[Y3.AD 9/8: 2F31/20]

A COMMISSION REPORT

STRENGTHENING THE FEDERAL REVENUE SYSTEM:

IMPLICATIONS FOR STATE AND LOCAL TAXING AND BORROWING

ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS
WASHINGTON, D.C. • OCTOBER 1984

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Preface

The fact that the national government is now running the largest dollar deficit in American history is a source of profound concern for those who fear that this unprecedented deficit may distort the economy or unbalance our system of fiscal federalism. Some see the current deficit as having been caused by deficiencies—structural problems—in the federal budget process that encourage the pleasure of spending without the pain of taxing. They argue for Constitutional remedies such as a balanced budget amendment and an item veto. Others, with a more fiscal orientation, favor deficit reduction through cuts in spending, increases in tax collections or a combination of these two approaches.

The Commission believes that more fiscal discipline should be imposed on the federal budget process and that any tax increases should be used to reduce the deficit.

Motivated by the possibility of increased federal taxes for deficit reduction, in March 1983 the Advisory Commission on Intergovernmental Relations asked its staff to examine the intergovernmental implications of such an increase. While the Commission recognizes that other paths can be used to trim the budget deficit, it was concerned that unconsidered federal tax increases might threaten subnational governments, making it more difficult for states and localities to tax and to borrow—perhaps even tending to restrict the fiscal diversity that is a foundation of our federal system.

If Washington chooses to increase tax revenues, four questions highlight the potential clash between federal interests and those of states and localities:

- Should Congress restrict the deductibility of all state-local taxes for individuals who itemize deductions? However, this feature is a longstanding foundation of fiscal federalism. If, for example, only property and income taxes remained deductible, states might be discouraged from relying heavily on sales taxation.
- Is a federal move into the areas of sales taxation imminent? Such a move could, conceivably, restrict state-local "headroom" with regard to increases in sales tax rates.
- Does the rekindled federal interest in raising rates of alcoholic beverage, cigarette and motor fuel taxation threaten state-local use of these tax bases?
- Of all the major proposals to strengthen the federal revenue system (e.g., through a national sales tax), which would be most detrimental to subnational fiscal interests? Which would best promote the national goals of providing greater fairness in taxation and the fostering of economic growth?

The examination of these alternatives does not imply support for these or any other revenue raising measures. In fact the Commission is now studying the other side of this question: How to bring greater fiscal discipline into the federal system.

This report was adopted by the Commission at its March 1984 meeting.

Robert B. Hawkins, Jr.
Chairman

Acknowledgments

This report was prepared by ACIR's taxation and finance staff and adopted by the Commission at its March 1984 meeting. The work would not have been possible without the impetus and constant leadership provided by John Shannon. *Chapter 1* was written by John Shannon, Robert J. Kleine and Mark David Menchik, with the assistance of the authors of the following chapters: *Chapter 2*, Mark David Menchik and Karen Benker; *Chapter 3*, Daphne A. Kenyon with some of the tables by Albert J. Davis; *Chapter 4*, Robert J. Kleine; *Chapter 5*, Emmeline Rocha; and *Chapter 6*, Susannah E. Calkins. Albert J. Davis, formerly of the ACIR staff, helped establish the research plan and initiated the research work. Ruthamae A. Phillips and Arlene Preston provided secretarial assistance, as did Cassandra Baldwin.

The Commission and the staff benefited from the help of many individuals and organizations. Special gratitude, however, is expressed for the assistance provided by Henry Aaron, Robert Aten, Gregg Eisenwein, Harvey Galper, Larry Hunter, Robert Kamins, Thomas Neubig, Nonna Noto, William Sutton and Dennis Zimmerman. These individuals, along with those who participated in the sessions of "critics" and "thinkers," assured a frank exchange of views on this important intergovernmental issue. The Commission staff, of course, takes full responsibility for the contents and accuracy of the report.

S. Kenneth Howard
Executive Director

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Chapter 1

Introduction and Policy Recommendations

At a time when the federal revenue system is under fire, poorly considered attempts to improve it may threaten fiscal federalism, potentially weakening the ability of state and local governments to tax and to borrow. Taking an intergovernmental perspective, this study examines several widely discussed means of increasing federal taxes that have been proposed to reduce the federal budget deficit and to make taxation fairer. In considering alternative proposals we recognize, however, that raising taxes need not be an essential component of deficit reduction: Spending may simply be cut. (And, revenue increases also may be coupled with spending cuts.)

By the same token, the tax system may certainly be made fairer without deepening its bite. The examination in this report focuses, however, on various means intended both to increase federal revenue and to achieve greater fairness, putting this examination in the context of fiscal federalism.

In the American federal system, each government seeks much the same fiscal goals— notably, revenue adequacy, tax fairness, economic growth and fiscal flexibility. Despite this, problems arise when multiple governments seeking the same goals do so from different starting points and vantages and when multiple governments differ in their priorities and responsibilities. For example, many federal policymakers view the tax exemption of inter-

est on bonds issued by state and local governments as a $20 billion-a-year loophole that mainly benefits rich bondholders.
Nevertheless, state and local officials view that "loophole" as one of the essential features of fiscal federalism—respecting the principle of reciprocal sovereignty among different governments and benefiting all citizens by reducing the cost of state-local borrowing.

THE FEDERAL FISCAL SITUATION; TWO SERIOUS PROBLEMS

The federal government is afflicted with two ailments—growing budget deficits and a revenue structure many view as seriously flawed.

Growing Budget Deficits

The federal budget deficit for fiscal year 1983 totaled $195 billion. The enormity of that gap between revenues and expenditures is underscored by a stunning intergovernmental comparison: The deficit was about $25 billion *larger* than the total of that year's tax collections for all state governments combined. In fact, not since World War II has there been a year when the federal budget deficit was greater than total state tax collections. *Graph 1–1* portrays the steady growth in budget deficits during the last two decades.

When it comes to deficits, quantitative changes can have qualitative effects. For years, growing federal budget deficits have attracted remarkably little public attention; now they have reached such massive proportions that they can no longer be ignored. In fact, the size of the federal budget deficit has become the nation's number one economic worry—if not for the immediate present, then for its threat to our future. The menacing character of this budget deficit is clearly acknowledged in President Reagan's January 1984, budget message.

> All signs point to continued economic growth, vigorous investment and rising productivity without renewed inflation—all but one. Only the threat of indefinitely prolonged high budget deficits threatens the continuation of sustained noninflationary growth and prosperity. It raises the specter of sharply higher interest rates, choked-off investment, renewed recession and rising unemployment.

Although there is now widespread agreement that the federal government has a serious fiscal ailment, there is far less agreement on its cause and cure. The physicians located at the right end of the policy spectrum blame the ailment on the runaway costs of domestic social programs and prescribe sharp cutbacks there. The physicians at the other end of the spectrum point to rapidly rising defense spending and to recent tax cuts as two primary causes. Their prescription: slow down the defense build-up and raise taxes. Those who occupy the central portions of the policy spectrum draw from both sides—slow down the defense build-up, cut domestic spending and raise taxes.

Inequity of the Federal Income Tax

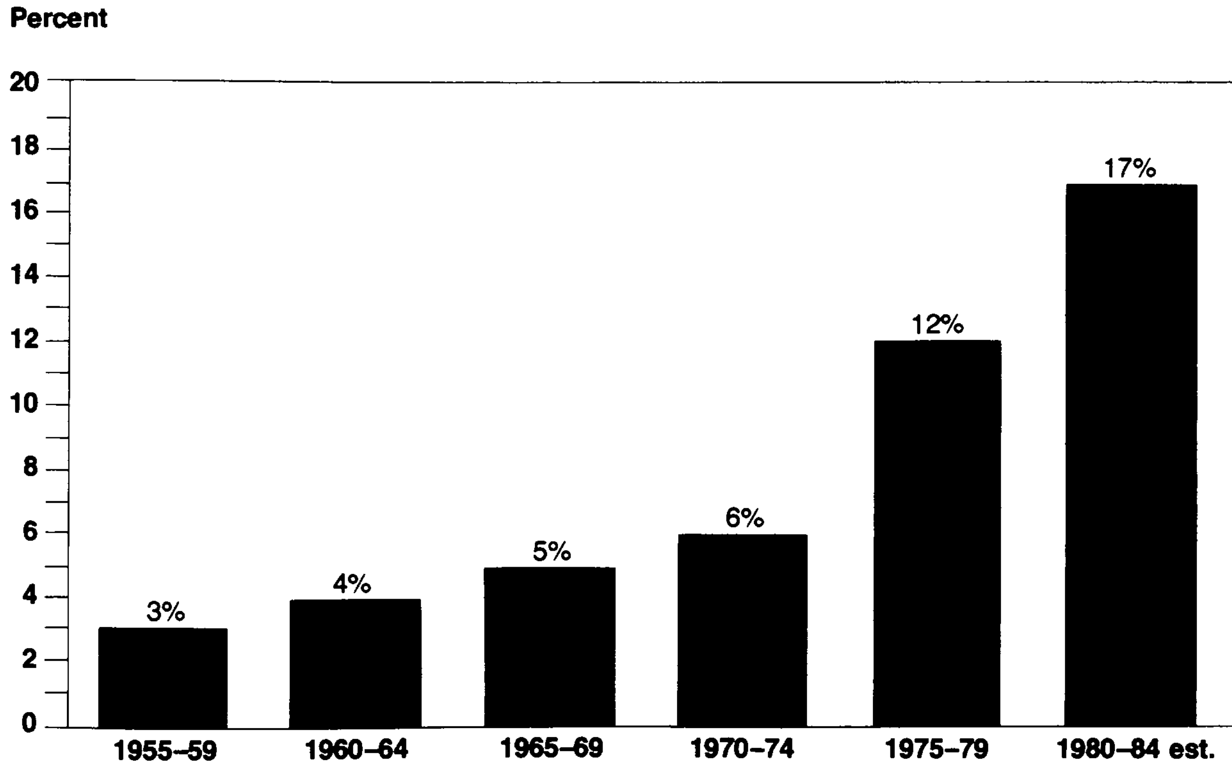
Nothing comes easily for national policymakers these days. Even if they can agree to raise taxes—itself a controversial decision—policymakers are not likely to agree quickly on just what form that tax increase should take.

A major barrier to quick agreement on how to raise taxes is public perception that the federal individual income tax is unfair. Many analysts argue vehemently that federal tax reform—especially of the personal income tax—must precede revenue increases. The perception of "unfairness" is documented by responses to ACIR's continuing public opinion polls. Every year since 1979 respondents have pointed to the federal income tax more often than any other major tax when they were asked: "Which do you think is the worst tax—that is, the least fair?"

Other survey results show that the federal income tax is unpopular because taxpayers perceive it as having too many loopholes that are unfairly used by the rich to reduce their tax liability. Although these abuses may not actually be widespread (no one knows with certainty), that perception not only exists but is strengthened by the complexity of the federal income tax. (So complex are the forms that each year taxpayers fork over $9–10 billion to prepare their returns.)

Graph 1-1

FEDERAL BUDGET DEFICIT AS A PERCENT OF TOTAL FEDERAL EXPENDITURES



SOURCE: U.S. Office of Management and Budget, *The Federal Budget for 1984*, Table 24, and ACIR staff computations.

Table 1-1

RESPONDENTS' ANSWERS TO "WHICH DO YOU THINK IS THE WORST TAX—THAT IS, THE LEAST FAIR?

	May 1983	May 1982	Sept. 1981	May 1980	May 1979	May 1978	May 1977	May 1975	April 1974	May 1973	March 1972
Federal Income Tax	35%	36%	36%	36%	37%	30%	28%	28%	30%	30%	19%
Local Property Tax	26	30	33	25	27	32	33	29	28	31	45
State Sales Tax	13	14	14	19	15	18	17	23	20	20	13
State Income Tax	11	11	9	10	8	11	11	11	10	10	13
Don't Know	15	9	9	10	13	10	11	10	14	11	11

SOURCE: ACIR, *1983 Changing Public Attitudes on Governments and Taxes*, S-12, p. 1. (There was no 1976 survey.)
Note: Figures may not add to 100% because of rounding.

Figure 1–1

FIVE REASONS THE FEDERAL INCOME TAX IS VIEWED AS UNFAIR

Federal Tax Treatment of Persons With Identical Incomes

Biased in Favor	Biased Against
1. Homeowner	Renter
2. Married couple with one income	Single person
3. Persons who borrow heavily and deduct interest expense	Persons who save and pay their bills on time
4. Self-employed businessman who deducts three-martini business lunch	Blue-color worker who cannot deduct bologna sandwich
5. High-tax bracket person who invests in tax shelters (e.g., municipal bonds or real estate investment trusts)	High-tax bracket person who invests in fully taxable ventures

SOURCE: ACIR staff.

Public hostility to federal income tax is also caused when persons at the same income level have very different tax liabilities (*Figure 1–1*). For example, is it fair that those who save and pay their bills on time pay more income tax than others who can deduct interest expenses because they borrow heavily? Such tax preferences create economic distortions by encouraging behavior that minimizes tax liabilities rather than maximizing before-tax profits—thereby contributing to a less efficient allocation of resources and to reduced national income and employment.

The welter of tax preferences may also encourage tax evasion: the IRS estimated that it lost $87 billion through evasion in 1981—beyond the revenues foregone through legal use of tax preferences.

Although the federal personal income tax is under sustained attack, those who would be tax reformers do not agree among themselves on how to improve it. Some would plug selected loopholes, despite the fact that one man's loophole is another's cherished principle. Others would "flatten" the tax rate schedule in order to increase work incentives, although this would raise tax burdens for those who are not wealthy. Still others would start with a clean slate, avoiding the various tax treatments of different forms of income, saving, and spending. They would replace the income tax with one limited to consumption. Other parts of the federal revenue system (notably the corporate income tax) are also subject to both criticism and suggested reform.

The fervent and divisive debate on reforming the federal revenue system has itself been a stumbling block that has slowed any permanent change. Would-be reformers have been reluctant to accept a deficit reduction plan that does not also make the federal revenue system fairer or provide greater economic growth incentives.

For our purposes, discussion of reform proposals (emphasizing national issues) has not adequately considered three key questions of fiscal federalism:

1. How would any change in the federal revenue system affect federal itemizers' ability to deduct the state-local taxes they pay?
2. How would the tax exemption of state and local bonds be affected?
3. Would any federal change weaken the preeminent position of states and localities in sales taxation?

Given this background, our analysis of various proposals for increasing federal reve-

nues takes both a national and an intergovernmental perspective, weighing both their intended overall advantages and their likely consequences for fiscal federalism.

POLICY RECOMMENDATIONS

Overview

Although this study focuses on the intergovernmental effects of possible federal revenue increases, the Commission also wished to express its concern about the lack of fiscal discipline in the federal budget process. *Recommendation 1*, therefore urges the Congress to move toward a balanced budget and to use the revenues generated by tax increases for deficit reduction purposes only.

Ill-advised actions in Washington (although taken in the name of deficit reduction or tax fairness) may threaten fiscal federalism, weakening the ability of state and local governments to tax and to borrow. Repealing the federal deductibility of state-local taxes and taxing interest on state-local bonds are two federal revenue enhancement measures that have far-reaching intergovernmental ramifications. *Recommendation 2*, therefore, urges consultation with state and local elected officials before transforming the federal revenue system.

One revenue proposal, a national value added tax (VAT), would both effectively tax the production and sale of commodities for consumption, and weaken the sales tax prerogatives of states and localities. The very appeal of a VAT—it can raise large revenues at low rates—makes it a threat to the fiscal discipline and accountability of the national government. *Recommendation 3* registers Commission opposition to a national value added tax.

ACIR's longstanding concern for fiscal discipline and accountability supports retention of the indexation provision in the federal income tax code. This support for indexation is embodied in *Recommendation 4*.

Recommendation 5 opposes a general increase in federal excise taxation because the fiscal benefit to the federal government would be more than offset by the harm to state-local revenue-raising powers.

The interest of all governments (and their citizens) in fostering economic growth must be weighed against the risks of using tax exempt bonds for "private purpose" financing. *Recommendation 6* suggests specific Congressional restrictions on tax-exempt bonds.

Recommendation 1

FEDERAL BUDGET RESTRAINT*

The Commission concludes that timely action must be taken to move the federal budget toward a balanced position. The federal budget has been balanced only once in the past 25 years and steadily rising deficits are beginning to threaten the economic health of the nation. **The Commission therefore recommends that the Congress move toward balancing federal budget revenues and expenditures as quickly as possible. The Commission further recommends that any additional revenue generated by changes in the federal tax structure, until such time when the federal budget is in balance, be earmarked for deficit reduction purposes. In addition, the Commission urges Congress to consider using a separate capital budget for long-term capital investments and granting the President line-item veto authority as two potential tools for restoring discipline to the federal budgetary process. The Commission also directs the staff to study and evaluate the applicability to the national government of state experience with constitutionally mandated balanced budget requirements, gubernatorial line-item vetoes over appropriations bills and capital budgets.**

The federal budget deficit was $195 billion in FY 1983, and some sources projected the outyears to 1990 to range as high as $300 billion. Many public officials and economists view the large federal deficits as the most serious economic problem facing the nation today. There is widespread fear that the government demand for funds to finance the deficit will compete with the private demand for funds thereby pushing up interest rates and choking off the economic recovery.

The serious nature of the problem has been acknowledged by the Congress and the President, but agreement on a complete solution has

*Commission members Matheson, Passannante and Weiss opposed adoption of this recommendation. See dissent by Congressman Weiss on page 6.

proven elusive. On one side of the debate are those who favor tax increases and cuts in defense spending. On the other side are those who favor cuts in social programs, elimination of "waste" in all areas and removal of barriers to economic growth, i.e., high taxes.

Even if agreement on a deficit reduction package were to be reached in the near future, there is an obvious need for institutional safeguards that can reduce chances of a recurrence of similar problems. A number of institutional changes have been put forward, chief among them are the capital budget, the line-item veto, a Constitutional amendment requiring a balanced federal budget, or a resolution or statute mandating a balanced budget.

The balanced budget idea is controversial, particularly the Constitutional approach. Currently 32 states of the 34 required have passed resolutions petitioning Congress to call a Constitutional convention to consider a balanced budget amendment.

All but one state has a statute or constitutional provision requiring a balanced budget and these provisions, whether constitutional or statutory, have been effective. The states do, of course find ways to circumvent balanced budget requirements on occasion, but the means or the inclination to run continuous, massive deficits (as the federal government has done) do not exist at the state level. The existence of capital budgeting and the line-item veto in most states has also acted to impose fiscal discipline on state budgets.

Recommendation 2

PRIOR CONSULTATION

The Commission recognizes that the federal tax system could be restructured in ways that would affect state and local funding. The commission recommends, therefore, that national policymakers consult extensively with state and local elected officials before charting any major new course for federal revenue policy.

In particular, broad federal income tax reform which reduces or eliminates a wide range of tax benefits may substantially restrict two provisions of the present income tax that provide fiscal assistance to state and local governments—deductibility of state and local taxes and the tax exemption of interest on state and local bonds. Therefore, such federal tax

DISSENTS TO THE RECOMMENDATIONS ON FISCAL RESTRAINT AND INDEXATION, CONGRESSMAN THEODORE WEISS

Balanced Budget Resolution:

I believe that this recommendation is ill-conceived and unsupported. First, all agree that we must strive to reduce the enormous federal deficits. However, these deficits have been created by the tax and economic policies of the past three years and will not be solved by artificial, unspecific, federal budgeting proposals. Second, any constraints imposed on the federal budget must recognize that because of the federal government's role in macroeconomic stabilization, the function of the state and federal budgets are not completely analogous. Third, research and discussion to date have failed to address critical questions such as whether a Constitutional amendment to require a balanced budget would be immediate or phased in, whether it would be suspended in times of national emergency, the role of capital budgeting, or any discussion of pay-as-you-go systems, among others. It is the responsibility of this Commission to go beyond easy, popular solutions to what is a difficult and complex issue.

Income Tax Indexation:

The enormity of the current federal budget deficit dictates that measures that would reduce tax revenues be carefully considered. Current estimates by the Joint Tax Committee of the revenues lost by instituting indexing are $6.2 billion in fiscal year 1985, $16.6 billion in fiscal year 1986, $27.8 billion in fiscal year 1987, and $39.6 billion in fiscal year 1988. By the end of fiscal year 1988, the cumulative loss of tax revenue would be approximately $90 billion.

While income tax indexation is of some benefit to low and moderate income taxpayers, it is only a stop-gap measure which fails to address the two critical issues in the present tax system: Equity and generating sufficient revenues. More fundamental tax reform must address the problem of low and moderate-income taxpayers bearing the brunt of inflation. At the same time, it can generate sufficient revenues to maintain critical social programs and provides a more equitable alternative to indexation.

reform and revenue raising efforts should include explicit consideration of potential harm to state and local ability to raise revenues and to borrow funds.

Deficit reduction efforts may prove to be a threat to both the deductibility of state-local tax payments and the tax exemption of interest on state-local bonds because of the large amounts of revenue that could be gained by curtailing these provisions. In fiscal 1985, the federal revenue foregone because of deductibility is estimated at $31 billion; the federal revenue foregone because of interest exemption on state and local bonds is estimated at $20 billion.[1]

A move to a more comprehensive income tax would also threaten these two provisions of the income tax of special interest to state and local governments. Use of a truly comprehensive income tax would repeal deductions of any state-local taxes and would make interest payments on state and local bonds fully taxable. A more modest plan, such as the Bradley-Gephardt proposal, would completely eliminate some tax deductions, reduce the value of others, and would tax interest on all state-local bonds other than general obligation bonds.

On the other hand, the ability of individual taxpayers to deduct state and local taxes from their federal income tax makes it easier for state and local governments to raise revenues. Similarly, the ability of state-local governments to issue tax-exempt bonds lowers their borrowing costs. Given recent cuts in federal grants to state and local governments, the benefits from the deductibility and tax-exemption provisions of the federal income tax have become more important in maintaining the fiscal health of states and localities.[2]

Recommendation 3

OPPOSITION TO FEDERAL VAT

The Commission concludes that major intrusion into the consumption-tax field by the national government would restrict the ability of state and local governments to raise revenues, would provide a powerful new engine for increased federal spending, and would reinforce centralization and the fiscal dominance of the federal government at the expense of state and local governments. The Commission therefore recommends that the national government refrain from enacting a major consumption tax as an additional revenue source or as a replacement for other federal taxes.

Although the Commission is aware of the theoretical economic and tax-policy advantages of a VAT, the practical weaknesses of the tax outweigh its strengths. Of particular concern to the Commission is the fact the enactment of a major new tax could powerfully accelerate federal spending. The VAT can be a very productive revenue source because of its broad base, and therefore a small rate increase can produce a large amount of revenue at little political cost. Given the experience of the past 25 years, when federal budget expenditures increased from 19% to about 25% of GNP, the Commission is reluctant to support a new tax that could provide large amounts of additional revenue for federal spenders.

