occur when the index used is commodity specific or when the index does not include excise taxes. Alternatively, some of these effects could be mitigated by indexing to the overall CPI, because changes in the price of any one commodity (for any reason) would have a much smaller impact on the overall CPI than on a subgroup index. Australia currently indexes some of its per unit excise taxes and has avoided the problem of cross-industry price effects by using an overall consumer price index.

Another method of indexing excise taxes is illustrated by the state of Hawaii in its indexation of alcoholic beverage excise taxes. Hawaii, which formerly imposed ad valorem taxes on its alcoholic beverages, now uses per unit rates that are adjusted semiannually. For a given liquor category, Hawaii adjusts the per unit rates upwards or downwards by the same percentage as the increase or decrease in average unit prices, assuming that sales volume does not decline. No tax rate change occurs if sales volume decreases and tax rates are not allowed to fall below a statutorily defined floor. Indexing changes to total sales necessitated a revision on the state excise tax forms to require taxpayers to report not only the quantity of alcoholic beverages sold, but also the sales prices. This type of taxation scheme at the federal level would undoubtedly require additional administrative resources to analyze the quantity and price data reported by liable taxpayers. The approximately 1,850 alcoholic beverage excise taxpayers at the federal level is far greater than the 30 or so taxpayers in Hawaii.

Methods We Used to Index Excise Taxes

We generally used the all commodities PPI and commodity specific PPIs to adjust the excise tax rates in our review to changes in overall inflation and the taxed commodities' prices. We chose the PPI and its commodity specific components because, unlike the CPI, the PPI does not include excise taxes in its calculation of price changes. We chose the commodity grouping version of the PPI because it has the longest historical series of data among the family of PPI indexes.

Among the PPI family of index groupings, we selected the all commodities PPI and the detailed commodity PPIs instead of the PPI industry output price indexes, industry-based stage-of-processing price indexes, or input price indexes. We did so because detailed commodity indexes are useful for analyzing the price movements of individual commodities. Moreover, these indexes have the longest historical series of the four indexes available.

In some instances, the commodity specific PPI series did not extend back to the effective date of the taxed item's last rate change. When this occurred, we rebased a related PPI that had a longer historical series or the all commodities PPI in order to have an index value for the year in which the last rate change took place. We rebased the older series to overlap with the first year or month the newer commodity specific series was available. We did this so that as new data become available, the newer series can be used without modification.

Current rates of the excise taxes in our review were indexed from the effective date of their last rate changes to 1989. The 1965 rates of these taxes were also indexed from 1965 to 1989.

In order to obtain the indexed tax rates, we divided the annual average PPI for 1987 by the annual average PPI for the year of the effective date of the last rate change. We then multiplied the results of this "indexing factor" by the applicable tax rate in the year of the last rate change.² We repeated this same process to index tax rates from 1965 to 1987. We provided these rates to the JCT, which further adjusted the rates to their 1989 values using projected indexes.

For comparison purposes, we generally indexed each tax to the item's most closely related commodity specific producer price index as well as to the all commodities producer price index. One exception, however,

²Indexing factors for commodity specific PPIs, the CPI, and wage rates were calculated in the same manner.

**Appendix II
Methodological Considerations Associated
With Indexing Per Unit Excise Taxes and
Methods Used by GAO**

was the wagering occupational excise tax rates. In addition to the PPI-all commodities index, we indexed these rates to the Consumer Price Index for all urban consumers (CPI-U), as well as to average hourly earnings in the service industry and the amusement and recreation services industry (Standard Industrial Classification code 79). Our rationale for this is explained in the section on the indexation of the occupational wagering tax rates.

Tables I.2 through I.11 show for each tax the type of index used to derive the indexed rates and the revenue estimates. Unless otherwise noted, all indexes are from the PPI family. Revenue estimates were calculated by the JCT using the indexed rates.

The following sections describe modifications to the general indexing procedures outlined above.

Indexation of Excise Tax Rates on Alcoholic Beverages

Wines

We rebased the historical PPI series for wine and used it along with the wines, brandy and brandy spirits PPI to index still wines with up to 24 percent alcohol. The older PPI series for wine began in 1947 and extended through the end of 1983, with its base year³ in 1982. The current PPI series for wines, brandy and brandy spirits begins with its base year in December 1983. We rebased the wine series so that its base year was set to December 1983, the same as the wines, brandy and brandy spirits PPI base year.

Since wine rates were last changed in 1951, we indexed the rates for still wines from 1951 to 1987 using the rebased wine index value for 1951 and the wines, brandy and brandy spirits index value for 1987. Likewise, we indexed the rates from 1965 to 1987 using the rebased wine PPI for 1965 and the wines, brandy and brandy spirits PPI for 1987.

To index rates for artificially carbonated and sparkling wines, we used the rebased wine PPI that we constructed and the PPI for sparkling wines.

³The base year of an index is the year in which the index value equals 100.

The sparkling wines PPI series includes the price changes of both artificially carbonated and sparkling wines and begins with its base year in December 1983. Thus, we used the rebased wine PPI for 1951 and the sparkling wines index value for 1987 to adjust the tax rates.