Further, the Commission is concerned that a major federal consumption tax could potentially restrict the ability of state and local governments to use the sales tax to meet future revenue needs. The general sales tax provides about 13% of total state-local revenue nationwide and in several states provides more than 20% of state-local revenue. The Commission believes that the consumption-tax field should continue to be the province of state and local governments.

Recommendation 4

RETAIN INDEXATION*

The Commission reaffirms its support for indexing the federal personal income tax. If and when Congress raises income taxes, that tax increase should be the consequence of direct legislative action and not the result of inflation-induced bracket creep.

One federal revenue-raising option that appears on many budget balancers' lists is repeal of federal individual income-tax indexation that is scheduled for January 1, 1985. Repeal would save about $17 billion of revenue in FY 86 increasing to $65 million in FY 89, depending on the rate of inflation. Repealing indexation is more attractive to many politi-

*Congressman Weiss dissented. See facing page.

cians because it is easier to take away a scheduled reduction that has not yet become effective than it is to raise tax rates or to broaden the tax base.

On the other hand, indexation would help take away the unlegislated revenue increases that have made it easy politically to spend more and increase the size of government. Indexing would add fiscal discipline to the federal budgetary process—particularly when coupled with measures that would enforce deficit reduction.

The ACIR has recommended indexation of federal and state income taxes since 1976. Four major considerations prompted the Commission to recommend that the Congress index the federal income tax:

- **Fiscal Accountability**—Indexation is needed to ensure that higher effective income tax rates are the product of overt legislative action rather than the automatic consequence of inflation.
- **Tax Equity**—Fairness requires that increases in tax liability be based on real, rather than purely inflation-induced, income growth.
- **Public Sector Growth**—Without indexation, there is a bias in favor of an expanded public sector because inflation automatically pushes taxpayers into higher tax brackets, generating unlegislated revenue increases.
- **Fiscal Imbalance**—Without indexation, inflation aggravates intergovernmental fiscal imbalance because the federal government is the primary beneficiary of the "inflation tax."

Recommendation 5

NO INCREASE IN FEDERAL SELECTIVE EXCISE TAXES

The Commission concludes that the benefits the national government would derive from increasing federal selective excise taxes would be more than offset by the negative effects such actions would have on state and local revenue-raising ability. The Commission recommends that Congress resist pressure to increase federal reliance on selective excise taxes.

The Commission's concern is mainly directed at excise tax increases to be used for general fund purposes. Increases directly earmarked for state and local programs such as transportation and medical care cause less concern.

Both the federal and state-local governments have levied selective excise taxes on alcoholic beverages, cigarettes and motor fuel for decades. State-local levies, however, have grown faster than federal collections. The federal government froze its tax rates after 1960, while states have repeatedly increased theirs during the past two decades.

After two decades of virtual indifference to excise taxes, the federal government has increased excise tax rates. The *Tax Equity and Fiscal Responsibility Act of 1982* temporarily doubled the federal cigarette tax to 16¢ per pack. Similarly, the *Surface Transportation Assistance Act of 1982* raised the federal tax on motor fuels from 4¢ to 9¢ per gallon. The *Tax Reform Act of 1984* raised the excise tax on liquor by $2 per gallon to $12.50. (No action was taken on cigarettes, allowing the rate to drop back to 8¢ per pact on January 1, 1985.) In 1983, the Advisory Council on Social Security recommended increasing federal taxes on alcohol and tobacco and earmarking the extra revenue to Medicare.

Continued access to excise taxation is a real concern for the state-local sector. When faced with a revenue shortfall, states and localities have usually opted first to raise certain excise taxes. Because of scant political opposition to raising such "sin" taxes, these taxes are selected when relatively small amounts of revenue are needed. Hence, excise taxes provide needed state-local budgetary flexibility.

A substantial increase in federal excise tax rates would spell double-trouble for state revenues. By depressing consumption, tax bases would be eroded. In addition, it would be more difficult for states and localities to increase their own tax rates. Furthermore, because excise taxes tend to be regressive, increases would bear more heavily on low income than on high income persons.

Although ACIR opposes more intensive and general federal use of these tax sources, it recognizes that increases in the federal motor fuel tax benefit states and localities by supporting the Federal Aid Highway System. Federal gas tax increases are not necessarily at odds with state-local fiscal requirements.

Recommendation 6

LIMITATIONS ON TAX-EXEMPT BONDS

The Commission concludes that state and local interests in issuing tax-exempt bonds for private forms of economic development must be balanced against federal aversion to financing private projects that are widely viewed as not deserving federal assistance. The Commission opposes the imposition of new federal volume caps. It recommends, however, that Congress build on the reforms enacted in the *Tax Equity and Fiscal Responsibility Act of 1982* (TEFRA) by: (1) eliminating tax-exempt financing for projects that do not merit federal assistance or that do not contribute to economic development; (2) eliminating certain opportunities for "double-dipping" in which private businesses benefit from another federal tax benefit in addition to tax-exempt financing; and (3) limiting the total amount of "small-issue Individual Development Bonds (IDBs) allowed to any one user.

These restrictions should not apply to:
1) multifamily housing bonds,
2) economic development bonds for distressed communities,
3) single family mortgage subsidy bonds.

(If Congress reactivates tax exemption for single family mortgage subsidy bonds, the previous volume caps also should be reactivated for those bonds.)

This is the first time that ACIR has recommended that Congress set standards or specifically limit state-local government issuance of tax-exempt bonds. In 1963, when industrial development bonds were first examined and in its 1979 recommendations on mortgage revenue bonds, the Commission recommended that general standards and program specifics be set by the states.

At its March 1984 meeting, the Commission considered the explosive growth in the volume of private purpose tax-exempt bonds and the abuses that have arisen as a consequence. It recommended that Congress enact legislation, building on the reforms initiated in the *Tax Equity and Fiscal Responsibility Act of 1982*, to limit three specific types of practices. These recommendations were also included by the Administration in its 1984 legislative program.

The first limitation recommendation by the Commission is the elimination of tax-exempt financing for projects that do not merit federal assistance or that do not contribute to economic development.

- Tax-exempt IDBs would no longer be available to finance airplanes, stadium "sky boxes," gambling establishments or liquor stores.
- IDB financing would not be permitted when more than 25% of the proceeds would be used to acquire land (other than farmland).
- IDBs could not be used for acquisition of existing facilities unless at least 15% of the cost of acquiring a building and equipment went to rehabilitate that building and equipment.

The Commission's second limitation is directed toward situations in which tax-exempt financing is combined with other federal subsidies—so-called "double-dipping." Thus, tax exemption would be denied for issues guaranteed or backed by certain federal agencies, with the exception of obligations backed by FHA or VA-issued mortgages and obligations issued to finance student loans. Thus, the cost of sewage or solid waste disposal facilities, air or water pollution control facilities, and projects financed in part by Urban Development Action Grants using tax-exempt bonds would be recovered on a straight-line depreciation (rather than on an accelerated depreciation) basis.

The third limitation recommended by the Commission restricts the use of small IDBs by

large corporations. At present, the $10 million restriction on the total amount of IDBs that can benefit one user applies only to one jurisdiction. This allows large firms to make use of $10 million in tax-exempt financing in each of many jurisdictions. The Commission recommendation would limit the amount of small-issue IDBs for any user so that no principal user could benefit from more than $40 million in outstanding IDB financing.

FOOTNOTES

[1]Data from U.S. Office of Management and Budget, *Special Analyses, Budget of the United States Government, Fiscal Year 1985*. Washington, DC, U.S. Government Printing Office, 1984, Table G–2, pp. G–43 to G–48.

[2]Federal aid to state and local governments has dropped from $231 per capita (in constant—1972—dollars) in 1978 to $170 per capita in 1983. (ACIR, *Significant Features of Fiscal Federalism, 1982–83 Edition*, M–137, Table 3, p. 10.)

Chapter 2

Major Alternative Revenue Policies

INTRODUCTION

Current concerns about the federal budget deficit have led to pressures both to reduce federal spending and to collect more tax revenues. Any action to expand federal tax revenues also provides the opportunity for fundamental tax reform. The movers for tax reform now march under three banners: (1) making federal taxes fairer to taxpayers; (2) reducing the economic distortions in the federal tax system; and (3) adding additional incentives for economic growth. (Adding incentives for economic growth can itself take different forms: encouraging risk taking, reducing the tax bite on additional income, stimulating capital formation and helping resources move to the most productive sectors of the economy.) The possible increase in federal taxes that is intended to cope with the current deficit problem provides an opportunity to move toward these goals, although, as we will see, particular reform proposals work toward some goals at the expense of others.

Alternative Revenue Paths to Deficit Reduction

Table 2–1 outlines the major proposals for strengthening the federal revenue system that are outlined in this chapter, while *Figure 2–1* provides a comparative assessment of them.

Table 2–1

A COMPARATIVE DESCRIPTION OF THE MAJOR REVENUE PROPOSALS FOR REDUCING THE FEDERAL DEFICIT

Tax Change	Estimate of Additional Revenue for FY 85 in Billions* (source)	Total FY 85 to FY 89 Revenue Estimate in Billions	Tax Rate	Tax Base
INCREASE TAX RATES				
1. Repeal Individual Income Tax Indexing	$17 (CBO, FY 86)	$165	N/A	Adjusting the individual income tax to changes in the Consumer Price Index is scheduled to begin January 1985. Under indexation, income tax brackets, standard deduction, and personal exemptions will be adjusted to annual inflationary economic changes. A federal deficit reduction proposal would suspend or eliminate indexation. CBO revenue estimates used inflation factors ranging from 4.8% in 1984 to 4.3% in 1989.
2. Add Surtax to Individual and Corporate Income Tax	$39 (CBO)	$230–245	10% Surcharge	Existing individual and corporate tax base would be used with a 10% surcharge placed on tax liability.
BROADEN BASE OF INDIVIDUAL INCOME TAX				
1. Close Major Tax Loopholes (No Change in Tax Rates)	$25 (ACIR estimates based from CBO and OMB)	$170–210	No Change	Under the *Tax Equity and Fiscal Responsibility Act of 1982*, numerous minor tax changes were made to raise large amounts of revenue. This approach to close various tax loopholes and broaden the tax base remains a potential option. The revenue estimates assumes closing the following commonly discussed tax preferences (loopholes): tax 50% of Social Security and Railroad Retirement benefits over a specified threshold; tax unemployment compensation and workmen's compensation benefits; limit mortgage interest deductions to only primary residences; repeal charitable contributions for nonitemizers; eliminate the tax-exempt status for newly issued private-purpose state-local bonds; repeal state and local sales tax deductions; repeal the net in-

				terest exclusion; tax nonstatutory fringe benefits and some employer paid health insurance premiums; repeal deduction for consumer interest payments; and limit accelerated depreciation for individuals on equipment other than leased property. The revenue estimate assumes closing these loopholes.
2. Switch to Modified Flat-Rate Tax (Bradley-Gephardt Proposal)	$45 (ACIR estimate, assuming a 15% surtax)	$225–250	14%, up to $40,000 26%, $40,001–$65,000 30%, over $65,000 (for joint returns)	Under the current Bradley-Gephardt proposal, there would be a base tax rate of 14% and two surtax rates of 12% and 16%, depending on income level. The personal exemption would rise to $1,600 for each taxpayer and the standard deduction would be $3,000 for single taxpayers and $6,000 for married taxpayers. This measure would greatly broaden the income tax base but retains the popular deductions for interest paid on home mortgages, charitable contributions, large medical expenses, and state and local income and real property taxes. These deductions, however, apply only to income taxed at the 14% rate. The tax exclusions retained are for Social Security and veterans benefits, interest on municipal bonds for public purposes, IRA and Keogh accounts, and employee business expenses. As this proposal now stands, no additional revenues would be generated, although a modified proposal that would raise revenue is under consideration. For comparison purposes, ACIR assumes a revenue estimate based on a 15% surtax on tax liability.
3. Switch to a Comprehensive, Flat-Rate Income Tax	$45 (CBO)	$225–$250	22%	A flat-rate tax would provide one tax rate for all taxpayers and eliminate all tax preferences. To match current individual income tax receipts of about $300 billion, CBO assumptions are based on a 19% tax rate and raising the personal exemption to $1,500 from $1,000 and the zero bracket amount to $3,000 for single tax filers and to $6,000 from $3,400 for joint returns. Assuming that a 15% increase (or $45 billion) in revenue were desired, a 22% tax rate would be required.

Tax Change	Estimate of Additional Revenue for FY 85 in Billions* (source	Total FY 85 to FY 89 Revenue Estimate in Billions	Tax Rate	Tax Base
ENACT NEW CONSUMPTION TYPE TAX				
1. Add a Broad-Based Energy Tax	$11 (CBO)	$83	5%	A broad-based energy-consumption tax would tax domestic and imported energy, including petroleum, natural gas, coal, hydroelectric and nuclear power. The CBO revenue estimate is based on the value of energy produced, but alternative approaches could include taxing the units produced (such as tons or barrels) or the amount of heat content produced by each energy source measured by British Thermal Units (BTUs).
2. Add a Value-Added Tax (consumption-type)	$54 (ACIR)	$310-340	3%	A value-added tax is a tax on the value that a stage of production adds to a product. This added value is the sales price of the products sold, minus the purchase price of the inputs or raw materials used in production. The tax is levied at each stage of production and during resale. A consumption-type VAT would show the amount of VAT to be paid by the consumer separate from the selling price of the product. This tax would share certain characteristics with a state sales tax. A VAT can be devised to exclude from taxation business capital formation expenditures.
3. Switch to a Personal Expenditure Tax	$43–61 (Brookings)	$215–305	Similar to Current Income Tax System	A personal expenditure tax is similar to an income tax, but rather than taxing income earnings, it would tax individuals' spending and exempt from taxation savings and investment. The tax rates, personal exemption and zero-bracket amount can be formulated to be progressive. The major source of additional tax revenue would be derived from eliminating most tax preferences now in the federal tax code.

*Revenue estimates from the Congressional Budget Office and the Office of Management and Budget were made in February 1984.
SOURCE: ACIR staff.

Figure 2-1

MAJOR REVENUE PROPOSALS FOR REDUCING THE FEDERAL BUDGET DEFICIT— A COMPARATIVE ANALYSIS

KEY POLICY CONSIDERATIONS

	Effects At Federal Level								Effects At State-Local Level		
	Political		Administrative	Economic			Tax Equity		Fiscal		
Tax and Description	**Ease of Implementation[1]**	**Effect on Political Accountability[1]**	**Effect on Ease of Taxpayer Compliance**	**Effect on Capital Formation Incentives**	**Effect on Work Incentives**	**Effect on Economic Distortions**	**Effect on Progressivity**	**Effect on Horizontal Equity**	**Effect on Value of State-Local Tax Deductibility**	**Effect on Tax Exempt Bond Status**	**Threatens State-Local Sales Tax Position**
INCREASE TAX RATES											
1. Repeal Individual Income Tax Indexing	Fair	Very Poor	No Change	No Change	Slightly Weakens	Slightly Worse	Slightly Reduces	Slightly Worse	Enhances Value	Enhances Value	No
2. Add 10% Surtax to Individual and Corporate Income Tax	Fair	Good	No Change	Slightly Weakens	Slightly Weakens	Slightly Worse	No Change	Slightly Worse	Enhances Value	Enhances Value	No
BROADEN BASE OF INDIVIDUAL INCOME TAX											
1. Close Major Tax Loopholes (no tax rate reduction)[2]	Fair to Good	Fair	Slightly Improves	No Major Change	No Major Change	Slightly Improves	Slightly Increases	Slightly Improves	Major Weakening	Major Weakening	No
2. Switch to Modified Flat-Rate Income Tax	Fair to Good	Good	Considerably Improves	Slightly Weakens	Considerably Improves	Considerably Improves	Slightly Reduces	Considerably Improves	Major Weakening[3]	Major Weakening	No
3. Switch to a Comprehensive, Flat-Rate Income Tax	Very Poor	Good	Greatly Improves	Slightly Improves	Greatly Improves	Greatly Improves	Greatly Reduces	Greatly Improves	Complete Elimination	Complete Elimination	No
ENACT NEW CONSUMPTION-TYPE TAX											
1. Add a Broad-Based Energy Tax	Fair	Good	No Change	No Change	No Change	No Major Change	Slightly Reduces	No Major Change	No Change	No Change	No
2. Add a Value-Added Tax (consumption-type) to current law[4]	Poor	Poor to Good[5]	No Change[6]	Slightly Improves	No Change	No Major Change	Slightly Reduces	No Major Change	No Change	No Change	Possibly[7]
3. Switch to a Personal Expenditure Tax	Very Poor	Good	Greatly Improves	Greatly Improves	Considerably Improves	Greatly Improves	Slightly Reduces	Considerably Improves	Complete Elimination	Complete Elimination	No

SOURCE: ACIR staff.

[1]On a scale of one (1) to four (4), very poor = 1, poor = 2, fair = 3, and good = 4. "Fair to good" and "fair to poor" occupy intermediate positions. See also Note 5.

[2]Refer to *Table 1* for a complete listing of selected tax loopholes. From that selection, the largest revenue sources would be: eliminating the exclusion for private-purpose tax exempt bonds, repealing deductibility of consumer interest payments, taxing 50% of Social Security benefits, repealing the state and local sales tax deduction, and taxing some employer-paid health benefits.

[3]Complete elimination of the sales and personal property deduction, coupled with a major reduction in the value of the real property and personal income tax deductions.

[4]Assumes that virtually all additional revenue obtained from the tax will be used for deficit reduction and not as a supplement for the elimination of any existing federal tax.

[5]"Poor" accountability if the tax is hidden; "good" political accountability if the total tax is stated separately at the retail level.

[6]Ease of tax compliance will be unchanged for individual taxpayers—although business taxpayers may find tax administration more complex, depending on the VAT's exact form.

[7]The seriousnness of the threat is determined largely by the height and visibility of the tax. A VAT with a relatively high rate (say 8%) that is stated separately at the retail level would be highly restrictive. Conversely, a VAT with a relatively low rate (say 3%) that is hidden in the retail price would be far less restrictive.

The three horizontal panels on these tables display the three principal paths to increased federal revenues: raising existing tax rates, broadening income-tax bases, and imposing a new consumption-type tax.

The columns of *Figure 2–1* set forth the criteria—such as ease of implementation—that are used to compare the proposals. Reading up and down a column enables the reader to compare each tax reform option in terms of a particular criterion. Many of the columns compare the current system with the whole tax system that would exist if that change were adopted. (For example, we ask whether or not specific changes to the tax code will make taxpayer compliance easier or harder than it is at present.)

RATE INCREASES

The Two Major Approaches: Overt or Covert

The first two proposals of *Table 2–1* and *Figure 2–1* raise income tax rates, doing so overtly (through a surtax) or "covertly" (through repealing indexation). A surtax on the income tax would change neither the tax base (that is, the definition of taxable incomes) nor the graduated rate structure. Very likely, the surtax would just be a surcharge applied to the tax liability of individuals and corporations, raising their effective tax rates.

The 10% surcharge outlined in *Table 2–1* would simply add 10% to each payer's tax liability, whether income (or tax burden) is low or high and whether the return makes heavy use of deductions, exemptions, exclusions or other items of tax preference. That surcharge would add an estimated $39 billion to federal collections in FY 85 and a total of from $230 to $245 billion for fiscal years 1985–89.[1] Because the additional tax owed would probably be listed on the tax return, just after the calculation of previous tax liability, this surcharge would be a very "visible" tax increase.

Repealing indexation of the personal income tax would also raise rates, but it would do so in an implicit or covert fashion—one that would not be fully understood by many individual taxpayers. Increases in price levels increase tax liability in three ways: (1) by eroding the value of personal exemptions, (2) by pushing payers into higher tax brackets, and (3) by artificially increasing the value of assets such as real estate or stocks. When the individual income tax is not indexed to the price level, inflation raises tax liabilities faster than it raises reported incomes, thus leading to an inflation-adjusted reduction in income after tax. For example, the Congressional Joint Committee on Taxation has estimated that for every 10% increase in the price level, tax burdens will increase an average of 16%. Inflation, even at a slow pace, steadily raises the bite of an unindexed personal income tax, even in the absence of overtly legislated rate hikes.

Repealing indexation would add an estimated $17 billion to federal revenues in FY 86, the first full year of its planned operation. From FY 85 through FY 89, repeal would increase the income tax proceeds by roughly $165 billion—depending, of course, on the future rate of inflation.

The revenue gains from these rate increases are not large compared to the level of current and projected future federal deficits. However, either (or both) of such rate increases could be a part of federal action for deficit reduction. And either rate increase (especially the very noticeable surtax) might serve to signal to the nation that Washington is acting to try to resolve its deficit problem.

Four states (Nebraska, North Dakota, Rhode Island and Vermont) currently couple their individual income tax to the federal levy. That is, the state tax is simply a stated percentage of the taxpayer's federal liability. (In North Dakota the coupled calculation may be chosen by the payer.) With this coupling of individual income taxation any increase in the federal rate causes a proportional increase in the state's collections. Most other states link their income tax calculations to the federal practice in a somewhat more complicated way, with consequences that will be discussed below.

Because the surtax is the simpler of the two rate increases, it will be discussed first.

Adding a Surtax: An Overt Rate Increase

Ease of Implementation

Without any necessary change in the tax base

or the rate structure, an income tax surcharge would be one of the most easily implemented of any alternative we consider. As outlined below, the relatively small and proportional rate increase would not significantly affect economic or tax equity concerns of interest here; neither would it have any deleterious effect on fiscal federalism.

Accountability

The simplicity of a surcharge, taxpayer experience with past surcharges, and the "visibility" of surtax calculations combine to give this revenue alternative quite a high degree of political accountability. Constituents will likely understand what their representatives are voting on; taxpayers will see the surcharge on their tax returns.

Surcharges are often described as temporary and have been removed in the past. At the present time, however, one cannot be sure whether or not citizens will accept any assurances that a surcharge will indeed be temporary.

Ease of Compliance

Compared to the other complexities of income tax returns, a surcharge is easy to calculate. Consequently, it would not appreciably change what is demanded for taxpayer compliance with the tax laws, making compliance neither easier nor more difficult.

From political and administrative considerations, a strong advantage of a surcharge is its combination of simplicity, familiarity, and (to be outlined) limited adverse effects on the economy and on fiscal federalism. The surcharge is obviously evenhanded. Rich and poor, individual and corporation—all taxpayers would have to cough up an additional 10%.

The simplicity and ease of execution of a surcharge, however, come at a definite cost. It would not resolve any of the problems caused by the existing income tax system. By helping to cope with the deficit, a surcharge might even defuse pressures for fundamental tax reform.

Economic Considerations

Our analysis emphasizes three ways in which the federal tax system might possibly affect the national economy: first, tax-based incentives (or disincentives) for capital formation by economic enterprises; second, effects on individuals' work incentives; and third, tax-based tendencies to distort the economy by differential treatment of different goods, services, spending patterns or income sources.

Although remedies have been attempted, the current individual and corporate income taxes have been criticized along each of these three lines. Many argue that despite recent remedies, the corporate income tax still does not provide enough of an incentive for capital formation: The tax breaks are not broad or valuable enough and the tax on the returns to investment may be discouraging. Similarly, critics of the individual income tax argue that high marginal tax rates discourage extra work effort, especially by those already earning substantial incomes. And the complexities of "items of tax preference" under both individual and corporate income taxes may act to distort the economy. For both taxes, there are seemingly arbitrary definitions of tax preferences. For example, a salesman may readily deduct his business lunch, but not so a construction worker. The latter may deduct his hardhat (if he itemizes deductions) but a salesman cannot deduct his three-piece suit.

In that a surcharge would not change the structure of individual and corporate income taxes, it does not address the economic concerns stated. In that a surcharge simply raises tax rates, it indeed makes these purported problems slightly worse. Higher tax rates exacerbate disincentives to increased individual and corporate incomes. Higher rates also make tax "breaks" more valuable, increasing the resulting economic distortions. Since the economic concerns we have identified are dealt with directly only by more substantial changes in the federal tax system, we will return to this topic in discussing other tax system alternatives.

Progressivity

An important tax equity concern is the progressivity of the tax system, which is related to the fractions of tax burdens borne by payers at various income levels. Because the surcharge discussed here would increase each payer's liability by an equal percentage amount, the relative burdens of taxpayers would not change.[2]

Horizontal Equity

A tax system's progressivity pertains to its "vertical" equity—that is, with regard to different income levels. A system that is "horizontally" equitable taxes similarly those taxpayers in similar circumstances, notably those with similar incomes. Under current law, two individuals of the same pre-tax income but with differing amounts of deductible spending or other items of tax preference are treated quite differently. By the same token, a corporation that can exploit corporate tax breaks is treated more favorably than one that is otherwise similar. By hiking tax rates, and thus making items of tax preference more valuable, a surcharge makes the system's horizontal inequity slightly worse.

State-Local Tax Deductibility

As detailed elsewhere in this report, those individuals who itemize deductions on their federal income tax returns may deduct state and local taxes paid. (All payers of the federal corporate income tax may subtract state-local taxes as business expenses.) Such deductibility has been a feature of the modern federal income tax since its inception and, some argue, respects the principle of "reciprocal sovereignty" for both the national and subnational governments. Muting interstate and interlocal tax competition, deductibility is an important feature of fiscal federalism.

The sums of money involved are not small. The Congressional Research Service estimates that without deductibility federal revenues would have been about $29 billion larger in FY 83—not only is deductibility costly to the U.S. Treasury, it is valuable to itemizers. Because itemizers on the average are now subject to marginal tax rates of 29%, they actually pay a net of only 71¢ for each additional state-local tax dollar collected. Eliminating (or even restricting) deductibility, as has been suggested in some quarters, would make it more difficult for states and localities to raise tax rates.

A federal income tax surcharge does not threaten the deductibility of state-local taxes; it poses no risk for this foundation of current fiscal federalism. Indeed, by raising effective tax rates, the surcharge would make deductibility somewhat more valuable in reducing individuals' federal tax liabilities. Thus, a 10% surcharge would raise the "average itemizer's" marginal tax rate to about 32% so that the net payment is only 68¢ for each state-local tax dollar collected.

Tax-Exempt Bonds

Interest on state-local bonds has been exempt from federal income tax since the inception of that tax. If that exemption were removed for all bonds now outstanding, then (according to an OMB estimate) federal revenues would increase by $20 billion in FY 85.

The tax exemption of state and local bonds is yet another foundation of fiscal federalism, allowing governmental issuers lower borrowing costs than if their bond interest were taxed. Tax exemption is not threatened by an income tax surcharge, which actually makes this tax feature more valuable.

Sales Taxation

States and localities levy general sales taxes; the federal government does not. Unlike proposals for a national sales tax or other "consumption-type" taxes, a surcharge on federal income taxes would not involve the national government in sales taxation and therefore would neither limit state-local sales tax "headroom" nor threaten these governments' position as the sole collectors of general sales taxes. Because of consumer resistance, federal sales taxation might limit state-local ability to increase tax rates.

Repealing Indexation: A Covert Rate Increase

Indexation, which was enacted into law as part of the *Economic Recovery Tax Act of 1981* (ERTA), will not become effective until January 1985. To consider the likely effects of repealing indexation, we must examine what price inflation does to federal collections of the personal income tax.

Political and Administrative Considerations

Those who favor repealing indexation argue that because taxpayers have not yet come to rely on it, it is one of the least traumatic ways to increase revenues. (Several states have first

indexed their personal income taxes and then succeeded in suspending indexation.) Repeal of indexation is implemented simply by failing to tie certain aspects of tax computation to the price level, which is certainly not difficult to do. Unless there is angry taxpayer resistance (likely only if inflation flared up again), dropping indexation should not affect compliance with the tax laws. As outlined below, however, repealing indexing would weaken political accountability, weaken Washington's fiscal discipline and erode tax equity. Moreover, repealing indexation (or even delaying it) would entail reneging on a promise that Congress made to the taxpayers in 1981.

Political Accountability

Because an unindexed income tax increases revenues without any legislative action, it violates the principle of accountability which demands that tax increases be made explicitly, so that taxpayers know whom to hold responsible. Of course, Congress can always adjust federal brackets, tax rates, personal exemptions and the standard deduction, to prevent inflation-induced tax increases. Such adjustments, however, may be presented to the public as tax "cuts," when in fact no noninflationary tax-cutting is occurring at all. These adjustments in response to inflation do not actually cut federal revenues—having usually retained some of the inflation-induced increase; they simply trim inflation's boost to tax collections. Indexation avoids the necessity for such artificial corrective actions.

Indexation increases political accountability in another way. Through their macroeconomic and monetary policies, the national government and the Federal Reserve System are responsible for keeping inflation under control. When these efforts are unsuccessful and inflation flares up, an unindexed tax makes the U.S. Treasury an automatic beneficiary. The taxpaying public loses twice, through both higher prices and a heavier tax burden.

Fiscal Discipline

The automatic revenue increase generated through inflation can foster increased spending, enabling policymakers to avoid making hard choices. Conversely, preventing automatic revenue growth encourages—actually forces—policymakers to examine their budgetary priorities.

Effects of Inflation

Inflation erodes the value of the zero bracket amount (i.e., the standard deduction) as well as the value of personal exemptions, making the income tax less progressive. It also causes the "bracket creep" which forces taxpayers into higher tax brackets. Even though the payer's real (i.e., inflation adjusted) pre-tax income may have stayed the same, his or her real tax liability will increase, and real, after-tax income will be diminished. ERTA indexed zero-bracket amounts, personal exemptions and bracket levels to inflation. It did not, however, resolve another inflation-caused problem: Inflation artificially heightens asset values. For example, in an inflationary economy the value of a stock must increase simply to keep up with the price level. When that stock is sold, the taxpayer is liable for taxes based on the increase in nominal—not real—value. Taxes may even be due on the sale of a stock whose real value has decreased.

Unlegislated Tax Increase: An Example

When the income tax is unindexed, inflation helps fill federal coffers without Congress having to legislate rate increases or plug loopholes. Depending on the inflation rate, the amount of additional revenue gained can be substantial. When the price level increases 10%, income tax revenues increase 16%; but continuing inflation compounds this "inflation tax" because it compounds the problem of bracket creep. Three years of 5% inflation would increase revenues by about 25%—ERTA's whole three-year tax cut. With an unindexed income tax, it is the compounding effect of bracket creep that causes the worst hardships. For example, in calendar 1982 a single person with an income of $15,000 would have been in the 23% marginal tax bracket—a middle-level bracket. If indexation were repealed, if inflation averaged 8%, and if the pre-tax income of this hypothetical taxpayer just kept pace with inflation, that person would be in the highest tax bracket by 1996—facing a

marginal tax rate of 50%, while being no richer in real terms than in 1982.

Economic Considerations

By effectively increasing the rate of personal income taxation, repealing indexation would slightly exacerbate the economic problems of the existing tax system. The degree to which it would do this depends, of course, on the future level of inflation. By raising marginal tax rates, repealing indexation would further reduce work incentives and increase distortions in those consumer spending patterns that are intended to reduce tax liability. The repeal of indexation would not, however, directly affect the *corporate* income tax and thus would not change the ways in which the tax laws influence capital formation by economic enterprises.

Tax Equity

Because inflation erodes the value of personal exemptions and the zero-bracket amount, it especially hurts those low and middle income taxpayers (as well as large families) who most benefit from these features of the tax law. Moreover, bracket creep hurts low and middle income taxpayers the most because it tends to shift a large share of the tax burden onto them.

Table 2–2 shows how repealing indexation would move the federal revenue system toward regressivity. The table estimates who would bear the additional tax burden if indexation were repealed, compared to who would pay a surcharge on the personal income tax. (Because a surcharge is calculated as a percentage of current tax liability, its burden by income group would naturally be almost identical to existing burdens.) Only 14.5% of a hypothetical sur-

Table 2–2

ESTIMATED DISTRIBUTION OF INCREASED PERSONAL INCOME TAX PROCEEDS COLLECTED UNDER TWO DIFFERENT RATE INCREASES, CALENDAR YEAR 1985

Expanded AGI ($000s)[1]	Across the Board Tax Surcharge	Repeal of Indexation
$ 0–10	2.4%	6.0%
10–20	12.1	16.0
20–30	18.0	20.6
30–40	17.3	19.2
40–50	11.8	13.1
50–75	13.0	13.1
75–100	5.4	4.4
100–200	9.4	5.4
$200+	10.6	2.1
Total[2]	100.0%	100.0%
Summary:		
$ 0–20	14.5%	22.0%
20–50	47.1	52.9
$ 50+	38.4	25.0

[1]Expanded AGI is adjusted gross income plus excluded capital gains and other items of tax preference, less investment interest to the extent of investment income.
[2]Includes negative expanded AGIs. Details may not add to totals because of rounding.
SOURCE: ACIR staff calculation of April 10, 1984, using 1982 income data, following the method of the Joint Committee on Taxation, *Description of Possible Options to Increase Revenues*, U.S. Government Printing Office, Washington, D.C., June 15, 1982.

charge would be paid by those whose incomes are less than $20,000; the same group, however would pay half again as much—22%—of the increased proceeds gained by repealing indexation. Those with incomes of $50,000 or more would have an easy time of it without indexation, paying only 25% of the additional collections, as contrasted with 38.4% for a surcharge.

It is at the low and middle levels of taxable income that the current tax schedule is most steeply graduated (most progressive), so it is there that bracket creep is most visible. For example, for calendar 1984 a $10,000 increase in taxable income (from $13,000 to $23,000) moves the taxpayer through four different tax brackets, raising the marginal tax rate from 16% to 25%, an increase of nine percentage points. Increasing taxable income another $10,000 moves the taxpayer through a total of three different brackets, raising the marginal tax rate eight percentage points. However when taxable income rises from $33,000 to $43,000, only two brackets are traversed and the marginal tax rate rises by only 5%.

As with a surcharge, increasing rates by repealing indexation would further worsen horizontal equity by making tax "breaks" somewhat more valuable.

Fiscal Federalism

As is the case with a surcharge, repealing indexation would both somewhat enhance the value of state-local tax deductibility and enhance the value of exempting interest on state-local bonds. Repealing indexation would not threaten the state-local preeminence in sales taxation.

BROAD BASE INCOME TAXATION

Proposals to broaden the base of the personal (and often the corporate) income tax would make a fundamental change in that tax, eliminating many or even most items of tax preference (i.e., exclusions, deductions, exemptions and credits). Consequently, tax proceeds could be raised without raising many tax rates. Indeed, under several of the "comprehensive income tax" proposals, most average and marginal tax rates would actually fall.

Likelihood of Quick Adoption

The elimination of tax preferences under comprehensive income taxation is both its theoretical strength and its political weakness—the latter because each item of tax preference has its strong supporters and its own persuasive rationale. Consequently, there is little chance that the flat-rate tax proposal (the more extreme of the two we consider) would be adopted quickly. (The Bradley-Gephardt proposal is more of a compromise measure, however, and thus would have a considerably better chance for speedy passage. There are other compromise measures before Congress, such as HR 5533 and S 2600, introduced by Representative Jack Kemp (R-NY) and Senator Robert Kasten (R-WI). Plugging major tax loopholes might be somewhat less difficult than adopting a compromise measure depending, of course, on the loopholes that are plugged—that is, whose ox is gored.)

Ease of Implementation and Problems of Transition

The transition to a comprehensive income tax would be difficult, as would transition to any of the other major reform proposals considered here. Any such transition would work hardships on those individuals, businesses and charities that have come to depend on certain features of the current tax code. For example, limiting the extent, or tax-reducing value, of the current charitable deduction would act to reduce contributions.

The transition to more comprehensive personal income taxation could reduce the value of individually owned real estate, municipal bonds and other assets no longer benefiting from provisions in the current tax code. If the tax benefit of being able to deduct all mortgage interest is eliminated or weakened, for example, property would become a less desirable investment, exerting a downward influence on property values. Similarly, if the ability to exclude interest on municipal bonds is weakened, these bonds will also become less desirable investments. That, in turn, would tend to force bond issuers to offer higher interest rates, raising the cost of governmental borrowing.

Three general approaches could be employed to ease a major transition: (1) delaying the ef-

fective date of the new tax system, (2) phasing in specific new tax provisions, or (3) selective "grandfathering" of taxpayer decisions made under the old law. As an example of the last approach, if the tax preference accorded to interest payments on residential mortgages is eliminated but also grandfathered, those who signed such mortgages before the effective date could continue to receive the previous tax benefit. In that case, it could take 30 years—the term of many home mortgages—before the change in their tax treatment became fully effective.

The transition to a broadly based tax would also directly influence fiscal federalism. Most states' personal income tax bases set the federal tax base as a starting point for calculation. (Individual states usually add or subtract particular items from the federal base, however.) According to a March 1984 tally of the Federation of Tax Administrators, 24 states use federal adjusted gross income (FAGI) as the starting point for their own calculation. Another seven states use federal taxable income (FTI) as their starting point. (FTI is FAGI less deductions and personal exemptions. The count of the FTI states includes North Dakota, which alternatively allows individual taxpayers to calculate state tax liability as a stated fraction of their federal bill.)

Thus linked to the federal personal income tax, most states' proceeds would automatically increase with federal base broadening. (Some states, however, link their calculations to past federal law so future change would not necessarily affect them.) However the states with federally linked tax bases would be differentially affected by specific changes in the federal base. Not only is this because some state tax calculations are linked to FAGI and others to FTI, but because of interstate variations in the items that are added to the federal tax base that is used, or subtracted from it. Also, state individual income taxes differ in their rate structure, that is, whether and how rates are graduated with individuals' tax bases, so the tax-liability consequences of state tax base changes vary for yet another reason. In some states federal base broadening can push many taxpayers into much higher tax brackets but not in other states.

Estimating the combined effects of all the direct linkages between the federal base and state liabilities, a recent study found that repealing all federal itemized deductions would increase collections by 34% in California, but that in Montana—another state with a graduated personal income tax—collections would grow by only 6%. In not all states is personal income tax liability affected by federal itemized deductions, but in those that are, the estimated increased in collections would be between these two extremes.

Political Accountability

Because comprehensive income taxation differs from current law so strikingly, Congress's political accountability would certainly be high in the debate (perhaps "battle" is more accurate) on adoption. But equally important is the fact that the simplicity of such proposals would retain good accountability in their operation, since almost any subsequent change in law, procedures, and resulting collections would be easily understood by the public. However, if not all major tax "loopholes" are closed the resulting tax law would be only somewhat less complex. Accountability would be better than it is at present, though not as good as under a more comprehensive income tax base. (A loophole-plugging proposal is discussed below.)

Because the flat-rate tax proposal embodies the principles of comprehensive income taxation in strict form, it will be considered first.

The Flat-Rate Tax

Aside from taxing income, being withheld from earnings, and having both a personal exemption and a zero-bracket (i.e., standard deduction) amount, the flat tax proposal has virtually nothing in common with the current personal income tax, which it would replace. Flat-rate taxation has been discussed by Robert Hall and Alvin Rabushka[3] and two somewhat similar proposals have been introduced in Congress by Senators Dennis DeConcini (D–AZ) and Dan Quayle (R–IN).[4] In the form of flat-rate taxation considered here, all income exceeding the zero-bracket amount and the level of personal exemptions would be taxed at a uniform rate, which is 22% for the tax variant consid-

ered here and in *Table 2–1*.

Because of the comprehensive base and single rate, flat-tax returns would be very simple to fill out and audit, greatly facilitating compliance with the tax law. Moreover, in the variant of the flat tax examined here, the marginal tax rate would be a comparatively low 22% for all taxpayers under all circumstances. All income, including capital gains and other property income currently receiving tax preferences, would be taxed at the same rate as that for wage and salary earnings.[5]

Capital Formation

Applied to individuals, flat-rate taxation would remove the exclusion of part of capital gains the favorable treatment of Individual Retirement Accounts (IRAs), and other items of tax preference now available. In that respect, the flat tax would remove those federal tax incentives that now exist for individuals to invest in the economy. However, most flat tax proposals would also fundamentally change the corporate income tax. For example, they would eliminate complicated depreciation procedures, as well as equally complicated investment incentives in the form of accelerated depreciation provisions. Instead, corporate income taxation would be on a cash basis, wherein investments would be deducted from earnings, in full, the year they are made. According to CBO this "expensing" of business investment would mean that "[t]*he return to new business investment would be essentially tax-free* (italics added), but tax would continue to be collected at the 19% rate (the variant of the flat tax CBO examines) on the return to business investments made prior to the effective date."[6] This would be a powerful spur indeed for new business investment.

Balancing the investment effects that flat-rate taxation would have on individuals against its effects on corporations, and comparing the flat tax to other alternatives, we judge that this tax would probably slightly improve the existing incentives for capital formation. The incentives would not seem to be quite as great as they are with a personal expenditure or consumption tax that replaced the existing personal income tax. (Such a consumption tax would not tax any investment.) But the flat-rate incentives to capital formation would be greater than is the case with the present income tax code, whether or not modified by a surcharge or by the repeal of indexation. The present code—through its widely varying, seemingly haphazard treatment of different kinds of individual and business investment—often makes the goal of productive investment secondary to that of reducing one's tax liability. Sadly, this often leads to "gaming the system:" Investments that are not efficient for the economy as a whole and are made only to save taxes.

Although the flat tax would provide increased incentives to capital formation (as would certain other tax reform proposals), just how effective any such tax incentives could or would be is debatable. Decisions by businesses and individuals to invest are complex and poorly understood. While rates of investment do vary considerably from nation to nation, the influences upon levels of investment are unclear to say the least. With regard to narrow tax incentives for individuals to invest, skeptics point to the fact that the vast majority of funds recently invested in IRAs apparently were not withdrawn from consumer spending; rather, they were shifted from other investments lacking the IRAs' tax benefit. Although promoting capital formation via tax laws would definitely serve the national goal of economic growth, analysts cannot be certain to what extent that goal would be achieved.

Work Incentives

Because of its low and uniform marginal tax rate, any true flat tax would provide very good work incentives. However, in that respect, because of its high marginal tax rates, the existing income tax structure is poor for all but those taxpayers with the lowest taxable incomes. And rate increases would make current work incentives even poorer, compared to alternatives. Under the current structure (modified by rate increases or not) there are strong tax disincentives to a second income in the family (the so-called "marriage penalty") and there are also tax penalties against a sharp, short-term increase in income, such as is often encountered by investors, entrepreneurs and those in artistic occupations. The current tax code alleviates these problems somewhat by allowing both a two-earner tax credit and income averaging. Nevertheless, the flat tax would re-

move these preverse incentives that are built into existing law, eliminating them simply and completely.

Economic Distortions

In common with many other reform proposals, the flat-rate tax is designed to eliminate (or at least reduce) the economic distortions in current tax law. By its uniform treatment of virtually all income, a flat tax can be very successful in achieving this goal. The present income tax—both individual and corporate—produces distortions by a long and haphazard-appearing list of its tax preferences. For example, education to retain one's job is deductible, education to get a better job is not; above a certain threshold, fire and other casualty losses are deductible, but not premiums for fire insurance; and interest expenses for taxable investments are deductible, but not those for tax-exempt investments (and, in practice, it is next to impossible to distinguish between the two categories of interest expense). The differential treatment of taxable and tax-exempt interest is a particular problem leading to what is called "tax arbitrage."

Take the case of someone in the 50% marginal tax bracket (although tax arbitrage can also be effective in lower brackets). One can borrow at the rate, say, of 12% per year and, if this interest expense is claimed as deductible, the net cost to the taxpayer is only 6% a year. By investing the borrowed funds in a tax-exempt bond at 8% per year, the taxpayer is effectively receiving a 2% per year subsidy from the government (net of taxes) on the loan for this transaction. Such tax arbitrage is illegal, of course. But it is difficult to define, much less detect, for anyone who borrows and has a portfolio that mixes taxable and tax-exempt investment. How, then, can one say that any particular loan is for tax-exempt investment?

Progressivity

Although very desirable from an economic standpoint, the flat-rate tax is to be avoided from the social standpoint of ensuring that tax payments coincide with what may be judged as the taxpayer's ability to pay. Lacking a graduated (i.e., intendedly progressive) rate schedule, the progressivity of the flat tax occurs only because of its personal exemptions and zero-bracket provision. With all the versions of true flat-rate taxes now being considered, progressivity essentially vanishes at a middle-income level and tax liability thereafter becomes almost exactly proportional to taxable income.

Contrasting different income groups, the difference in tax burdens between the current and a flat tax must be judged nothing less than striking. *Table 2–3* derives from the Pechman-Scholz comparison of several income tax alternatives for calendar 1984. The flat-rate alternative they use is designed to generate the same proceeds as current law. Its personal exemptions and zero-bracket amount are the same as in current law, although the definition of taxable income ("expanded adjusted gross income"—expanded AGI) is far broader. Under current law, taxpayers with expanded AGIs of from $15,000 to $50,000 bear 49.1% of the personal income tax burden. That would rise to 57.5% under the Pechman-Scholz flat tax. Because the burden of those with lower incomes would be essentially unchanged, virtually all of this increase in middle-income burdens would go to upper-income tax relief. Those with expanded AGIs exceeding $50,000 would see their share of tax burdens decrease from 46.3% to 37.8%.

Horizontal Equity

Most flat-rate tax proposals are horizontally equitable because of the uniform tax rate and their evenhanded treatment of all the various ways in which income is earned and proceeds are spent.

Intergovernmental Considerations

Because most flat taxes would totally eliminate the deductibility of state-local taxes, and many would also eliminate the tax exemption of interest received from municipal bonds, they could have strongly adverse effects on these two key features of fiscal federalism. Flat-rate taxation would not, however, directly threaten the state-local sales tax position.

The Bradley-Gephardt Proposal

Introduced in Congress by Senator Bill Bradley (D–NJ) and Representative Richard A.