Beer

In 1977, Congress imposed a separate rate of \$7 per barrel for small brewers and continued the 1951 rate of \$9 per barrel for all other brewers. Because the \$2 subsidy to small brewers became effective in 1977 and the \$9 rate became effective in 1951, we considered the last rate change to have two possible dates. Thus, we indexed the \$9 rate on large brewers using both 1951 and 1977 as effective dates from which to index. Likewise, we indexed the \$7 per barrel rate for small brewers from 1977 to 1987 and from 1951 (as if it existed at that date) to 1987. We indexed the \$7 rate from 1951 to illustrate what that rate would be if Congress had developed a similar subsidy for small brewers in 1951 and indexed it to inflation.

Indexation of Excise Tax Rates on Tobacco Products

Cigars

We considered the last rate change for large cigars to have two effective dates, 1977 and 1942. In 1977, the excise tax on cigars was changed from a per unit bracket structure of varying rates to a single ad valorem rate of 8.5 percent, with a maximum rate of \$20 per 1,000 cigars. This \$20 ceiling existed under the prior per unit structure since 1942. Thus, we considered the ceiling of this ad valorem tax to have two effective dates for rate changes. Therefore, we indexed the \$20 ceiling from 1942 to 1987 and from 1977 to 1987. The JCT adjusted these ceilings to their 1989 values and calculated the revenue estimates for this tax using the 8.5 percent rate and the two indexed ceiling values.

Snuff and Chewing Tobacco

We used the rates that became effective in 1951 to index the rates from 1965 to 1987, even though these rates were repealed from 1965 to 1986. We indexed the rates that existed at the time of their repeal to determine what the current rates would be if they had never been repealed.

Cigarette Papers and Tubes

We used the cigarettes PPI to index the excise tax rates on cigarette papers and tubes because cigarettes are made with papers and tubes.⁴

Because the cigarettes PPI extends only back to 1926, we used a rebased all commodities PPI to obtain a 1917 index value and the cigarettes PPI value for 1987 to index rates for cigarette papers and tubes from 1917 to 1987. We rebased the all commodities PPI series by setting its 1926 index value equal to the 1926 value of the cigarettes PPI.

We indexed the rates for cigarette papers and tubes using both 1917 and 1955 as the dates of their last rate changes. We used both of these years because Congress made the rates of 1/2 cent for 50 papers and 1 cent for 50 tubes effective in 1917 and changed them in 1955. While cigarette papers or tubes measuring more than 6-1/2 inches in length remain taxable at the 1917 rates, the amendment provided that each 2-3/4 inches, or fractions thereof, are to be counted as one cigarette paper or tube, thus tripling the rates on certain papers and tubes.

Indexation of Excise Tax Rates of the Gas Guzzler Excise Tax

The BLS passenger cars import price index was available to us only in quarterly data. In order to obtain annual figures for indexation, we averaged the quarterly data for each year.

We indexed the excise tax rates on each type of fuel-inefficient car from 1986 to 1987 because the last rate change was effective for 1986 model year vehicles.⁵ We assumed that calendar years correspond to the model years for purposes of indexation.

Indexation of National Firearms Act Weapons Excise Tax Rates

We used a rebased all commodities PPI and the small arms PPI to index the general NFA weapons transfer excise tax. The small arms PPI series began in 1947 and therefore does not extend back to 1934, when the NFA transfer tax became effective. Thus, we indexed the transfer excise tax rate for general weapons from 1934 to 1987, using a rebased all commodities PPI for 1934 and the small arms PPI value for 1987.⁶ We rebased

⁴We considered the pulp, paper and allied products PPI and the thin paper PPI as possible indexes. We decided not to use these indexes because they both include too many unrelated paper products to accurately reflect price changes in cigarette papers and tubes.

⁵We did not index from 1965 because the gas guzzler excise tax was enacted in 1978 and became effective for 1980 and later model year vehicles.

⁶Rates for the any other weapons transfer tax and the making tax were simply indexed to the small arms PPI because these rates became effective after the series began.

the all commodities PPI so that its adjusted index number in 1947 equals the 1947 index number of the small arms PPI.

Indexation of the Occupational Wagering Excise Tax Rates

We used the all items Consumer Price Index for all urban consumers (CPI-U) and average hourly earnings for the services industry and for the amusement and recreation services industry⁷ to index the wagering occupational excise tax rates. Data for the services industry extend from 1964 to 1987, and from 1972 to 1987 for the amusement and recreation services industry. Therefore, we used only the services' industry wage series to index the rates since 1965.

Because the wagering occupational excise tax is imposed on the individual accepting a wager for his employment activity, and not on or for a specific commodity, we could not use a commodity specific producer price index to adjust the tax rates. We chose, instead, to index the rates of this taxed activity to the average hourly earnings of the employees working in this industry. The change in employee earnings for this activity is one measure by which the taxes on persons accepting wagers could be adjusted.

We chose to index the rates to the data listed for standard industrial classification (SIC) code 79, amusement and recreation services, because it includes gambling and casinos. We used average hourly earnings for services and SIC code 79, and not weekly earnings, because the number of hours worked per week varies.

We also indexed the tax rates to the CPI-U, which measures the change in prices for goods and services consumed.⁸ We chose the CPI-U because it is frequently used to adjust wage payments for changes in prices; thus, wages generally track the CPI. Moreover, the CPI-U does not include wages in its calculation. Therefore, indexing wagering occupational excise tax rates to the CPI-U will not lead to generating an inflationary spiral in the indexing process.

⁷Data are from the Bureau of Labor Statistics.

⁸We decided to use the CPI-U instead of the Consumer Price Index for urban wage earners and clerical workers (CPI-W) because the CPI-U represents the spending habits of a larger percentage of the population than the CPI-W.

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