Gephardt (D–MO), this proposal entails a less radical change than a true flat-rate tax, but incorporates to one degree or another the two primary features of flat tax taxation:

> broadening the taxable income base and "flattening" the rate structure. The S 1421 and HR 3271 bills would broaden the income base by eliminating many special tax provisions while retaining in limited form several of the largest, including the deductions for home mortgage expense, charitable contributions, large medical expenses, and state and local income and property taxes. In addition ... [the bills] would retain the tax exemption of Social Security and veterans' benefits and interest on municipal bonds issued for public purposes. This bill would raise the personal exemption and zero-bracket amounts and collapse the tax brackets into four brackets, with a maximum tax rate of 30%.[7] [The bills have subsequently been modified to contain only three tax brackets.]

Because of the similarities it has with true flat taxation, we will discuss the Bradley-Gephardt proposal quickly, emphasizing the differences between it and a flat-rate tax. (The surcharge listed in *Table 2–1* makes the revenue yield comparable to that of other forms of comprehensive income taxation. The discussion of

Table 2-3

ESTIMATED DISTRIBUTION OF PERSONAL INCOME TAX BURDENS UNDER ALTERNATVE PLANS: PERCENTAGES OF TOTAL TAX LIABILITY, CALENDAR YEAR 1984

Expanded AGI ($000s)[1]	Current Law	Bradley-Gephardt Proposal	Flat-Rate Proposal
$ 0–5	0.1%	0.1%	0.0%
5–10	1.2	1.4	0.9
10–15	3.2	3.5	3.8
15–20	5.1	5.4	6.2
20–25	6.4	6.5	7.6
25–35	15.5	16.0	18.4
35–50	22.1	22.3	25.3
50–100	26.8	25.7	24.7
100–500	16.3	15.7	11.0
500–1000	1.6	1.6	1.0
$1000+	1.6	1.9	1.1
Total[2]	100.0%	100.0%	100.0%
Summary:			
$ 0–15	4.5%	5.0%	4.7%
15–50	49.1	50.2	57.5
$ 50+	46.3	44.9	37.8

[1]Expanded AGI is adjusted gross income as defined in the *Internal Revenue Code,* modified to include sick pay. All Savers interest, nonitemizers' charitable contributions, excludable dividends, interest on life insurance, excluded capital gains, all unemployment benefits, state and local bond interest, 50% of Social Security benefits, workmen's compensation, veterans' payments, tax preferences reported on the minimum tax form, 1/3 of employer-provided health insurance, and employer-provided life insurance. The 1981 IRA provision is assumed rescinded. This definition differs from that in *Table 2–2*.

[2]Includes negative expanded AGIs. Details may not add to totals because of rounding.

SOURCE: ACIR staff calculation based on Joseph A. Pechman and John Karl Scholz, "Comprehensive Income Taxation and Rate Reduction," *Tax Notes*, October 11, 1982, p. 90. Definitions and data here differ somewhat from *Table 2*.

marginal tax and similar rates below, however, assumes the rate of the current bills without a surcharge.)

Political Considerations

As a compromise between flat-rate taxation and the current income tax law, the Bradley-Gephardt proposal might be implemented (in one form or another) less slowly than any other major restructuring of the federal income tax. Because the bills include many of the major items of tax preference, they may avoid both the opposition of those who support such preferences and the hardships caused by their abrupt elimination. The base broadening should gain the support of those criticizing the complexity, potential for abuse, economic distortion, and horizontal inequity of the current tax. And, as *Table 2–3* shows, the "vertical" distribution of tax burdens (i.e., by income class) is close enough to the present one to assuage those who fear that the tax system will move in a sharply regressive direction. Robert J. Samuelson comments:

> Its political logic is that the simultaneous removal of most tax preferences—combined with lower rates—would neutralize charges of unfairness. But to enhance its prospects further, the bill retains the most popular tax preferences: deductions for mortgage interest, charitable donations and contributions to individual retirement accounts.
>
> But look again. The deductions are worth less than they seem because they apply only to income taxed at the 14% rate. They don't offset income—above $25,000 for individuals and $40,000 for couples—subject to higher rates. In 1981, about two-thirds of all tax revenue came from taxpayers with more than $30,000 of income, though they represented only 23% of all taxpayers.
>
> In effect, Bradley-Gephardt attempts to expand the tax base while also advertising itself as keeping the best tax breaks. You can put this down as cleverness or deviousness, but it is actually part of the ambiguous, messy process of trying to find a new consensus. It is a groping for the right balancing of ideas and interests, a search made more difficult by its partisan nature.[8]

Economic Considerations

Just as a flat tax would, the Bradley-Gephardt bill would eliminate many of the tax preferences (such as preferential treatment of capital gains) by which the current income tax seeks to promote capital formation. Unlike the flat tax, however Bradley-Gephardt would not add incentives for capital formation to the corporate income tax. Consequently, it would slightly weaken capital formation compared to the current system, offering far less of an incentive than do other proposals for major changes. But by lowering the marginal tax rates (though not to as low a level as a comparable flat tax), the Bradley-Gephardt bill does provide more of a work incentive than we now have. Similarly, it reduces economic distortions compared to the present law, though not as much as a flat tax would.

Progressivity

Table 2–3 shows that, under Bradley-Gephardt, tax burdens would be slightly shifted away from upper-income groups and toward middle-income groups, making the tax slightly less progressive than at present. This shift toward regressivity, however, would be relatively small—its effect would be nothing like the flat tax. In fact, tax burdens under the Bradley-Gephardt proposal would be very similar to those presently shouldered. Under Bradley-Gephardt, those with expanded AGIs of from $15,000 to $50,000 would bear 50.2% of the total tax burden—slightly higher than the current 49.1%. That proposal would somewhat lighten the burden of those at $50,000 or higher, reducing it from 46.3% to 44.9%.

Horizontal Equity

The Bradley-Gephardt proposal, while broader based than existing income taxation, nevertheless retains some of the major items of tax preference that can strongly affect tax liability. Consequently, its horizontal equity is not as great as under a flat tax.

Deductibility and Sales Taxation

From the perspective of fiscal federalism, one important tax preference *not* retained under Bradley-Gephardt is deductibility of state and local sales and personal property taxes. As mentioned above, the other major subnational taxes—income and real property—would continue to be deductible. However, they would be deductible at only a 14% marginal tax rate (the current rate for itemizers averages at 29%, which would greatly reduce their value. (It should be noted that Bradley-Gephardt would not put Washington into the "business" of sales taxation.)

Tax-Exempt Bonds

The tax exemption of general obligation (GO) bonds issued by state and local governments would be retained under Bradley-Gephardt, at least for those GO bonds judged to serve a "public purpose." (That judgment can be a difficult one to make.) But most other municipal bonds—notably revenue bonds—would lose their exemption. This could cause problems for those governments whose debt limits or fiscal difficulties lead them to issue revenue, rather than GO, bonds.

Loophole Plugging

Having raised the key issues in moving the income tax base toward being more comprehensive, we can quickly discuss the "loophole-plugging" alternative of *Table 2–1*, which would add an estimated $25 billion in FY 85. The package detailed in *Table 2–1* would, in summary, do four things: First, it would tax much of the compensation not currently taxed as ordinary income—items such as certain fringe benefits, the proceeds from unemployment insurance, and the employer's past payment of Social Security benefits—when the individual taxpayer is receiving these benefits.[9] Second, the package would limit certain tax preferences accorded to interest payments (e.g., for consumer debt) and the privileges of accelerated depreciation claimed by individuals. Third—and very important for our examination—are its effects on fiscal federalism: This package would tax as ordinary income the interest from private purpose state-local bonds and would repeal the deduction for state-local sales taxes. Fourth, the charitable deduction for nonitemizers would be limited to $100.

Politically, loophole-plugging is the most feasible of all the base-broadening alternatives we have considered—its components bearing some resemblance to the to the "revenue enhancement" measures included in the *Tax Equity and Fiscal Responsibility Act of 1982*. The loophole-plugging package would retain important items of tax preference, such as interest on virtually all owner-occupied residences, large casualty losses and large medical expenses, and charitable contributions for itemizers. Although the value of private purpose municipal bonds would decrease substantially (and their interest costs to governments would increase just as substantially), some asset values would be unchanged. For example, there would be no direct effect on home values. Another weakening of current fiscal federalism would arise from the elimination of the tax preference for state-local sales taxes.

CONSUMPTION-TYPE TAXES

Four principal reasons motivate the current interest in consumption-type taxes (also referred to as national sales or excise taxes, personal expenditures taxes, and value-added taxes—or VATs).

- In many proposals,[10] a consumption-type tax would be an additional tax, supplementing existing federal taxes.
- By the simple fact that they tax consumption, and not income devoted to savings, consumption taxes provide automatic incentives for capital formation.
- Consumption taxes can be very broadly based, addressing a major criticism of the current federal income tax and incidentally allowing large amounts of added revenue to be raised at low rates.[11] For example, the VAT we examined would raise an additional $54 billion in FY 85; the personal expenditure tax, $43–61 billion.

- In recent years, as the federal income tax has become less popular with the public, the relative popularity of sales taxation has risen dramatically.[12]

An additional reason for interest in consumption-type taxes pertains especially to value-added taxes and should be mentioned. As discussed elsewhere in this report, for some time VATs have been used successfully by European nations. But experience with them is not limited to the other side of the Atlantic: In 1976 Michigan imposed its Single Business Tax (similar to a VAT) and successfully replaced a variety of taxes collected from businesses.

Broad-Based Energy Tax

One of the perennial revenue-raising suggestions is an excise tax on energy that is broad based—that is, taxing virtually all forms of energy at the same rate—in terms of the energy contents of different fuels. It is estimated that in FY 85, such a tax would collect about $11 billion in additional revenue. Both domestic and imported energy sources would be taxed. Even this relatively broad-based excise tax would be more narrowly based than other consumption-type taxes we discuss, because only energy would be taxed. Consequently, from a purely economic standpoint, this tax would introduce somewhat of a bias against energy-intensive industries and activities. Such a "bias" would, however, accord with what might be judged the national interest in reducing energy consumption.

Value-Added Taxation

Value-added taxation is best understood by considering the economy as a series of production processes resulting in different products (i.e., goods and services) consumed by consumers.[13] Some products, such as automobiles, go through many stages of production. Others, such as haircuts, are produced more simply. But at each stage of production one can define the value that that stage adds to its products. Simply put, the value added is the sale price (value) of the products sold, minus the purchase price (also a value) of the inputs ("raw materials") used in production. The VAT may be levied at a fixed rate at each stage of production and during resale (i.e., from wholesaler to retailer and from retailer to consumer). A slight modification of this procedure would be to impose the levy at each stage of production but to quote the total amount of VATs paid in the course of the product's ultimate sale to the consumer. It is the latter alternative—namely a consumption-type VAT—that is primarily discussed in this report.

Perceptions may differ as to whether a value-added tax is a business or a personal tax. That is due, in part, to the many different ways to levy, collect and state the taxes that are explored in this report. For example, with certain exceptions European VATs typically are levied and collected at each stage of production and (Denmark to the contrary) none of the tax—not even that levied on the retail sale—is quoted separately to the consumer. It is easy to see how such a VAT may be viewed as a tax levied on businesses and not on individuals.

Remember, though, that however a tax is initially levied and collected, each tax (including all forms of VATs) is ultimately paid by individuals acting in one capacity or another—sometimes in their capacities as owners of businesses (i.e., proprietors or shareholders), sometimes as wage earners. At times a tax collected from a business is "shifted forward" to its customers by being added to the sales price. But at other times, when the market will not support a heightened price, that tax is "shifted backward," effectively reducing profits, wages, or the prices paid to the business's suppliers. As discussed elsewhere, it is generally thought that a national VAT, uniformly applied to virtually all products and all transactions, would ordinarily be shifted forward to consumers.

Ease of Implementation

Value-added taxation represents a fundamental change from virtually all other American taxes, both in principle and in practice. Even in principle, defining and measuring value added is difficult for many firms that do not produce a tangible product, such as financial institutions. In practice, a VAT requires setting up new mechanisms for tax collection, collecting from nonretail businesses that now

pay taxes only rarely.[14] Consequently, it is unlikely that a VAT can be adopted and implemented quickly.

Political Accountability

To the extent that a VAT is "hidden" from citizens—the tax is not known to them—the accountability of the levying government to its constituents is definitely poor. However, if the retail sellers are required to quote to the consumer the total of all VATs that are paid, its political accountability is good. Unlike many taxes, therefore, the visibility of a VAT may be a critical factor in its political accountability and implementation.

Capital Formation

A value-added tax can be set up to exclude from taxation capital formation expenditures incurred by businesses. One way to do this is to perform accounting on a cash basis, allowing businesses to deduct purchases of new capital stock when figuring their tax liability. Defining "capital stock" presents some difficulties and has the potential to establish some economic distortions (but to far less a degree than does the current corporate income tax). The VAT discussed here is somewhat better than other alternatives at promoting capital formation. It is far better than the current tax system.

Work Incentives

When all is said and done, a VAT taxes only consumption spending (in our version, both retail sales and the production done to prepare products for that sale) and does not tax all income that is earned. Because of this, we call VATs "consumption-type taxes." As such, value-added taxation (considered in and of itself) provides strong work incentives. That would also be true if a VAT replaced income taxation. If, however, a VAT *supplemented* (did not replace) each existing federal tax, it obviously could not reduce the work disincentives of the existing high marginal rates of personal income taxation.

Economic Distortions

In its pure form, value-added taxation would itself introduce little if any distortion into the economy. However, a practical VAT would not be as comprehensive as its "pure" cousin, and thus would introduce a few distortions. For example, excluding housing from taxation (done, very likely, to gain political acceptance) would bias the economy toward this sector and away from others, as would excluding financial institutions from taxation (done for simpler calculation of tax liability). In addition, the VAT's preferential treatment of capital formation would implicitly favor those economic sectors (e.g., manufacturing) that are capital-intensive, relative to service and other labor-intensive sectors. All in all, however, value-added taxation would be less distorting than would most other alternatives.[15]

Progressivity

Because the VAT would be levied at a fixed rate, individuals' liability under it would not be linked to their ability to pay. Moreover, by effectively taxing consumption expenditures rather than all income, value-added taxation would favor the rich, who devote a relatively small fraction of their income to consumption. On the other hand, it is likely that housing and (perhaps) food will be exempt from taxation, probably moving the tax system less in the regressive direction than would a flat-rate income tax. As noted elsewhere, a wide range of actions may be taken to move the VAT in the direction of progressivity. Those actions, however, risk economic distortions and horizontal inequities.

Horizontal Equity

By its evenhanded treatment of most products and most transactions, many VATs would treat those individuals with similar levels of consumption very similarly.

Deductibility and Tax-Exempt Bonds

Added to the current income tax, value-added taxation would neither affect the ability of individuals to deduct state-local taxes paid from their federal income tax return, nor would it affect the value of that deduction. In addition, a VAT would not influence the tax exemption of state-local bonds.

Sales Tax Headroom

If it is levied at a high rate and in a very "visible" manner, a VAT might be perceived as a type of sales tax and could strongly restrict subnational governments' sales tax "headroom"—that is, the ability of states and localities to increase the rates of their own sales taxes. Any such restriction on headroom would be most likely to occur if the total amount of VAT liability were quoted at the time of retail sale.

In value-added taxation, consequently, there is a tradeoff between political accountability and preserving sales tax headroom. In general, with a "hidden" VAT citizens are less likely to see it as adding to current levels of sales taxation.

Another variety of the value-added tax would exempt retail sales from taxation, allowing the most headroom to impose retail sales taxes but also discriminating against products such as many consumer services that are not sold separately by wholesalers to retailers.

Personal Expenditure Taxation

Unlike value-added taxation, other forms of consumption-type taxes impose levies at a single stage in the economic process. A national retail sales tax would be very similar to state and local sales taxes. It would benefit from the simplicity and evident evenhandedness of that form of tax collection, as reflected by current public opinion.

Another variety of consumption-type tax, listed in *Table 2–1*, may be called a personal expenditure tax. It would be administered similarly to the existing or a reformed income tax, with payers completing a tax return. However, instead of taxing income this replacement for the individual income tax would impose its levy on consumption (i.e., personal expenditure), defined as the difference between that year's income and that year's net addition to (or subtraction from) savings and investment.

Whereas a VAT could exclude businesses' capital formation from taxation (the tail end of the investment process) a consumption tax would exclude savings from taxation (the front end of that process). The latter would encourage the wherewithal for investment to be withdrawn from individual consumption; the former would encourage its use in the economy.

Aside from encouraging saving, an important feature of a personal expenditure tax is that, as a new tax, it could be simpler and could exploit a relatively broader base than does the existing personal income tax. But, as with an income tax, consumption taxation could suffer from the addition of tax preferences. Transferring current consumption-oriented income tax preferences to a new consumption tax or adding them at a later time would only help to resurrect existing problems of a narrow tax base, economic distortions and horizontal inequities.

Problems of Transition

A gradual method of moving toward a tax system paralleling consumption taxation is by eliminating current income tax preferences supporting consumption, while expanding those supporting saving. However, at the point of actual switchover from income to strict consumption taxation rests a potentially serious problem of transition.

During the period of transition, those who saved some of their earnings received under income taxation and then spent those savings subject to consumption taxation would be taxed twice on the amount involved. To go back to Aesop's fable, these "ants" of the economy—whose savings for their own future consumption have helped the nation in the past—would be hurt by the transition to strict consumption taxation. (Many of those "ants" are middle-aged people saving for their own retirement or anyone saving for educational expenditures.) At the same time, those who might be called the "grasshoppers"—those who have borrowed for later repayment—will reap a windfall gain from the transition. By borrowing under income taxation, the "grasshoppers" have been able to deduct interest, and, by repaying their loan under consumption taxation, reduce their liability for that tax. Prime examples of "grasshoppers" are families buying their first house, incurring indebtedness they will later repay, and buying a house they will later sell.

This problem of transition occurs because,

when the tax base is income, investment-oriented tax preferences derive from investment income or interest on borrowing for investment. When the tax base is consumption, the tax preferences derive from the principal that is invested (or, alternatively, recouped)—not from the interest either paid or received. From the standpoint of the economy as a whole, while the two ways of treating savings and investment are equivalent in an economic accounting sense, they certainly differ in their treatment of individuals' lifecycle financial decisions under one tax base or another.[16]

Ease of Implementation

Income taxation relates tax liability to the ability to pay; personal expenditure taxation adopts a fundamentally different philosophy and taxes expenditures alone. This difference is but one reason that a broad-based personal expenditure tax probably will not be adopted soon. Severe transition difficulties in moving from income to expenditure taxation would also slow adoption, as would the elimination of many cherished "loopholes." However, a modified personal expenditure tax, retaining many important items of tax preference, has been proposed by Representative Cecil Heftel (D-HA).

Political Accountability

By eliminating most items of tax preference not related to savings, a broad-based personal expenditure tax would be much simpler than the current individual income tax. As a consequence, political accountability would be high.

Capital Formation

Of all the alternatives considered, personal expenditure taxation provides the strongest incentive for capital formation. Not only does the very structure of that tax encourage investment, but by replacing income taxation, a personal expenditure tax would eliminate the hodgepodge of tax preferences that act to make investment decisions irrational from the standpoint of the economy.

Work Incentives

If broadly based, a personal expenditure tax would eliminate the high marginal income tax rates of the present—moreover, allowing tax avoidance through investment. This aspect is particularly important for those whose business, financial, or creative fortunes fluctuate sharply from year to year. In the face of such fluctuations, consumption levels change far slower than do incomes. That being the case, even a strongly progressive, but unaveraged, consumption tax would not penalize income fluctuations to the extent that an otherwise identical income tax would.

Economic Distortions

As is the case with the other economic considerations, a broad-based personal expenditure tax (substituting for the present income tax) would greatly reduce the economic distortions caused by existing tax preferences. Although the former tax might skew lifetime economic decisions toward savings and away from consumption, it would not skew saving into one channel or another.

Progressivity

Unlike comprehensive income taxation, no plan for expenditure taxation has been studied in detail. Therefore, we can only speculate about the distribution of tax burdens.[17] As a general rule, saving, as a fraction of income, increases with higher income levels. A consumption tax that is a simple, fixed percentage of consumption would therefore probably be regressive with regard to income. However, by adjusting personal exemptions, the zero-bracket amount, and especially the rate structure, a consumption tax could readily avoid, and in fact reverse, this regressive tendency. In principle, a personal expenditure tax may be made as progressive (at least with regard to consumption) as is desired.

It is reasonable to assume that any proposal for a personal expenditure tax that is politically practical would arise under the same circumstances as those that motivated the introduction of Bradley-Gephardt. That is to say, this consumption tax would probably be less progressive with regard to income than the current income tax but more progressive than a VAT with a fixed rate.

A personal expenditure tax bears on vertical equity in another way: While that tax encour-

ages everyone to accumulate wealth by encouraging saving, perhaps it will especially encourage the accumulation of additional wealth by the rich. (Proportionally they save the most.) Unless offset by heavily taxing gifts and estates, a greater concentration of society's resources in the hands of the rich might then result.

Horizontal Equity

By eliminating the welter of current tax preferences, a personal expenditure tax would tax persons in similar circumstances far more uniformly than does the current income tax it would replace. However, assuming equal incomes, this tax would weigh more heavily on those whose family needs prevented them from saving. By the standarrd of equal treatment for those at the same *income* level, a consumption tax would considerably improve horizontal equity, though not as much as a flat-rate income tax.

Deductibility

A comprehensive personal expenditure tax of the kind being discussed would most likely eliminate the deductibility of all state and local taxes in order to raise the amount of revenue estimated in *Table 2–1*. Although eliminating deductibility may be considered part of the philosophy of comprehensive taxation, it is far from a necessarry component of consumption taxation. Income claimed by state-local taxes is certainly not available for consumption and some of the citizen's tax dollars go to public investment.

Tax-Exempt Bonds

Municipal bonds, like all other investments, would be exempt from consumption taxation. But because these state-local instruments would be no more exempt than any other investment, the interest-rate discount their issuers now enjoy (compared to otherwise similar bonds now taxable) would vanish. Lacking this discount, the cost of state-local borrowing would increase substantially.

Parenthetically, it has been argued by some that recent discussion of weakening the tax-exemption privilege has already been anticipated in the capital market, tending to reduce the rate differential between taxable and tax-exempt bonds. Nevertheless, under a personal expenditure tax even the present rate differential would disappear.

Sales Tax Headroom

If a personal expenditure tax is collected as discussed—very similarly to collection of the current personal income tax—it will probably not be viewed as just another sales tax, despite the similarity of the tax bases. In that case, state-local sales tax headroom would not be reduced.

TRADEOFFS

This discussion has highlighted six tensions (often they are tradeoffs) that bedevil consideration of changes in the federal tax system. It is as if that system is suffering from multiple illnesses that no doctor can cure simultaneously. Even the treatments that are suggested are far from certain and have their own painful side effects.

Comprehensive Taxation vs. Tax Preferences for Fiscal Federalism

By their very nature, the goals of comprehensive taxation (whether of income or of consumption) militate against the goals served by establishing particular tax preferences. For our purpose, the potential threat to the deductibility of state-local taxes and to the exclusion of the interest on these governments' bonds is most important. Moreover, it is important to consider very seriously any real threat to fiscal federalism. Changes in the existing federal tax system certainly have the potential to limit state-local abilities to tax and to borrow, as well as raise the true cost to citizens (net of federal tax preferences) of state-local taxing and borrowing.

Limiting Tax Headroom

Because all taxes are ultimately paid from the same pockets, any increase in federal tax collections can make the state and local tax collectors less welcome, thus restricting the abil-

ity of subnational governments to raise the revenues they need. This potential effect (the limiting of subnational tax headroom) is the strongest when a new federal tax is viewed as levied on the same tax base as existing state-local taxes—notably state-local sales taxes. That would certainly be the case for a federal retail sales tax; perhaps for a value-added tax if judged as a tax on consumers rather than businesses; and probably not for a personal consumption tax whose form of payment parallels the existing federal income tax on individuals.

Horizontal vs. Vertical Equity

Judging by the range of proposed alternatives we have discussed, the goals of horizontal and vertical equity seem to militate against each other. There are several proposals (a flat-rate income tax, a value-added tax, and a personal expenditure tax) that achieved horizontal equity by levying similar taxes on similar persons, organizations and transactions. But because these proposals also make the federal tax system less progressive, they are not conducive to vertical equity. In many cases, adjustment of the proposals' detailed structures can increase progressivity. Generally, however, this is done at the risk of added complexity and often at the cost of losing some of the movement toward greater horizontal equity.

Serving Economic Goals

Three national economic goals for the federal tax system (promoting capital formation, providing work incentives, and reducing tax-induced economic distortions) are best served by taxes that are very different from those at present. Although reformed income and consumption-type taxation can provide better economic incentives than the current taxes, it cannot be conclusively proven that any such improved incentives will significantly strengthen the economy.

Problems of Transition

Any fundamental changes in the federal tax system will not only have to overcome the objections of those who will later lose current advantages; they will also have to wrestle with the related and equally formidable problems of transition.

Transition difficulties include confusion, windfall gains and unexpected losses (the last, notably, includes the consumption-based taxation of spending from savings that had already been taxed when the income was received). In addition, the value of any asset losing preferential tax treatment (such as residences or tax-exempt bonds) will be lowered. (If potential bond buyers simply *expect* the loss or restriction of tax-exemption, they will demand higher interest rates.) While there are ways to ease transition difficulties, they inevitably add complexity, delay the benefits of the new system, or both.

The Compromise of Rate Increases

Increasing the rates of existing federal taxes is an attractive method of avoiding the practical difficulties of fundamental change in the tax system. However, in helping to reduce the federal budget deficit, rate increases may miss the opportunity for tax reform to serve other important national goals. But perhaps explicitly legislated rate increases (such as an income tax surcharge) will make both politicians and the public sit up and take notice of any call from Washington for additional revenue. By highlighting revenue demands and leaving intact current weaknesses in the tax system, enactment of a surcharge can conceivably spur fundamental tax restructuring—if that is what the nation really wants.

FINDINGS

Finding 1

If, in an attempt to reduce deficits, the Congress decides to increase federal revenues, it must choose among raising existing tax rates, plugging tax loopholes, new or restructured taxes, or perhaps a combination of these. None of these alternatives is easy or uncontroversial.

Increasing taxes in the face of taxpayer resistance is never easy and it is especially hard

to do in order to reduce deficits. Revenue increases for deficit reduction provide the pain of increased tax payments unmitigated by the pleasure of expanded public services. While concern for serious deficit problems may well support tax increases, the path to strengthened federal revenues is far from certain.

Although there is widespread agreement on the proposition that the present federal tax system is unfair, distorts economic decisions, and discourages work effort, there is no consensus on how it should be restructured. Tax reformers now travel in three different directions. One group seeks to reduce tax inequities, economic distortions and work disincentives by broadening the base of the federal income tax and by dramatically lowering marginal tax rates. The second group would replace the personal income tax with a personal expenditure tax—an approach under which individuals would be taxed on the goods and services they actually consume, rather than on what they earn. A third group favors taxing transactions through either a value-added tax or its close relative, a national retail sales tax.

Alternatively, although raising particular tax rates and plugging selected loopholes avoids the far-reaching difficulties of major tax reform, it may also lose the opportunity for fundamental improvement in the tax system.

Finding 2

If—by whatever means—the Congress increases income tax rates, this would not weaken or destroy three key features of fiscal federalism: (1) the deductibility of state-local taxes, (2) the tax-exempt status of state-local bonds, and (3) state-local control of general sales taxation. On the contrary, raising federal income tax rates enhances the tax-reducing value of both state-local tax deductions and also of exempting the interest received from state-local bonds.

A 10% surcharge on individual income tax liability, for example, would raise the average itemizer's marginal tax rate from 29% to about 32%. Of every dollar paid in state-local taxes, the itemizer's liability (net of federal taxes) would decrease 3¢, to 68¢. The value of interest exemption for state-local bonds would be enhanced to exactly the same degree.

However, whether done overtly (through a surcharge) or covertly (by repealing indexation), increases in income-tax rates only exacerbate the tax-fairness and economic-growth problems of the income tax. Higher marginal tax rates discourage risk-taking and weaken work incentives. The higher the tax rate, the greater the incentive for taxpayers to resort to tax shelters that are unproductive for the economy as a whole, compared to other investments that do not enjoy preferential tax treatment.

Finding 3

Substantial restructuring of the federal tax system might threaten key features of fiscal federalism. Ill-considered Congressional action could weaken the practical ability of states and localities to tax and borrow, unbalancing the federal system. The federal concern for revenue adequacy, economic growth, and tax equity should be balanced against state-local concerns for revenue adequacy, economic viability, and fiscal flexibility.

If concern for economic growth causes Congress to adopt a national sales tax, this federal move into the consumer-tax field could make it more difficult for state and local governments to raise their own sales taxes. If—in the name of increasing revenues, comprehensive taxation, or plugging loopholes—Congress sharply curtails either state-local tax deductibility or the tax exemption of state-local bonds, such actions could make it more difficult for these governments to raise taxes and more costly for them to borrow.

FOOTNOTES

[1]CBO, *Reducing the Deficit: Spending and Revenue Options*, Washington, DC, U.S. Government Printing Office, February 1984. Except when indicated otherwise, this report is the source of the revenue estimates appearing in *Table 1*. "OMB" in *Table 2-1* refers to figures from the U.S. Office of Management and Budget, *Budget of the United States Government, FY 85, Special Analysis G*, Washington, DC, U.S. Government Printing Office, February 1984.

[2]There is an abundance of definitions for "progressivity." Ours looks at different income groups' share of the total tax burden.

[3]In their book, *Low Tax, Simple Tax, Flat Tax*, New

York, McGraw Hill Company, 1983. However, by excluding from individual taxation all interest, dividends and capital gains received, the Hall-Rabushka, flat-rate income tax is more closely akin to a tax on consumption (to be discussed) than one on income.

[4]Other flat tax proposals have been put before Congress by Sen. Jesse Helms (R–NC) and Rep. Ron Paul (R–TX), and by Reps. Philip M. Crane (R–IL), James V. Hansen (R–UT), and Leon E. Panetta (D–CA). (See p. 951 of Gregg A. Eisenwein, "An Overview of the Issues Concerning a Flat-Rate Income Tax," *Tax Notes*, June 21, 1982.)

[5]Under the current (calendar '84) tax code, marginal tax rates rise with taxable income from 11% to 50%. For example, all married persons filing jointly, with a 1984 taxable income exceeding $20,200, are subject to a marginal tax rate of 22% or higher. The flat-rate tax discussed is that examined by Joseph A. Pechman and John Karl Scholz, "Comprehensive Income Taxation and Rate Reduction," *Tax Notes*, June 21, 1982, pp. 83–93.

[6]CBO, *Revising the Individual Income Tax*, Washington, DC, U.S. Government Printing Office, July 1983, p. 138.

[7]CBO, *Revising the Individual Income Tax, op. cit.*, p. 136.

[8]Robert J. Samuelson, "The Tax Game," *National Journal*, November 19, 1983, p. 2433.

[9]Up to one-half of the social security and railroad retirement benefits are included in taxable income when the combined income tax exceeds $25,000 for single taxpayers or $32,000 for married couples filing jointly. "Combined income" equals AGI plus otherwise tax-exempt interest income and one-half of the benefits above the state threshold.

[10]Not, however, the personal expenditure tax in *Table 1*, which would be added to the current income tax on individuals.

[11]To the extent, however, that certain types of products (e.g., services rather than goods) and certain types of transactions (e.g., sales to charitable organizations) are excluded from taxation, not only is the tax base reduced but the possibility of introducing economic distortions arises.

[12]See, for example, Advisory Commission on Intergovernmental Relations, *Changing Public Attitudes on Governments and Taxes*, S–13, Washington, DC, U.S. Government Printing Office, 1984.

[13]Products not consumed by individuals are either used in further processing (so they would be taxed later); exported (and would ordinarily not be taxed); consumed by governments and other non-production organizations, such as a charitable groups (in the latter case the products might or might not be taxed—we assume not); or devoted to capital formation. Most consumption-type value-added taxes would either exempt capital purchases from taxation altogether or accord such transactions favorable tax treatment. We assume that capital purchases would be "expensed" when made, but then, as they age, their annual depreciation would be added to that year's tax base. On net, this tax treatment provides strong incentives for capital formation.

[14]Once procedures are set up, however, VATs are generally easy to collect and compliance with the law is high. Each business is strongly motivated to document its payments to suppliers, so as not to increase its own tax liability. That documentation, in turn, may be used to verify suppliers' account of their own sales. To the extent that a VAT taxes the whole national economy it provides information on each "intermediate transaction" from both buyer and seller—information like that of double entry bookkeeping. (For instance, retail sales are not intermediate transactions. Because they occur at the end of the production process no data are available from the buyer, i.e., the consumer.) Experience with VAT compliance has been usually good in Europe, where tax evasion is generally more of a problem than it is in this country.

[15]The VAT is one of the most stable of all nonproperty taxes, its proceeds varying little with recession or recovery. That is because the business cycle influences individuals' and firms' investment levels (often excluded from value added taxation) far more than it affects everyday levels of production and consumption.

[16]The consumption tax may increase the tendency for accumulated wealth to be especially concentrated among the very rich. See the later discussion in the text, under "progressivity." For further discussion of the transition to a consumption tax, see CBO, *Revising the Individual Income Tax, op. cit.*, pp. 123–126.

[17]In its *Revising the Individual Income Tax* (*op. cit.*, pp. 127–129), however, the Congressional Budget Office does sketch out characteristics of a consumption tax designed to yield the same revenue and impose roughly the same burden by income class as the 1984 income tax. This is an important first step.

Federal Income Tax Deductibility of State and Local Taxes: What Are Its Effects? Should It be Modified or Eliminated?

INTRODUCTION

The deductibility of state and local taxes from the federal individual income tax has been a part of the U.S. tax system since the federal income tax was established in 1913. There has been very little change in this basic provision of the income tax law since then. While some less important taxes are no longer deductible (state excise taxes, for example), four major types of state and local taxes continue to be allowed as deductions: individual income, real estate, personal property and general sales taxes.

Despite its long history, however, there are reasons to expect a major attack on the deductibility provision in the next few years. The most imminent threat arises from the federal deficit. The historically high deficits that are projected through the end of the decade have created a sense of urgency that may be translated into revenue raising action. The approximately $30 billion per year that could be gained from deductibility's elimination may yet prove to be a strong temptation to would-be deficit reducers.

The deductibility provision would also be curtailed, if not eliminated, if supporters of the flat tax movement have their way. A true flat tax would eliminate all deductions, including that for state and local taxes. A modified flat tax, such as the Bradley-Gephardt proposal,

would eliminate some tax deductions and reduce the value of all others.

A less imminent threat hinges on the possibility that the major intergovernmental effect of deductibility—the provision of a general stimulus to state and local spending—may yet be reexamined within the context of the current political climate. This stimulus to spending seems at odds with the post-Proposition 13 world in which 19 states have state-level and 41 states have local-level tax or expenditure limits. If federal legislators can simultaneously reduce the deficit—moving more toward a flat tax—and serve the wishes of voters who have been supportive of state-local tax and spending limits, the deductibility provision will be triply threatened.

The following sections have three major aims: first, to provide necessary background information on the deductibility provision—such as on its rationale and its mechanics; second, to examine the effects of deductibility; and third, to examine several alternative proposals for modifying (or even eliminating) deductibility. All major findings are summarized in the final section.

Two Alternative Rationales for Deductibility

Personal deductions[1] of state and local taxes are supported by two separate arguments: some tax experts argue that deductibility is necessary in order that taxable income more closely reflect the individual taxpayer's ability to pay; some support deductibility as an indirect subsidy to state and local governments.[2]

ABILITY TO PAY

The federal income tax is generally considered a tax levied according to ability to pay: Individuals with equal abilities to pay should be paying equal taxes and individuals with greater abilities to pay should pay higher taxes than those for whom it is more difficult. The clear purpose of a number of allowable deductions is to make taxable income a more equitable measure of ability to pay taxes. The deductions for medical expenses and uninsured casualty losses clearly fall into this category. Some tax experts argue that individual payments of state and local taxes must also be subtracted from income in order to get a true measure of ability to pay federal taxes. Presumably they view state and local taxes as a mandatory expense for which an individual receives no direct, equivalent benefit. Such an expense seems to qualify for a deduction although ordinary expenditures on private goods and services do not.

Others are skeptical about the ability-to-pay rationale for deductibility. They ask why property tax payments that finance local pools and tennis courts are allowable deductions, whereas homeowner association fees for the same facilities are not. They further argue that state and local taxes should not be deductible to the extent that voters have freely chosen to increase the taxes they pay in order to receive government benefits that are very much like benefits received from private goods.

An evaluation of the ability-to-pay argument rests crucially on the view taken of state and local government. If state and local taxes are viewed as "prices" paid for government goods and services that taxpayer-voters desire, it follows that the ability-to-pay argument is badly weakened. At the other end of the spectrum, if state and local taxes are viewed as a mandatory payment, in return for no clearly defined governmental benefits, one must be far more sympathetic to the ability-to-pay argument.

The argument sometimes voiced, that an individual should not be required to "pay a tax on a tax," is really a variant of the ability to pay argument. The federal government is not consistent in its application of this principle. Although most state and local tax payments are not taxed, the federal income tax deduction was abolished in 1917 and deductibility of federal excise taxes in 1943. Moreover, the employee share of the payroll tax earmarked for Social Security has never been an allowable deduction.

SUBSIDY TO STATE AND LOCAL GOVERNMENTS

Deductibility of state and local taxes can also be viewed as an indirect subsidy to state and local governments. Taxpayers who itemize receive a reduction in their federal taxes for every dollar of state and local taxes they pay. State and local governments are likely to find revenue raising easier because their taxpayers

can pass on some of the cost to taxpayers nationwide through the deductibility provision. But if provision of a subsidy is the primary reason for deductibility of state and local taxes, its effectiveness should be compared with other available subsidies, such as intergovernmental grants and exclusion of interest on state and local bonds. Furthermore, an effort should be made to increase reliance on the more efficient forms of subsidy. The manner in which the deductibility provision acts as a subsidy to state-local governments or, more generally, stimulates state-local spending, will be examined in depth below.

The Mechanics of Deductibility: How Both Income and Prices of State-Local Services are Changed for Itemizing Taxpayers

Deductibility of state and local taxes has a twofold effect on the budget of the individual taxpayer who: (1) pays less in total taxes (or retains more income) because of deductibility, and (2) faces a reduced "price" for most state and local government goods and services.[3]

The reduction in price per dollar of state and local services is proportional to the voter's federal marginal tax rate. For example, a taxpayer in the 14% marginal tax bracket reduces federal income tax liability by 14¢ for every extra dollar of state and local taxes deducted. This brings the net price of one extra dollar of state and local services down to 86¢.

Since taxpayers who do not itemize gain no tax benefits from deductibility, both the proportion of taxpayers itemizing and their relevant marginal tax rates must be taken into account in calculating the average net price of state and local services for a particular group of taxpayers. In 1980, only 8.8% of those taxpayers with adjusted gross income of less than $10,000 itemized their taxes, while more than 90% of taxpayers reporting over $50,000 AGI were itemizers. (*Table 3–1*, Column 2.)

In 1980, the average price per dollar of state-local services fell from a dollar for the lowest income level to 87¢ for taxpayers with median family income to 31¢ for taxpayers in the highest tax bracket.[4] (*Table 3–1*, Column 3.) Because the *Economic Recovery Tax Act of 1981* (ERTA) reduced the top marginal tax rate from 70% to 50%, high-income taxpayers no longer pay net prices of less than 50¢ on a dollar.

The federal tax reduction accruing to an itemizing taxpayer from the deductibility provision (the income effect) can be calculated by multiplying total state-local taxes deducted by the relevant marginal tax bracket.[5] Therefore, $1,000 of tax deductions for the taxpayer in the 14% marginal tax bracket translates into a federal tax saving of $140, whereas for the taxpayer in the 50% marginal tax bracket the tax deduction totals $500.

Distribution of the Benefits of Deductibility

Deductibility will have a greater effect in decreasing the federal tax burden of a particular group of taxpayers the greater:

1) the amount of state-local taxes they pay which are allowable deductions from the federal income tax,
2) the individuals' marginal tax rates, and
3) the proportion of the group that itemizes deductions.

BY INCOME LEVEL

The aggregrate effect of deductibility is to reduce the progressivity of the federal income tax. In other words, the benefits of the deductibility provision accrue more than proportionately to higher-income taxpayers.

For income classes above $18,000, state-local taxes deducted as a percentage of itemizers' AGI remains approximately constant, deviating only slightly from a 7.4% average. (*Table 3–2*, Column 1.)[6] Therefore, factor 1 (above) does not contribute to deductibility's regressive impact.

For taxpayers with AGI above $18,000, deductibility will reduce taxes paid in proportion to their marginal tax rate. Since such rates rise with income, factor 2 produces an impact favoring higher income taxpayers. Finally, since the proportion of taxpayers itemizing state-local taxes increases from 1.8 to 99.1 as one progresses up the income scale (an application of factor 3), this regressive effect is aggravated once nonitemizers are taken into account. (See *Table 3–1*, Column 1 and Column 2, for the relevant statistics.)

Table 3-1

THE EFFECTIVE PRICE OF STATE AND LOCAL SERVICES, BY AGI CLASS, 1980

Size of AGI ($1,000s)	(1) Weighted Average Marginal Tax Rate for Itemizers[a]	(2) Percent of All Returns Itemizing State-Local Taxes	(3) Average Price of State-Local Services[b]
Total	36%	30.6%	.89
Under $5	0	1.8	$1.00
5–10	17	7.0	.99
10–15	19	17.9	.97
15–20	22	32.2	.93
20–25	26	50.8	.87
25–30	29	65.0	.81
30–50	33	81.6	.73
50–100	50	93.3	.53
100–200	60	96.0	.42
200–500	70	97.9	.31
500–1,000	70	98.8	.31
$1,000+	70	99.1	.31

[a]To get column (1) Noto and Zimmerman weighted marginal tax rates for itemizing joint and single returns by the proportion of joint and single returns by AGI class for all US. taxpayers.
[b]Column (3) was calculated as follows:
$P = (1-m)i + (1-i)$
where P = average price of state-local services financed by taxes deductible from federal personal income tax (column 3)
m = weighted average marginal tax rate for itemizers (column 1)
i = proportion of returns itemizing state-local taxes (column 2).
It was assumed that the price per additional dollar of state-local services for the nonitemizer was $1. The average price in column (3) is per taxpaying unit, which can be a single person or a married couple.
SOURCE: Columns (1) and (2) were taken from Nonna A. Noto and Dennis Zimmerman, "Limiting State-Local Tax Deductibility in Exchange for Increased General Revenue Sharing: An Analysis of the Economic Effects," Senate Committee Print 98–77, Committee on Government Affairs, U.S. Congress, October 1983, p. 38. Column (3) was calculated from the other two columns by ACIR staff.

BY STATE

Some think of the federal taxes saved by individual taxpayers in each state due to deductibility of state and local taxes from the federal individual income tax as an indirect subsidy to state and local governments.[7] The amount of federal aid to state and local governments in the form of grants in 1981 was $95 billion, the implicit subsidy through tax deductibility was $29 billion, and the implicit subsidy through the exclusion of bond interest was $10 billion, (*Table 3–3*.) Tax deductibility is a significant part (22%) of all aid—explicit and implicit—to state and local governments. From 1981 to 1985, direct grants-in-aid to state and local governments and indirect aid from the deductibility provision grew at modest rates (7.8 and 9.5%, respectively). Only the tax expenditure from exclusion of interest on state-local bonds grew rapidly—130% over the four-year period.

On a nationwide basis, more than half of the benefits (53%) from deductibility are gained from deductibility of income taxes, while personal and real-estate property taxes are next in importance (33% of the total), and the benefits from sales tax deduction are the least (15% of the total). However, for individual states the relative importance of deductibility of each of these taxes can be very different. For example, Texans receive less than 5% of their tax deduc-

Table 3–2

STATE-LOCAL TAX DEDUCTIONS: RELATIONSHIP TO ADJUSTED GROSS INCOME BY AGI CLASS, 1980

Size of AGI ($1,000s)	(1) Total State-Local Taxes Deducted as A Percentage of Itemizers' AGI[a]	(2) State and Local Income Taxes Deducted As a Percentage of Itemizers' AGI	(3) General Sales Taxes Deducted as a Percentage of Itemizers' AGI
Total	7.5%	4.3%	1.3%
Under $6	16.5	5.9	4.1
6–9	12.0	3.3	2.4
9–12	9.5	3.1	2.2
12–15	8.7	3.2	2.0
15–18	8.1	3.5	1.7
18–22	7.6	3.6	1.6
22–26	7.6	3.8	1.5
26–30	7.3	3.9	1.4
30–35	7.3	4.0	1.4
35–40	7.3	4.1	1.3
40–50	7.4	4.4	1.2
50–75	7.5	4.8	1.1
75–100	7.6	5.3	0.9
$100+	7.3	6.2	0.6

[a]In column 1, "itemizers' AGI" means "AGI of those itemizing state-local taxes." In column 2, "itemizers' AGI" means "AGI of those itemizing state and local income taxes." In column 3 "itemizers' AGI" mans "AGI of those itemizing general sales taxes."

SOURCE: ACIR staff computations using unpublished 1980 IRS Individual Income Tax Model file.

tions from income taxes and 46% of the tax deductions for Louisiana residents come from sales taxes.[8]

The deductibility benefits accruing to itemizing taxpayers are divided unevenly among the states. (*Table 3–4*, Column 1.) Itemizing taxpayers in Washington, DC, (which the ACIR treats as a state for statistical purposes) receive the maximum benefits—on average $917 in federal tax savings per year (as of 1980). In contrast, itemizers in Wyoming received less than one-fifth of the tax savings (an average of $162 in 1980).

Those states in which taxpayers receive highest tax savings from deductibility are California, Delaware, Maryland, Massachusetts, New York and Washington, DC. Taxpayers in Florida, Louisiana, Nevada, South Dakota, Tennessee, Texas, Washington and Wyoming gained the least from deducting their state-local taxes from the federal income tax.[9] Upper-income taxpayers residing in high-spending states with relatively progressive tax structures, such as New York, gain the most from deductibility. Upper-income taxpayers living in states that have modest tastes for government services and which rely on relatively regressive tax systems, such as Texas, benefit much less.[10]

Deductibility's Effect on the Level of State-Local Spending

Deductibility stimulates state and local spending in three ways:

1. Itemizing taxpayers are more likely to support or tolerate higher spending than they otherwise would in their role as state and local voters because of deductibility's effect in increasing their income and reducing their net prices for state and local services.

Table 3-3

GRANTS AND TAX EXPENDITURES AIDING STATE AND LOCAL GOVERNMENTS, FY 81 AND FY 85

(billions of dollars)

	FY 81 (actual)	FY 85 (estimate)	Percent Change FY 81–85
TAX EXPENDITURES[a]			
Deductibility of Property Taxes on Owner-Occupied Homes	$ 9.3	$ 9.7	4.3%
Deductibility of Other Nonbusiness State-Local Taxes[b]	19.3	21.6	12.0
Total, Deductibility of State-Local Nonbusiness Taxes	28.6	31.3	9.5
Total, Exclusion of Interest on State-Local Bonds	10.0	23.0	130.0
GRANTS			
Total, Grants-in-Aid	94.8	102.2	7.8

[a]These are outlay equivalent tax expenditure estimates which are adjusted for any additional resources that would be required if aid to state-local governments were administered as a direct outlay instead of through the tax system. These tax expenditure estimates are more directly comparable to data on grant spending than the revenue loss tax expenditure estimates.

[b]Deductibility of state and local business taxes is not considered a tax expenditure since these taxes are considered a cost of doing business and therefore should be deducted to arrive at the appropriate tax base, net income.

SOURCE: ACIR staff computations based on data from U.S. Office of Management and Budget, *Special Analyses, Budget of the United States Government*, Fiscal Years 1983 and 1985. (Washington, DC: U.S. Government Printing Office, 1982 and 1984.) Grant data from 1985 *Special Analyses*, Table H-9, p. H-19, and 1983 *Special Analyses*, Table H-8, p. H-21. Tax Expenditure data calculated from entries in Table G-1, pp. G-37–G-42, 1985 *Special Analyses* and from entries in Table G-1, pp. 28–30, 1983 *Special Analyses*, by ACIR staff.

2. Higher spending levels are encouraged by making high-spending and high-taxing jurisdictions more attractive relative to low-spending and low-taxing jurisdictions. Depending upon how taxpayers value the expenditures funded by state and local taxes, deductibility either reduces the incentive for outmigration or encourages immigration into relatively high-spending and high-taxing jurisdictions. (In this case taxpayers are "voting with their feet" rather than at the ballot box.)

3. Elected officials may be more apt to propose tax increases because they realize that the net additional tax payment is less than the actual proposed increase for many of their citizens due to the deductibility provision. At the same time, these officials are likely to worry less about maintaining higher tax rates compared to other jurisdictions because of deductibility's muting effect on interjurisdictional tax differentials.

THROUGH ITS EFFECT ON VOTERS' BUDGETS

If the assumption is made that elected officials respond directly to the wishes of voters, we must ask two questions in order to find the effects of deductibility on the amount of state and local spending: (1) How does deductibility affect the desires of voters for governmental goods and services, and (2) does deductibility cause voters to desire higher spending levels, and if so how much higher?

As explained above in the discussion of the mechanics of deductibility, this provision of the tax law has the effect both of decreasing the net price for government goods and services that the itemizing taxpayer must pay and of increasing the disposable income that the taxpayer retains. The increased income and the reduced price can be expected to increase the amount of state and local government services desired by individuals in their role as state and local voters.

Table 3–4

FEDERAL TAX SAVINGS FROM DEDUCTIBILITY PROVISION, PER TAXPAYER,[a] BY STATE, 1980

	(1) Deductibility of All State and Local Taxes	(2) Deductibility of Sales Taxes Only
Alabama	$273.64	$ 74.41
Alaska	326.92	42.24
Arizona	322.68	75.65
Arkansas	312.36	45.45
California	591.37	89.45
Colorado	400.23	69.35
Connecticut	528.39	96.70
Delaware	614.45	7.68
Washington, DC	916.74	75.47
Florida	226.91	58.76
Georgia	392.94	60.20
Hawaii	564.14	83.88
Idaho	345.96	40.59
Illinois	432.31	88.44
Indiana	271.83	58.89
Iowa	413.47	43.03
Kansas	378.73	54.00
Kentucky	371.21	57.94
Louisiana	192.01	82.36
Maine	439.04	56.22
Maryland	640.19	67.89
Massachusetts	656.90	47.62
Michigan	553.47	59.02
Minnesota	584.38	45.21
Mississippi	277.23	76.56
Missouri	342.54	66.21
Montana	315.96	3.26
Nebraska	445.44	60.42
Nevada	192.89	49.02
New Hampshire	348.78	7.49
New Jersey	569.05	66.05
New Mexico	295.62	73.80
New York	892.12	105.01
North Carolina	417.11	50.93
North Dakota	251.24	37.71
Ohio	346.53	51.70
Oklahoma	335.65	57.37
Oregon	461.75	2.16
Pennsylvania	445.33	58.74
Rhode Island	547.65	60.89
South Carolina	341.30	54.48
South Dakota	230.15	72.00
Tennessee	203.03	89.16
Texas	232.78	75.57
Utah	329.37	62.41
Vermont	521.44	33.16
Virginia	477.91	58.60
Washington	234.82	85.68
West Virginia	344.22	50.32
Wisconsin	573.05	49.95
Wyoming	161.71	73.46
U.S. Average[b]	$410.21	$ 59.07

[a]Number of taxpayers was calculated by adding number of single returns itemizing state-local taxes to twice the number of joint returns itemizing state-local taxes. In 1980, 31% of all returns itemized state-local taxes. 96% of the returns itemizing some state-local tax itemized sales tax deductions. (Internal Revenue Service, *Statistics of Income—1980, Individual Income Tax Returns*, Washington, DC: U.S. Government Printing Office, 1982, Publication 79 (9–82), pp. 36, 56.)

[b]U.S. total excludes Puerto Rico and citizens abroad.

SOURCE: ACIR staff computations using unpublished 1980 IRS Individual Income Tax Model file.

Table 3-5

NET PRICE OF STATE AND LOCAL GOVERNMENT GOODS FACED BY U.S. TAXPAYERS, BY STATE

State	(1) Estimated Average Marginal Tax Rate of Itemizers[a]	(2) Estimated Proportion Of Taxpayers Who Itemize[b]	(3) Average Price for State-Local Services Faced By Taxpayers[c]
Alabama	.28	.37	.90
Alaska	.36	.40	.86
Arizona	.27	.40	.89
Arkansas	.27	.27	.93
California	.28	.45	.87
Colorado	.28	.49	.86
Connecticut	.32	.37	.88
Delaware	.31	.40	.88
Washington, DC	.32	.39	.88
Florida	.29	.30	.91
Georgia	.29	.34	.90
Hawaii	.30	.44	.87
Idaho	.26	.37	.90
Illinois	.31	.39	.88
Indiana	.29	.30	.91
Iowa	.29	.31	.91
Kansas	.29	.33	.90
Kentucky	.29	.32	.91
Louisiana	.29	.29	.92
Maine	.28	.25	.93
Maryland	.31	.46	.86
Massachusetts	.29	.42	.88
Michigan	.30	.46	.86
Minnesota	.29	.44	.87
Mississippi	.28	.28	.92
Missouri	.29	.33	.90

Montana	.27	.36	.90
Nebraska	.28	.31	.91
Nevada	.27	.37	.90
New Hampshire	.29	.28	.92
New Jersey	.31	.39	.88
New Mexico	.28	.30	.92
New York	.30	.45	.87
North Carolina	.28	.31	.91
North Dakota	.28	.26	.93
Ohio	.30	.34	.90
Oklahoma	.29	.34	.90
Oregon	.28	.43	.88
Pennsylvania	.29	.32	.91
Rhode Island	.29	.33	.90
South Carolina	.27	.36	.90
South Dakota	.26	.20	.95
Tennessee	.29	.25	.93
Texas	.32	.27	.91
Utah	.25	.50	.88
Vermont	.29	.26	.92
Virginia	.30	.39	.88
Washington	.30	.36	.89
West Virginia	.31	.19	.94
Wisconsin	.28	.42	.88
Wyoming	.30	.32	.90
U.S. Average	.29	.37	.89

[a]Average marginal tax rate for individual taxpayers by state was calculated using data from unpublished 1980 IRS Individual Income Tax Model file. This file records number of married and single itemizing returns by marginal tax rate by state. Each married return was assumed to represent two taxpayers and each single return was assumed to represent one taxpayer. The heavier weighting of married returns in the calculation in this table accounts for why the U.S. average marginal tax rate here is lower than the Noto-Zimmerman estimate in *Table 3–1*.

[b]Source: Albert J. Davis, "Closing the National Deficit with Higher Taxes—A Federal Perspective," *Proceedings of the Seventy-Sixth Annual Conference on Taxation*, National Tax Association—Tax Institute of America, Columbus, OH, 1984.

[c]Column (3) was calculated in the same manner as column (3) of *Table 3–1*. In this table, however, the calculated price is per individual taxpayer.

SOURCE: ACIR staff computations.

Table 3–6

A COMPARISON OF STATE-LOCAL TAX BURDENS BEFORE AND AFTER DEDUCTIBILITY, FOR A COUPLE WITH $100,000 AGI, 1982[a]

City and State By Region	Total State-Local Taxes *Before* Federal Deductibility	Total State-Local Taxes *After* Federal Deductibility
New England	**Range: 6,317**	**Range: 3,222**
Bridgeport, CT	$ 3,710	$1,892
Portland, ME	9,602	4,897
Boston, MA	8,990	4,585
Manchester, NH	3,285	1,675
Providence, RI	9,459	4,824
Burlington, VT	8,515	4,343
Mideast	**Range: 5,889**	**Range: 3,003**
Wilmington, DE	8,900	4,539
Washington, DC	9,241	4,713
Baltimore, MD	8,898	4,538
Newark, NJ	6,290	3,208
New York, NY	12,179	6,211
Philadelphia, PA	9,370	4,779
Great Lakes	**Range: 8,469**	**Range: 4,319**
Chicago, IL	5,081	2,591
Indianapolis, IN	4,262	2,174
Detroit, MI	12,731	6,493
Cleveland, OH	7,566	3,859
Milwaukee, WI	10,565	5,388
Plains	**Range: 5,847**	**Range: 2,982**
Des Moines, IA	7,679	3,916
Wichita, KS	4,831	2,464
Minneapolis, MN	9,824	5,010
St. Louis, MO	5,267	2,686
Omaha, NE	7,875	4,016
Fargo, ND	3,977	2,028
Sioux Falls, SD		

Southeast	**Range: 4,881**	**Range: 2,489**
Birmingham, AL	4,582	2,337
Little Rock, AR	6,296	3,211
Jacksonville, FL	1,998	1,019
Atlanta, GA	6,557	3,344
Louisville, KY	6,662	3,398
New Orleans, LA	3,233	1,649
Jackson, MS	4,083	2,082
Charlotte, NC	6,879	3,508
Columbia, SC	6,596	3,364
Memphis, TN	3,588	1,830
Norfolk, VA	6,228	3,176
Charleston, WV	5,460	2,785
Southwest	**Range: 2,180**	**Range: 1,112**
Phoenix, AZ	4,870	2,484
Albuquerque, NM	4,455	2,272
Oklahoma City, OK	5,260	2,683
Houston, TX	3,080	1,571
Rocky Mountain	**Range: 6,148**	**Range: 3,135**
Denver, CO	4,671	2,382
Boise, ID	7,293	3,719
Billings, MT	5,230	2,667
Salt Lake City, UT	5,757	2,936
Casper, WY	1,145	584
Far West	**Range: 8,772**	**Range: 4,474**
Los Angeles, CA	7,954	4,057
Las Vegas, NV	1,232	628
Portland, OR	9,668	4,931
Seattle, WA	2,116	1,079
Anchorage, AK	896	457
Honolulu, HI	8,106	4,134
U.S. Median	$ 6,228	$3,176

[a]The state-local taxes included are the state individual income tax, local individual income tax, state general sales tax, local general sales tax and local property tax. State-local tax burdens are calculated for hypothetical married couples with two dependents. Reasonable assumptions were made with regard to adjustments to income, nontax itemized deductions and property values. In each case the applicable federal marginal income tax rate was 49%. For further information on assumptions made to calculate state-local tax burdens contact Michael Lawson, ACIR, for a copy of March 1984, working paper on tax burdens for families located in the largest city in each state.
SOURCE: ACIR staff computations.

However, not all voters in a given state or locality will be itemizers. The estimated proportion of taxpayers who itemize their taxes ranges from a high of 50% in Utah to a low of 19% in West Virginia, with a U.S. average of 37%. (*Table 3–5*, Column 2.) These statistics raise the question of how influential itemizing voters are in the state and local political arena. If the majority of voters in a state or locality are nonitemizers, perhaps deductibility will produce no stimulus to public spending in that jurisdiction.

On the other hand, because high-income taxpayers are more likely to vote than those with low income—and we know that the probability of itemizing increases rapidly as one goes up the income scale (*Table 3–1*, Column 2)—it is possible that the majority of voters in many jurisdictions do itemize their state and local taxes. For example, a Massachusetts survey indicated that 56% of that state's household heads who voted in 1980 itemized deductions on their federal taxes.[11]

In order to estimate the magnitude of deductibility's spending stimulus, it first is necessary to find the average price paid for additional state and local services by U.S. voters. The average marginal tax rate of itemizers and the proportion of voters who itemize have been used in computing this average price. The net price was lowest for Alaska, Colorado, Maryland and Michigan (at 86¢ on a dollar) and highest for South Dakota (at 95¢ on a dollar), with a U.S. average of 89¢ for an extra dollar of state-local services. (*Table 3–5*, Column 3.)

Given the estimated price reductions, an estimate of the responsiveness of state-local spending to reductions in price is also needed. We have chosen from the grants literature an average price elasticity of spending of −.6, which predicts that a 10% decrease (increase) in price leads to a 6% increase (decrease) in state-local spending.[12]

According to our estimate, if deductibility were to be eliminated in order to reduce the federal deficit, state and local spending across the United States would be expected to fall by at least 7% relative to the spending level anticipated prior to deductibility's elimination.[13] This estimate is a conservative one; other authors have estimated that state-local spending would fall by as much as 23% with the elimination of deductibility.[14] Even though 7% is a small reduction in state-local spending, one must keep in mind that state-local spending would be depressed not just in the year of deductibility's elimination *but in each year following the elimination of tax deductibility*.

This spending stimulus tends to be greatest for high-income states, because they have the highest average marginal tax rate and the highest proportion of taxpayers who itemize deductions. The states with the highest stimulus to spending—8% or more—also have average per capita incomes in excess of 110% of the U.S. average. (These states are Alaska, California, Colorado, Maryland, Michigan, Minnesota and New York.) The states with the least stimulus to spending—5% or less—have average per capita incomes less than 85% of the U.S. average. (These states are Arkansas, Maine, North Dakota, South Dakota, Tennessee and West Virginia.)[15]

THROUGH ITS EFFECT ON INTERJURISDICTIONAL TAX COMPETITION

Since deductibility reduces the net impact of state-local taxes, it also reduces interjurisdictional tax differentials. In 1982 the total state-local tax burden faced by a married couple with adjusted gross income of $100,000 living in New York City was $12,179. If that same couple had lived in Bridgeport, CT, their state-local tax burden would have fallen to $3,710. However, because of the deductibility provision, this differential of more than $8,000 in taxes is more apparent than real. Since this couple faced a federal marginal income tax rate of 49%, their actual 1982 tax differential was slightly in excess of $4,000. (For other examples of intercity tax differentials and their reduction caused by deductibility, see *Table 3–6*.)

The common perception of deductibility's importance in muting interjurisdictional tax differentials is that it tends to reduce outmigration from high-spending and high-taxing states and localities.[16] This section will qualify that conventional wisdom: The deductibility provision can either reduce the incentive for outmigration or encourage immigration into relatively high-spending and high-taxing jurisdictions, depending upon how taxpayers value the expenditures funded by state and local taxes. In either case, the net result is to increase the relative attraction of high-spending

Table 3-7

POSSIBLE EFFECTS OF DEDUCTIBILITY ON MIGRATION[a]

	Gross Taxes	Taxes Net of Deductibility	Benefits	Net Benefits Before Deductibility	Net Benefits After Deductibility
CASE 1					
City A	$12,000	$6,000	$3,000	−$9,000	−$3,000
City B	8,000	4,000	2,000	− 6,000	− 2,000
				Incentive for migration from A to B	Reduced incentive for migration from A to B
CASE 2					
City A	$12,000	$6,000	$ 6,000	−$6,000	0
City B	8,000	4,000	4,000	− 4,000	0
				Incentive for migration from A to B	No incentive for migration
CASE 3					
City A	$12,000	$6,000	$ 9,000	−$3,000	$3,000
City B	8,000	4,000	6,000	− 2,000	2,000
				Incentive for migration from A to B	Incentive for migration from B to A
CASE 4					
City A	$12,000	$6,000	$12,000	0	$6,000
City B	8,000	4,000	8,000	0	4,000
				No incentive for migration	Incentive for migration from B to A

[a]Tax and benefit levels are assumed. A federal marginal tax rate of 50% is also assumed.
SOURCE: ACIR staff computations.

jurisdictions, thereby providing a general stimulus to state and local government spending.[17]

The role of interjurisdictional tax differentials as an influence upon population migration will be explained with the help of a stylized example presented in *Table 3-7*. This example is presented in terms of two cities, but could apply equally well to two states with differing fiscal policies. Similarly, while we have examined tax burdens faced by high-income taxpayers, the analysis would be the same for taxpayers at any income level, as long as they itemized deductions for state-local taxes. Given that other factors are equal, we assume that citizens are more attracted to a community with better public services and lower taxes.[18]

The tax levels chosen for our two hypothetical cities are in a realistic range. High-income taxpayers (with AGIs in excess of $100,000) living in New York City and Baltimore, MD, in 1982 faced total state-local tax burdens similar to the $12,000 and $8,000 tax burdens assumed

in the table. Likewise, the assumption that a federal marginal tax rate of 50% is applicable to these taxpayers is plausible.[19]

Because we have no information regarding the value high-income taxpayers place on state-local services received, we have made four alternative assumptions, shown in Cases 1 through 4. In Case 1, perceived benefits are one-fourth of taxes paid; in Case 2, benefits are one-half of taxes paid; in Case 3, benefits are three-fourths of taxes paid; and in Case 4, they are equal to the tax burden. High-income citizens are likely to perceive a low ratio of benefits to taxes in cases where state or local governments actively pursue redistributive policies; they are likely to perceive a high ratio of benefits to taxes paid in homogeneous communities in which government services closely match citizen preferences.

The net benefits from state-local government gained by living in City B rather than City A before deductibility is considered are indicated in Column 4. It is apparent that, except in the case in which citizens get a dollar's worth of services for a dollar's worth of taxes, there is an incentive to move to the low-taxing and low-spending community. The strength of that incentive, however, does depend on the relationship between taxes and benefits received: The greater perceived benefit levels are relative to tax burdens, the smaller the actual incentive for migration to the low-tax community.

This insight can be applied to a state-by-state comparison of actual tax burdens such as that set up by AGI class in *Table 3–8*. At first glance, the range of state-local tax burdens within certain regions of the U.S. appears to be very large. For example, California taxpayers in the highest income bracket faced average state-local tax burdens of $21,717—more than $17,000 higher than that faced by similar high-income taxpayers in the state of Washington. As a corollary to our point above regarding benefit levels, however, these average tax burdens must be adjusted by netting out benefits received using some estimate of the relationship of benefit levels to taxes paid. For example, if residents in both California and Washington feel on the average that they get 30¢ of services for every dollar paid in taxes, then the effective California-Washington tax differential falls to about $11,000.

The effective tax differentials that remain once benefit levels are considered may be further reduced by the deductibility provision of the federal income tax. Case 1 of *Table 3–7* provides just such an example. Before the consideration of deductibility, it appeared that a high-income taxpayer would gain $3,000 by moving to the low-spending community. After deductibility is considered, however, it becomes apparent that the fiscal advantage of moving to City B is only $1,000.

It is possible for deductibility to reduce the net tax burden imposed by the high-taxing community by so much that it actually becomes advantageous to migrate from the low-taxing community to the high-taxing community. Case 3 illustrates this possibility: Before deductibility is considered, it appears that the fiscal advantage of moving to City B (the low-tax city) is $1,000. Tax deductibility consideration, however, reveals that the net fiscal advantage is actually the reverse: The fiscal advantage of moving to the high-tax city is $1,000.

How did this come about? While the answer is simple, it has not been discussed in studies that look at tax burdens but ignore the benefit side of the picture. Through the deductibility provision one-half of city expenditures are paid for by the federal government (actually by U.S. taxpayers in general). However, these high-income taxpayers receive benefits equal to three-fourths of the taxes they pay. In other words, by spending 50¢ out of their own pockets, they can increase city services by an amount which is worth 75¢ to them. Because of the deductibility provision, the higher-spending and taxing community becomes the more attractive community.

Any large metropolitan area is likely to produce examples in which the deductibility provision creates an incentive for migration of itemizing taxpayers to higher-spending and taxing communities. Our Case 4 could be a rough depiction of incentives facing high-income taxpayers choosing between Santa Monica and Beverly Hills, two relatively homogeneous communities in which government services closely match citizen preferences. According to our hypothetical numbers, a citizen in Beverly Hills pays $12,000 in local taxes and receives $12,000 in benefits, but receives a $6,000 "rebate" on local taxes from the federal government's tax deductibility provision, pro-

ducing a net benefit of $6,000. The Santa Monica resident pays less in local taxes ($8,000) but after taking tax deductibility into consideration is actually worse off than the Beverly Hills resident because he receives a net benefit of only $4,000.

The general rule for the effect of deductibility on incentives for migration is this:

1. When the ratio of benefits to taxes paid plus the taxpayer's marginal tax rate exceeds one, deductibility produces an incentive to move to a high tax community.
2. When the ratio of benefits to taxes paid plus the taxpayer's marginal tax rate is less than one, deductibility reduces the incentive to move to a low tax community.[20]

For example, taxpayers in a 35% federal marginal tax bracket would gain by moving to high-spending and high-taxing communities because of the deductibility provision *if* they felt that for every dollar of state-local taxes paid they received at least 65¢ in benefits. If these taxpayers valued state-local services at less than 65¢ on a dollar, they would face a fiscal incentive to move to a low-tax community. The strength of that incentive, however, would have been reduced because of the deductibility provision. In either case, the deductibility provision of the federal income tax provides a stimulus to state-local spending.

THROUGH ITS EFFECT ON TAX POLICIES OF ELECTED OFFICIALS

In the two previous sections, we focused on deductibility's effect on the level of state-local spending that results from citizens voting at the ballot box or citizens "voting with their feet." In this section we shall look briefly at deductibility's effect on state-local taxing and spending from a complementary perspective: that of the elected official.

The elected official contemplating a tax increase may realize that the actual additional tax burden is reduced for taxpayers by a proportion equal to the taxpayer's federal marginal tax rate. Likewise, the net gain from a tax rollback will be less than the stated tax decrease because taxpayers' federal income tax deductions will be reduced and therefore their federal income taxes will be raised. Following Proposition 13's passage, this latter effect was noted as a "$1.9 billion giveaway to Uncle Sam" from the state of California.[21]

Politicians are also apt to compare their jurisdiction's taxing and spending policy with that of their neighbors. For example, high-tax states within a region may feel pressure to decrease tax rates or at least to moderate future tax increases in order to prevent population loss to a neighboring state. Since deductibility mutes interjurisdictional tax rate differentials, the pressure on a high tax state for tax reductions will be moderated.

Let us examine the way in which deductibility can affect the making of tax policy by referring to *Table 3–9*. This table lists effective state personal income tax rates in 1980, before and after deductibility, for a married couple with adjusted gross income of $50,000. Within the Great Lakes region, Wisconsin levies the highest personal income tax on this income group, at 7%, and Indiana levies the lowest, at 1.6%. Before the federal tax offset is considered, it appears that Wisconsin levies an additional 5.4% tax on income. Once deductibility is considered, however, the net additional income tax levied by Wisconsin compared to Indiana is reduced to 2.8%. The muting effect of deductibility may give Wisconsin legislators more freedom to maintain relatively high income tax rates and the elimination of deductibility would put pressure on them to bring their tax policy more into line with the lower-tax Great Lake states.[22]

Although we have examined three ways in which deductibility is likely to stimulate state-local spending, we have looked at empirical evidence on the magnitude of only the first mechanism for stimulating spending—that influencing spending levels desired by voters through changes in incomes and prices they face. Currently, no good evidence exists for the other two, probably less important means, by which deductibility stimulates state-local spending.

Deductibility's Effect on Type of State-Local Tax System

The deductibility of state and local taxes not only has an effect on the overall level of state-

Table 3–8

A COMPARISON OF STATE-LOCAL TAX BURDENS BEFORE DEDUCTIBILITY, 1980

Region and State		AGI Class $9,000–$12,000[a]	AGI Class $26,000–$30,000	AGI Class $100,000 and Over
U.S. Total		$1,005	$2,037	$13,603
New England	**Range:**	**$1,016**	**$1,199**	**$10,913**
Connecticut		1,060	1,620	12,210
Maine		996	1,953	16,137
Massachusetts		2,112	2,819	17,532
New Hampshire		1,365	1,673	7,591
Rhode Island		1,380	2,400	18,504
Vermont		1,092	2,659	15,451
Mideast	**Range:**	**790**	**1,055**	**19,453**
Delaware		866	2,156	24,789
Washington, DC		690	2,366	20,701
Maryland		1,195	2,699	15,191
New Jersey		1,369	2,130	12,323
New York		1,480	3,185	29,276
Pennsylvania		1,235	2,160	9,823
Great Lakes	**Range:**	**485**	**1,497**	**12,333**
Illinois		1,082	1,866	8,838
Indiana		773	1,349	5,655
Michigan		1,258	2,607	13,356
Ohio		773	1,651	10,366
Wisconsin		1,066	2,846	17,988
Plains	**Range:**	**478**	**1,458**	**14,504**
Iowa		1,104	1,930	12,372
Kansas		867	1,722	9,772
Minnesota		940	2,660	18,008
Missouri		711	1,519	7,866
Nebraska		1,009	1,953	14,115
North Dakota		1,189	1,202	5,681
South Dakota		1,093	1,834	3,504

Southeast	**Range:**	**489**	**1,389**	**9,327**
Alabama		575	1,551	8,487
Arkansas		437	1,548	12,300
Florida		617	822	5,965
Georgia		914	1,846	11,865
Kentucky		819	1,923	9,161
Louisiana		450	819	4,536
Mississippi		623	1,501	8,453
North Carolina		809	1,938	13,863
South Carolina		644	1,783	11,976
Tennessee		666	970	4,576
Virginia		758	2,208	11,761
West Virginia		425	1,428	11,053
Southwest	**Range:**	**210**	**735**	**6,694**
Arizona		774	1,652	8,885
New Mexico		564	1,181	10,579
Oklahoma		674	1,337	10,159
Texas		604	917	3,885
Rocky Mountain	**Range:**	**563**	**1,283**	**9,892**
Colorado		977	1,883	9,498
Idaho		922	1,944	12,579
Montana		812	1,801	10,325
Utah		1,028	2,159	9,373
Wyoming		465	876	2,687
Far West	**Range:**	**697**	**1,394**	**17,385**
California		1,037	2,175	21,717
Nevada		614	827	5,594
Oregon		1,112	2,168	16,522
Washington		663	1,113	4,332
Alaska		547	1,092	4,596
Hawaii		1,311	2,221	17,068

[a]The state-local tax burdens shown are itemized deductions per return.

SOURCE: ACIR staff computations using unpublished 1980 IRS Individual Income Tax Model file.

Table 3–9

EFFECTIVE STATE PERSONAL INCOME TAX RATES IN 1980 BEFORE AND AFTER DEDUCTIBILITY FOR A MARRIED COUPLE WITH AGI OF $50,000

State and Region	(1) State Income Tax Rate	(2) Effective State Income Tax Rate After Federal Deductibility[a]
New England	**Range 0 to 4.6**	**Range 0 to 2.3**
Connecticut	0	0
Maine	4.6	2.3
Massachusetts	4.6	2.3
New Hampshire	0	0
Rhode Island	3.8	1.9
Vermont	4.6	2.3
Mideast	**Range 2.1 to 7.0**	**Range 1.1 to 3.6**
Delaware	6.5	3.3
Washington, DC	7.0	3.6
Maryland	3.8	1.9
New Jersey	2.1	1.1
New York	7.0	3.6
Pennsylvania	2.2	1.1
Great Lakes	**Range 1.6 to 7.0**	**Range 0.8 to 3.6**
Illinois	2.3	1.2
Indiana	1.6	0.8
Michigan	2.8	1.4
Ohio	2.3	1.2
Wisconsin	7.0	3.6
Plains	**Range 0 to 7.3**	**Range 0 to 3.7**
Iowa	4.5	2.3
Kansas	3.0	1.5
Minnesota	7.3	3.7
Missouri	2.8	1.4
Nebraska	2.8	1.4
North Dakota	2.2	1.1
South Dakota	0	0

Southeast	**Range 0 to 5.1**	**Range 0 to 2.6**
Alabama	2.7	1.4
Arkansas	4.5	2.3
Florida	0	0
Georgia	4.0	2.0
Kentucky	3.3	1.7
Louisiana	0.7	0.4
Mississippi	2.3	1.2
North Carolina	5.1	2.6
South Carolina	4.8	2.4
Tennessee	0	0
Virginia	4.2	2.1
West Virginia	3.1	1.6
Southwest	**Range 0 to 3.3**	**Range 0 to 1.7**
Arizona	3.3	1.7
New Mexico	2.4	1.2
Oklahoma	3.3	1.7
Texas	0	0
Rocky Mountain	**Range 0 to 5.0**	**Range 0 to 2.5**
Colorado	2.9	1.5
Idaho	5.0	2.5
Montana	4.6	2.3
Utah	4.1	2.1
Wyoming	0	0
Far West	**Range 0 to 5.8**	**Range 0 to 3.0**
California	4.5	2.3
Nevada	0	0
Oregon	5.6	2.9
Washington	0	0
Alaska	0	0
Hawaii	5.8	3.0

[a]The assumed federal marginal income tax rate is 49%. This rate was chosen because unpublished IRS data show that the modal marginal tax rate for married itemizers in the $50,000 to $75,000 AGI range in 1980 was 49%.

SOURCE: ACIR computations based on Tables 31 and 34 of *Significant Features of Fiscal Federalism—1981–82 Edition* and unpublished 1980 IRS Individual Income Tax Model file.

local taxing and spending; it also affects the type of state-local tax system—specifically with regard to the distribution of tax burden by income level and the particular types of state-local taxes used.

Currently, very few state and local taxes are not allowed as deductions from the federal income tax. These are user charges and other special fees, special assessments for improvements to property, and state and local excise taxes. The fact that such taxes are not deductible means that for every dollar raised, the state or local taxpayer pays a full dollar in taxes. Conceivably, this could create a bias against the use of these taxes relative to the major deductible state and local taxes.

Likewise, within the groups of deductible taxes, some produce greater federal tax savings for state-local taxpayers than do others. The more progressive the state-local tax, the greater the federal offset will be. This result follows from the fact that higher income taxpayers are more likely to itemize and face higher marginal tax rates than are lower-income taxpayers. Two jurisdictions levying equal tax burdens can realize different federal tax offsets: The jurisdiction which taxes its higher income citizens more heavily gains the greater federal tax savings through deductibility. Therefore, deductibility produces a bias in favor of both adopting state-local income taxes over sales taxes and progressive rather than proportional income taxes.[23]

Calculation of a numerical example indicates the magnitude of deductibility's bias in favor of progressive income taxes. Massachusetts residents could have saved $104 million in total tax liability in 1973 by replacing their flat-rate state income tax with a graduated income tax that produced the same total revenue. Under existing law, that state collected $891 million in income tax revenue, with $243 million passed on to U.S. taxpayers as a whole through reductions in federal income tax liability. With graduated rates, the $891 million in collections would have cost Massachusetts taxpayers less because $347 million would have been passed on to U.S. taxpayers in general via the deductibility provision.[24] The frequent reliance by states on graduated income taxes (35 out of the 40 states with income taxes) can be attributed in part to federal deductibility of state and local taxes.[25]

Any evaluation of the effect deductibility has on the types of state-local tax systems that have been adopted must encompass two considerations: *First*, one must begin with an idea of what constitutes a good state or local tax structure. For example, should a city rely equally on all major tax sources or primarily on local property tax revenue? *Second*, any existing biases in other federal tax provisions or state-local laws should be taken into account. For example, deductibility's bias against reliance on user fees could act as a beneficial counterbalance to an existing bias in favor of their use produced by state-local revenue or expenditure limitations.

ALTERNATIVE PROPOSALS FOR MODIFYING OR ELIMINATING DEDUCTIBILITY: EXPLANATION AND EVALUATION

Federal tax reform that attempted to move toward a flat-rate income tax could result in either trimming or eliminating the deductibility provision. Because a truly comprehensive flat-rate income tax would tax all income whatever its source or use, its adoption would involve eliminating the deductibility of state and local taxes. The Bradley-Gephardt proposal, on the other hand, would eliminate only the sales and personal property tax deductions but would reduce the value of real property and personal income tax deductions. A down payment on the federal deficit could also involve a modification of the deductibility provision. For example, the recent Congressional Budget Office report on spending and revenue options for reducing the deficit proposes the elimination of sales-tax deductibility as a revenue-raiser worth $28 billion over a five-year period.[26]

Elimination of state and local tax deductibility that would increase federal income tax revenue by $31 billion in 1985 would have four major effects:[27]

1. The federal tax liability of taxpayers who have been itemizing state-local taxes would rise. (In 1980, the average increase in income tax liability from eliminating deductibility would have been over $400 per taxpayer.) Upper-income taxpayers residing in high-spending states

with relatively progressive tax structures would be the biggest losers.

2. State and local spending would be depressed because of the effects on voters' budgets, interjurisdictional tax differentials and on tax policies of elected officials. A conservative estimate of the overall permanent decrease in state and local spending relative to spending levels in the presence of tax deductibility is 7%.
3. The progressivity of the federal individual income tax would be increased.
4. State-local tax structures, on the other hand, are likely to become more regressive because an important incentive in favor of the adoption of graduated, rather than flat rate state income taxes, would be eliminated.

It is more likely, however, that the tax benefit from the deductibility provision would be reduced rather than eliminated. We will examine three alternative proposals for a modification in the deductibility provision, each of which would bring in about 15% of the revenue resulting from elimination of the deductibility provision:[28]

1. There could be a complete elimination of deductibility for sales taxes only.
2. Congress could set a general floor on state and local tax deductions as a percentage of adjusted gross income. In other words, deductions above a minimum eligibility amount would be allowable. In order to make this proposal revenue-equivalent to eliminating sales tax deductibility, the floor would have to be set at 1.08% of AGI.
3. Congress could set a ceiling (maximum allowable amount) on deductions as a percentage of adjusted gross income. In order to make this proposal revenue-equivalent to the elimination of sales tax deductibility, the ceiling would have to be set at 6.32% of AGI.[29]

Although each of these modification proposals has approximately the same aggregate effect on taxpayers' after-tax incomes, the effects on net prices for state-local services is different. *The general floor proposal* would have no effect on the existing price reduction for state-local services provided to itemizers through the deductibility provision as long as their state-local tax deductions exceed the floor. In contrast, *the ceiling proposal* would completely eliminate deductibility's price effect for all itemizers whose deductions for state-local taxes exceed the stated ceiling. *The sales tax proposal* would probably fall in between the ceiling and the floor. Disallowing deductibility of the sales tax would eliminate the existing deductibility discount for state-local services that are financed through the sales tax—approximately 13% of total state-local services nationwide.[30] If one assumes that relative reliance on the sales tax would not be affected by disallowing its deductibility, the price increase due to the sales tax proposal would be about 13% as high as the price increase following from deductibility's elimination or from a ceiling set low enough so that each itemizing taxpayer would be affected. If disallowing sales tax deductibility decreases reliance on the general sales tax, the price reduction would be even smaller. In either case, the small price effect of the sales tax proposal would make it more like the floor than the ceiling proposal.

RELATIVE EFFECTS ON TAXPAYERS IN DIFFERENT STATES

Total state and local taxes deducted as a percent of itemizers' AGI range from 2.7% in Wyoming to 12.5% in New York, with a U.S. average of 7.4%. (*Table 3–10.*) Therefore, the imposition of a floor of 1.08% of AGI on state-local tax deductions would have approximately the same impact for itemizers of the same income level in each state: The average itemizer in each state would face increased federal taxes

Table 3–10
STATE-LOCAL TAXES DEDUCTED AS A PERCENTAGE OF ITEMIZERS' AGI, BY STATE, 1980

	Percent	Greater than 6.32%		Percent	Greater than 6.32%
Alabama	5.4		Missouri	5.8	
Alaska	3.9		Montana	6.4	x
Arizona	6.2		Nebraska	7.5	x
Arkansas	5.9		Nevada	3.4	
California	8.6	x	New Hampshire	6.0	
Colorado	7.0	x	New Jersey	8.2	x
Connecticut	6.8	x	New Mexico	5.2	
Delaware	8.3	x	New York	12.5	x
Washington, DC	9.5	x	North Carolina	7.5	x
Florida	3.6		North Dakota	4.8	
Georgia	6.6	x	Ohio	6.0	
Hawaii	8.8	x	Oklahoma	5.3	
Idaho	7.3	x	Oregon	8.6	x
Illinois	6.6	x	Pennsylvania	7.5	x
Indiana	4.8		Rhode Island	9.2	x
Iowa	7.0	x	South Carolina	7.0	x
Kansas	6.0		South Dakota	5.1	
Kentucky	6.8	x	Tennessee	3.7	
Louisiana	3.0		Texas	3.2	
Maine	8.2	x	Utah	7.7	x
Maryland	9.6	x	Vermont	8.9	x
Massachusetts	10.9	x	Virginia	7.6	x
Michigan	9.1	x	Washington	3.9	
Minnesota	9.6	x	West Virginia	5.0	
Mississippi	5.1		Wisconsin	10.5	x
			Wyoming	2.7	
			U.S. total	7.4	x

SOURCE: ACIR staff computations using unpublished 1980 IRS Individual Income Tax Model file.

equal to 1.08% of their AGI times their relevant marginal tax rates.[31]

On the other hand, the imposition of a 6.32% ceiling would increase federal income taxes paid by the average itemizer in 30 states but have no impact on taxes paid by the average itemizer in the other states. The elimination of sales tax deductibility would also have an uneven impact across taxpayers in the various states. Taxpayers in four states that do not levy a general sales tax—Delaware, Montana, New Hampshire and Oregon—would be hurt only negligibly. Taxpayers in other states would pay increased yearly taxes of from $33 to $105, with most increased tax bills falling in the $40 to $80 range. (*Table 3–4*, Column 2.)

Evenhandedness of these three proposals among the states was examined by Noto and Zimmerman in an alternative way.[32] The coefficient of variation for the increase in federal

taxes as a percent of state AGI was calculated for each proposal. The coefficients of variation were 1.37, .41, and .20 for the ceiling, sales tax and floor proposals, respectively. According to this measure, while the variability in increased tax burden arising from disallowing deductibility of the sales tax is not much greater than for the floor proposal, the variability arising from the imposition of a ceiling is much greater than for either the sales tax or floor proposals.

RELATIVE EFFECTS ON DIFFERENT INCOME GROUPS

While each of the three proposals for modifying deductibility would have a predominantly progressive effect on federal income tax liability, the most progressive of the proposals would be the floor as a percent of AGI, the least progressive the ceiling as a percent of AGI. *(Table 3–11.)*

The floor proposal would have a consistently progressive impact on federal tax liability for income classes with up to $500,000 AGI and thereafter the impact would be proportional. (The adjusted gross income on returns above $500,000 accounts for only 1% of total adjusted gross income on all returns.) The proposal calling for eliminating the sales tax deduction would have a progressive impact on returns accounting for about 93% of all AGI reported. Only those taxpayers whose returns report AGI in excess of $100,000 would face a regressive impact from the sales tax proposal. The ceiling proposal would have the most inconsistent effect on tax liability across income classes. For taxpayers reporting AGI in the $25,000–$30,000 range and the $100,000–$1,000,000 range, the proposal's impact would be regressive; in other income ranges, it would be progressive. However, the progressive effect is the predominant one, because the regressive impact is limited to taxpayers accounting for only about 18% of total AGI reported.[33]

Table 3–11

ESTIMATED INCREASE IN TAX LIABILITY AS A PERCENTAGE OF AGI FOR ALTERNATIVE MODIFICATIONS OF DEDUCTIBILITY PROVISION, 1980[a]

Size of AGI ($1,000s)	(1) 1% of AGI Floor[b]	(2) Ceiling at 6.5% of AGI	(3) Eliminate Sales Tax Deduction
Total	.20%	.21%	.25%
Under $5	0	0	0
5–10	.01	.05	.03
10–15	.03	.08	.07
15–20	.07	.09	.11
20–25	.13	.15	.19
25–30	.19	.14	.25
30–50	.27	.21	.33
50–100	.47	.47	.46
100–200	.58	.46	.40
200–500	.69	.45	.30
500–1,000	.69	.36	.21
1,000+	.69	.67	.13

[a]The percentage increases in tax liability are calculated for the AGI class as a whole, not merely for itemizers.
[b]Note that the floor examined here is set at 1% of AGI, rather than 1.08%, and the ceiling is set at 6.5% rather than 6.32%. The general conclusions regarding incidence should not be affected by these minor changes in the designated floor and ceiling.

SOURCE: Nonna A. Noto and Dennis Zimmerman, "Limiting State-Local Tax Deductibility In Exchange for Increased General Revenue Sharing: An Analysis of the Economic Effects," Senate Committee Print 98–77, Committee on Governmental Affairs, U.S. Congress, October 1983, p. 84.

EFFECTS ON LEVEL OF STATE-LOCAL SPENDING

The three proposals we are examining can be expected to reduce state-local spending by much less than would elimination of the deductibility provision: *First*, the increase in taxpayers' federal tax burdens would be only 15% as great as that arising from deductibility's elimination. *Second*, deductibility's effect in reducing the net price for state and local services would not be completely eliminated for any of these modification proposals. The floor would not eliminate the price effect for the average taxpayer in any state; the ceiling would eliminate the price effect for the average taxpayer in only 30 states; the sales tax proposal would eliminate approximately 15% of deductibility's price effect nationwide.

Noto and Zimmerman estimate that the decrease in own-source tax revenue as a percent of state-local taxes would be .72, .69, and .13 for the sales tax, ceiling, and floor proposals respectively. According to their estimates, none of these proposals would decrease the level of state-local spending by as much as 1%.[34]

EFFECTS ON STATE-LOCAL TAX STRUCTURE

One often expressed view of the relationship between deductibility and state-local tax structure is that any "change in the deductibility of state and local taxes should apply to all state and local taxes. Otherwise state and local governments would have an incentive to alter their revenue structures in favor of the tax or taxes that were not affected.... Thus, proposals such as that to eliminate the deductibility of sales taxes alone seem patently undesirable on the grounds that they would needlessly distort revenue-composition decisions at the state and local level."[35] In terms of the three alternatives considered here, if some modification of deductibility were necessary, this call for neutrality would favor the adoption of either the ceiling or floor proposals.

The advantages of federal tax treatment that is neutral among state-local revenue sources may be far more apparent than real, however. At a time when citizens favor increased reliance on state sales taxes over increased reliance on state income taxes by more than a two-to-one margin, one could argue that a strong bias in favor of increased reliance on the sales tax currently exists.[36] For this reason, the elimination of sales tax deductibility could increase overall neutrality toward state-local tax structures rather than reduce it. As stated in the previous section on deductibility's effect on state-local tax structure, without a guide to optimal state-local revenue balance and an assessment of existing biases in favor of or against existing state-local revenue sources, a definitive statement about the need for neutrality of proposed modifications of the deductibility provision cannot be made.

ADDITIONAL CONSIDERATIONS

Eliminating sales tax deductibility may not provide the same temptation to federal revenue raisers in the future as would setting a general floor or ceiling on state-local tax deductions. It is likely to be more difficult to muster support for eliminating the deductibility privilege for a second major state-local tax (the property or income tax) than it would be to merely raise an arbitrarily set floor or lower a ceiling. TEFRA (*Tax Equity and Fiscal Responsibility Act of 1982*) raised the floor on the medical expense deduction from 3% to 5% of adjusted gross income as a revenue raising move. Similarly, in future years a floor on state-local taxes set at 1% could be raised to a level that would have a more detrimental effect on the level of state-local spending. For this reason, if a modification of the deductibility provision appears imminent, state and local officials who object to eliminating deductibility altogether may prefer the sales tax proposal over other proposals.

Along with the current discussion of a flat tax, there has been considerable discussion of the adoption of a tax on consumption to stimulate savings and investment in the economy. Some additional support for eliminating the deductibility of state-local sales taxes, therefore, is likely to come from those favoring movement toward a national tax on consumption.

An interpretation of the proper role of itemized deductions vis-á-vis the use of exemptions and the standard deduction provides a final argument in favor of eliminating federal deducti-

Figure 3–1

COMPARISON OF THREE PROPOSED LIMITATIONS ON DEDUCTIBILITY PROVISION

Proposals for Reducing Deductibility	Criteria for Evaluation				
	Effect on Level of State and Local Spending	**Relative Effects on Taxpayers in Different States**	**Relative Effects on Different Income Classes**	**Effect on Type of State-Local Revenue Sources Used**	**Political Vulnerability to Further Limitation**
1. Elimination of Sales Tax Deductibility	Some reduction in stimulus to state-local spending.	Hurts taxpayers most in states with heavy reliance on the sales tax.	More progressive than proposal 3, less progressive than proposal 2.	Creates a bias against the sales tax (or reduces the current bias in favor of the sales tax).	Low
2. Setting General Floor on Deductions—Percent of AGI	Negligible effect on level of state-local spending.	Even impact.	More progressive than proposals 1 and 3.	No bias created.	High
3. Setting Ceiling on Deductions—Percent of AGI	Reduction of stimulus to state-local spending by more than proposal 1.	Hurts taxpayers most in high spending states.	Has a generally progressive impact on federal income tax.	Probably reduces bias toward progressive state-local tax systems.	High

SOURCE: ACIR staff compilation.

bility of state and local sales taxes. The recent Congressional Budget Office report argues that:

> while the tax code generally allows deductions for relatively large and unpredictable expenses that affect a taxpayer's economic circumstances, uniform expenses affecting nearly all taxpayers have traditionally been subsumed in the zero-bracket amount and in the exemptions of the tax structure. The sales tax deduction, by virtue of the way it is computed (from standardized tax tables with amounts varying only by state, family size, and income) and its scope of coverage (claimed by nearly all itemizers) fails to meet these general criteria.[37]

In summary, the proposals for limiting the deductibility provision by eliminating deductibility of the sales tax, instituting a floor on all state-local taxes at 1.08% of AGI, and setting a ceiling on state-local tax deductions of 6.32% of AGI would have the following effects:

1. The ceiling would have by far the most uneven impact on taxpayers in different states. The sales tax and floor proposals would treat taxpayers in different states more evenhandedly, with the floor being slightly superior to the sales tax proposal on this criterion.

2. The progressivity of the federal individual income tax would be increased under each proposal. Of the three proposals, the one that has the greatest effect in increasing progressivity is the floor; the one with the least effect, the ceiling.

3. The floor and ceiling would have a neutral effect on state-local tax structure relative to the status quo. However, given the magnitude of the current popular sentiment supporting increased reliance on the sales tax, the nonneutrality of the sales tax proposal may be more apparent than real.

4. It is unlikely that any of the proposals would have a significant effect on total state-local spending.

SUMMARY OF MAJOR FINDINGS

The provision of the federal income tax that allows deductibility of state and local taxes reduces federal income tax liability for those taxpayers who itemize. Not only do taxpayers retain more income after taxes; they face a reduced "price" for most state and local government services.

From the federal vantage point, deductibility of state and local taxes may be viewed as a necessary adjustment in order to make taxable income a better measure of ability to pay taxes. However, to the extent that state and local voters freely choose to increase taxes they pay in order to receive government benefits that are like the benefits received from private goods, the ability-to-pay justification for the deductibility provision is weakened.

The aggregate effect of deductibility is to reduce the progressivity of the federal income tax. This effect arises because deductibility increases net income of a particular group of taxpayers more, the greater the group's marginal tax rate and the greater the proportion of the group that itemizes deductions. Both marginal tax rates and the proportion of taxpayers itemizing state-local taxes increase as one progresses up the income scale.

Because deductibility can make it possible for state and local governments to raise more revenue than they otherwise would be able to, this provision can also be thought of as an implicit subsidy to state and local governments. It is estimated that in 1985 federal revenue foregone because of deductibility ($31 billion) will be almost one-third of the total 1985 federal expenditure on grants-in-aid to state and local governments.[38] On a nationwide basis, more than half of the tax reduction benefits gained from deductibility are from the income tax, with personal and real estate property tax deductions next in importance, and the benefits from the sales tax deductions the least important.

The deductibility benefits accruing to

itemizing taxpayers are divided unevenly among the states. Upper-income taxpayers residing in high-spending states with relatively progressive tax structures gain the most from deductibility. For example in 1980 itemizing taxpayers in Washington, DC, received the highest benefits—an average $917 in federal tax savings per year; itemizers in Wyoming received less than one-fifth of the tax savings—an average of $162.

The most important way in which the deductibility provision affects state and local governments is by providing a stimulus to state and local government spending. This stimulus is provided in three ways:

1. Itemizing voters are likely to support or tolerate higher spending than they otherwise would because of deductibility's effect in increasing their income and reducing the net prices they pay for state and local services.
2. Deductibility also encourages higher spending levels because its muting effect on interjurisdictional tax differentials makes high-spending and high-taxing jurisdictions more attractive relative to those that are low-spending and low-taxing. Depending upon how taxpayers value the expenditures funded by state and local taxes, deductibility either reduces the incentive for outmigration or in some cases may even encourage immigration into relatively high-spending and high-taxing jurisdictions.
3. Elected officials may be more apt to propose tax increases since they realize that, due to the deductibility provision, the net additional tax payment is less than the actual proposed increase for many voters. At the same time, these officials are likely to worry less about maintaining higher tax rates than those of other jurisdictions because of deductibility's muting effect on interjurisdictional tax differentials.

The deductibility provision also produces a bias against the use of user charges and in favor of the use of graduated income taxes at the state-local level. The first bias arises because some state and local taxes are not allowed as federal income tax deductions. These taxes include special assessments for improvements to property and state and local excise taxes, and user charges and other special fees. The second bias arises because the more progressive the state-local tax, the greater the federal offset will be.

To those persons who are concerned about reducing the federal deficit through broadening the federal income tax base, eliminating or reducing allowable state-local tax deductions stands out as a very attractive opportunity to increase tax revenue. Elimination of deductibility of state and local taxes would increase federal income tax revenue by about $30 billion a year; current proposals for reducing the deductibility provision would bring in about one-fifth of that amount.

Elimination of the deductibility of state-local taxes would have four major effects. While the federal income tax liability of all taxpayers who have been itemizing state-local taxes would rise, the increase in federal tax payments would be greatest for upper-income taxpayers in high-spending states with relatively progressive tax systems. State and local spending would also be depressed. A conservative estimate of the magnitude of this impact is that aggregate state-local spending would decrease by 7%. Finally, the progressivity of the federal income tax would be increased, while it is likely that state-local tax structures would become more regressive.

Of all the proposals for reducing allowable deductions of state and local taxes, setting a ceiling (a maximum allowable amount) on deductions as a percentage of adjusted gross income appears to be the least attractive. The major reason for this assessment is the uneven impact that this proposal would have on taxpayers in different states.

If some modification in the deductibility provision is necessary, either the elimination of sales tax deductibility or the setting of a general floor (deductions above a minimum eligibility amount allowable) on state-local tax deductions as a percentage of adjusted gross income seems preferable. A floor would be slightly superior to the sales tax proposal in terms of evenhandedness in its treatment of taxpayers in different states. The sales tax proposal would have a less neutral effect on state-

local tax structure relative to the status quo than would the floor proposal; but given the magnitude of the current popular sentiment supporting increased reliance on the sales tax, the nonneutrality of the sales tax proposal may be far more apparent than real. An advantage of the sales tax proposal to state-local officials is that it would not provide the same temptation to federal revenue-raisers as would the floor proposal: the reason being that it is likely to be more difficult to muster support for eliminating the deductibility privilege of the property or income tax than it would be merely to raise an arbitrarily set floor.

FOOTNOTES

[1]Note that we are not considering deductibility of state and local *business* taxes. All agree that these taxes are a legitimate cost of doing business and therefore should be deducted to arrive at net income—the appropriate tax base.

[2]A third justification sometimes given for the deductibility provision is "to aid in fiscal coordination in a federal system." (Richard Goode, *The Individual Income Tax*, revised edition, Washington, DC, the Brookings Institution, 1976, p. 170.) Goode specifically mentions the possibility that total marginal tax rates might exceed 100% without the deductibility provision. At a time when the top federal marginal income-tax rate exceeded 90%, this argument was likely to be important. Now that the top federal income tax rate is 50%, however, the argument is not important.

[3]The price reduction is applicable only to state-local services deductible from the federal personal income tax. In 1980, approximately 68% of state own-source revenue was derived from deductible taxes; approximately 91% of local own-source revenue was derived from deductible taxes. (Calculations are based on Table 17, *Significant Features of Fiscal Federalism, 1981–82 Edition*, pp. 31–32.)

[4]As the footnotes to *Table 3–1* indicate, this price decrease due to deductibility is applicable only to state-local services financed by taxes deductible from the federal personal income tax. This implies that *Table 3–1* overstates the average price discount for all state-local services arising from deductibility. Furthermore the overestimate is greater for state services than for local services.

Table 3–1 also assumes that taxpayers itemizing state-local taxes deduct payments for income, real estate, sales and personal property taxes. This is not correct: Of returns itemizing some state-local taxes, 84% deducted income taxes, 87% deducted real estate taxes, 96% deducted sales taxes, and 41% deducted personal property taxes. (Table 2.1, Internal Revenue Service, *Statistics of Income—1980, Individual Income Tax Returns*, p. 56.)

[5]In some cases the deduction of state-local taxes moves a taxpayer into a lower tax bracket. The calculation described in the text would then overstate the tax savings arising from deductibility. Instead, the correct calculation would be:

$B_1 \times MTR_1 + B_2 \times MTR_2 + B_3 \times MTR_3 + \ldots.$

where MTR_1 is the highest marginal tax bracket the taxpayer would have faced without deductibility of state-local taxes.

MTR_2, MTR_3, etc., are the next lowest tax brackets.

B_1 is the amount of income that would have been taxed at the highest tax rate.

$B_{2,3}$, etc. are the income amounts that would have been taxed at the lower tax rates.

And $B_1 + B_2 + B_3 + \ldots$ equals total state-local taxes deducted.

[6]Income classes above $18,000 AGI account for approximately 80% of the returns with a state-local tax deduction of any kind. (Computed from Internal Revenue Service, *Statistics of Income—1980, Individual Income Tax Returns*. Washington, DC: U.S. Government Printing Office, 1982. Publication 79 (9–82), Table 2.1, p. 56.)

[7]See for example, David Durenberger, "The Governors' Debts", *The Washington Post*, March 7, 1984, editorial page. This viewpoint, however, is a controversial one. Others resist the assumption that tax expenditures arising from the deductibility provision can be considered a subsidy to state-local governments in the same way as grants-in-aid.

[8]Nonna A. Noto and Dennis Zimmerman, "Limiting State-Local Tax Deductibility in Exchange for Increased General Revenue Sharing: An Analysis of the Economic Effects," Senate Committee Print 98–77, Committee on Governmental Affairs, U.S. Congress. October 1983, p. 85.

[9]The states listed are those for which the taxpayer benefit is more than one standard deviation greater than average or less than one standard deviation less than the average benefit for the entire United States.

[10]Tables presenting total and per capita tax savings from the deductibility provision are available from ACIR Taxation and Finance.

[11]Helen F. Ladd, "Aid to State and Local Governments" in Gregory Mills and John Palmer, eds., *Federal Budget Policy in the 1980s*, Washington, DC: the Urban Institute, 1984, p. 46. Ladd notes that the majority of the voters were itemizers in 42 of the 58 cities and towns surveyed.

[12]We have chosen to arrive at a plausible price elasticity by averaging the price elasticities computed with respect to matching grants and service cost indices reported in Table 9.1 of Robert P. Inman's "Fiscal Performance of Local Governments", in Peter Mieszkowski and Mahlon Straszheim, eds., *Current Issues in Urban Economics*. Baltimore: The Johns Hopkins Press, 1979. This makes the assumption that taxpayers react in the same way to a price change resulting from deductibility, matching grant rates, and service costs. While this assumption may be questionable, it seemed preferable to taking one of the price elasticity estimates from the sparse literature in which the price effect of deductibility is explicitly estimated. For example a 1971 Inman study estimated the price elasticity of local taxes with respect to changes in deductions to be as high as −1.49. This seems unrealistically high. (Inman, Robert P., 1971, *Four Essays on Fiscal Federalism*. Ph.D. dissertation, Harvard University.)

The price elasticity we are using is not a compensated price elasticity: therefore it automatically includes the income effect initially explained in the mechanisms of deductibility section.

[13]Since our price elasticity implicitly includes the income effect, our estimate is appropriate for a policy change in which the resulting revenue gained from eliminating deductibility is used to pay off the deficit but would not be appropriate for a policy change which eliminated deductibility and then reduced U.S. income taxes to keep total federal revenue constant.

The estimation of deductibility's spending stimulus used here corresponds to a mean voter model rather than to the median voter model currently popular in the economic literature. Given the lack of good evidence on whether the median voter itemizes state and local taxes, the approach used here seemed preferable.

[14]Helen F. Ladd in "Aid to State and Local Governments," in Gregory Mills and John Palmer, eds., *Federal Budget Policy in the 1980s*, Washington, DC: the Urban Institute, 1984, p. 46, estimates that "eliminating tax deductibility might reduce the demand for public services in many jurisdictions by about 14%. . . ." Her estimate is larger than ours because she looks only at communities in which the decisive voter is an itemizer and assumes that the average itemizer has a marginal tax rate of 32%.

Nonna A. Noto and Dennis Zimmerman in "Limiting State-Local Tax Deductibility in Exchange for Increased General Revenue Sharing: An Analysis of the Economic Effects," Senate Committee Print 98–77, Committee on Governmental Affairs, U.S. Congress, October 1983, p. 11, estimate that deductibility stimulated approximately 21% additional state-local spending. Again their large estimate of the spending stimulus relative to ours follows from their assumption that "itemizers determine State-local fiscal decisions. . . ."

[15]Calculated from *Table 3–5* using additional data from *The Statistical Abstract of the United States, 1981*, U.S. Bureau of the Census, 102d edition, Washington, DC, 1981, p. 429.

[16]According to the Tiebout model, one would not expect interjurisdictional tax competition because citizen-taxpayers would set up communities according to their desires for government services and taxes paid would be the "price" of these government goods and services. A high-tax community could coexist peacefully next door to a low-tax community with no fear of taxpayer exodus. The citizens of the high-tax community would be paying taxes for what they want, whether it be a high-quality school system or a golf course and fancy tennis courts, and therefore would have no incentive to move to the low-tax community. Likewise, the citizens of the low-tax community would be content to stay in their community with a more modest menu of government services because they prefer to pay less in taxes and reserve more of their income for private use. (Charles M. Tiebout, 1956, "A Pure Theory of Local Expenditures," *Journal of Political Economy* 64: 416–24.)

However, real-world factors do cause tax burdens to exceed desired benefit levels, the condition necessary for tax competition. These factors include inefficiency in government production, production of a menu of government services not wanted by the voters, and spillovers of taxes and benefits.

Although a mismatch between the benefits of government expenditures and the burden of taxes is necessary for tax competition, such a mismatch does not ensure that tax competition will be of great importance. If taxpayers move primarily for employment reasons or are attracted to a location for its nongovernmental amenities, tax competition among neighboring jurisdictions will be less important.

[17]Because some portion of tax differentials is likely to be capitalized into property values, their effect in inducing interjurisdictional migration is already muted. Most studies have examined capitalization of property taxes only and find 40% to 90% capitalization. (George R. Zodrow, "The Tiebout Model after Twenty-Five Years: An Overview" in George R. Zodrow, ed., *Local Provision of Public Services: The Tiebout Model after Twenty-Five Years*, New York: Academic Press, 1983, pp. 10–11.)

Even if subsequent studies show a high degree of capitalization of all state-local taxes, our results regarding deductibility's importance in muting interjurisdictional tax competition would remain unchanged. The attractiveness of high-spending relative to low-spending jurisdictions would be reflected in property values rather than in migration patterns. For example, city officials might be encouraged to reduce taxes because their high-taxing and spending behavior was reducing their city's property values. Deductibility's muting effect on tax differentials would then be reflected in a smaller decline in property values for high-taxing and spending jurisdictions than would otherwise be the case. As in the examination of deductibility's effect on migration patterns, by making high-spending and taxing jurisdictions more attractive relative to low spending and taxing jurisdictions, the overall effect of the deductibility provision is to encourage higher levels of state-local spending.

[18]See Richard J. Cebula, "A Survey of the Literature on the Migration-Impact of State and Local Government Policies", *Public Finance*, 34:1 (1979), pp. 69–84.

[19]See *Table 3–1* and *Table 3–6*.

[20]This can be shown in equation form given the following definitions:

T_A = taxes in City A

T_B = taxes in City B, where $T_A > T_B$

BR = proportion of benefits received to taxes paid where $0 < BR < 1$.

Apparent net benefits of moving to City B before consideration of deductibility are:

$(T_A - T_B)(1 - BR)$.

Taxes in each city net of deductibility are:

$T_{NA} = T(1 - MTR)$

$T_{NB} = T_B(1 - MTR)$.

Actual net benefits of moving to City B (deductibility is considered) are:

$(T_A - T_B)(1 - BR - MTR)$.

As stated in the text, if $BR + MTR > 1$, then deductibility has produced an incentive to move to City A. If $BR + MTR < 1$, then there is an incentive to move to City B, but it has been reduced by the deductibility provision.

[21]Ronald L. Soble, "Californians Have Mixed Views of Jarvis II Initiative", *Los Angeles Times*, February 10, 1980.

[22]Another, relatively minor, way in which deductibility stimulates state-local spending is through its direct effect on state income-tax collections in those states that allow state income tax deductibility of federal income taxes. For example, the average Iowa taxpayer paid approximately $400 less in federal taxes in 1980 because of federal deductibility of state-local taxes. Assuming the taxpayer had faced a state marginal income-tax rate of 9% (the range for Iowa is from 0.5% to 13%), this meant that the taxpayer owed $36 more in state income taxes for that year. The hypothesis that the overall effect on state tax revenues is minor stems from two observations: (1) Only 16 states allow deductibility of fed-

eral income taxes (of those 16, three states cap this deduction); (2) Average state marginal income tax rates are relatively low. (See Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism*, 1982–83 edition, January 1984, Washington, DC, p. 60.

On the other hand, elimination of state-local tax deductibility will directly *increase* state income tax revenue for those three states that compute tax liability as a percentage of federal income tax liability and for those seven states that use federal taxable income as a starting point for calculating state income tax liability. See Charles W. de Seve and Thomas E. Vasquez, "The Impact of Changes in the Federal Tax Code on State Tax Revenues," *National Tax Journal*, forthcoming.

Inclusion of either of these minor direct effects of changes in state-local tax deductibility on state income tax revenues makes the strong assumption that state legislators will not adjust tax rates in response to these exogenous changes in state income tax revenue.

[23] However, a recent econometric study did not find deductibility to be a significant factor in explaining the relative reliance on income taxes among states. (Walter Hettich and Stanley Winer, "A Positive Model of Tax Structure," Carnegie Mellon Working Paper, 1983.

[24] Edward Moscovitch, "State Graduated Income Taxes—A State-Initiated Form of Federal Revenue Sharing," *National Tax Journal*, Vol. XXV, No. 1, March 1972, pp. 53–64.

[25] Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism*, 1982–83 edition, January 1984, Washington, DC, p. 60. Although most state income taxes incorporate some graduation, the majority are not very progressive. For example, in Maryland the top marginal rate is reached by taxpayers with only $3,000 in net income.

[26] Congressional Budget Office, *Reducing the Deficit: Spending and Revenue Options*, February 1984, p. 209.

[27] U.S. Office of Management and Budget, *Special Analyses, Budget of the U.S. Government, Fiscal Year 1984* (Washington, DC: U.S. Government Printing Office, 1983) pp. G–41 and G–44.

[28] These three proposals have been examined by Nonna A. Noto and Dennis Zimmerman in "Limiting State-Local Tax Deductibility in Exchange for Increased General Revenue Sharing: An Analysis of the Economic Effects," Senate Committee Print 98–77, Committee on Governmental Affairs, U.S. Congress, October 1983 and in "Evaluating Proposals to Limit State-Local Tax Deductibility Based Upon Public Goods Theory and Fiscal Federalism Criteria," working paper, December 1983. This section of the chapter draws heavily on this work by Noto and Zimmerman.

The 1980 figures from the 1980 IRS Individual Income Tax Model file show that 14.6% of the tax savings from deductibility came from the deductibility of the sales tax. We are assuming that this proportion will remain constant.

[29] Other proposed modifications of the deductibility provision that we could have considered are: (1) eliminating deductibility for personal property taxes as well as for sales taxes (the Bradley-Gephardt proposal); (2) disallowing a percentage of otherwise-deductible tax payments (actively considered by the Senate Finance Committee in November 1983); and (3) eliminating deductibility of nonbusiness income taxes (considered by the House in TEFRA discussions.)

[30] Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism, 1982–83 Edition*, January 1984, Washington, DC, Table 28, p. 40. Reliance on the general sales tax as a source of state-local revenue ranges from 24.8% in Hawaii to 0 in those states, such as New Hampshire, that do not levy a general sales tax.

[31] *Table 2* shows that total state-local taxes deducted as a percentage of itemizer's AGI is very similar for all income levels. This makes it more likely that state-local taxes will exceed 1.08% for all income levels in all states.

[32] Nonna A. Noto and Dennis Zimmerman, "Evaluating Proposals to Limit State-Local Tax Deductibility Based Upon Public Goods Theory and Fiscal Federalism Criteria," working paper, December 1983, pp. 18–22. Noto and Zimmerman did not have itemized deduction data by income class by state so the coefficient of variation is actually "the variability among the states of the increase in federal tax liability as a percentage of the aggregate AGI of all tax filers in each state." (p. 18, fn. 18.)

[33] Statistics not shown in *Table 9* were computed from Table 1.1, p. 36, Internal Revenue Service, *Statistics of Income—1980, Individual Income Tax Returns*. Washington, DC: U.S. Government Printing Office, 1982. (Publication 79 (9–82).)

[34] Noto and Zimmerman, "Evaluating Proposals ...", p. 20.

[35] Helen F. Ladd, "Aid to State and Local Governments" in Gregory Mills and John Palmer, eds., *Federal Budget Policy in the 1980s*, Washington, DC: the Urban Institute, 1984, pp. 47–48.

[36] Advisory Commission on Intergovernmental Relations, *1983 Changing Public Attitudes on Government and Taxes*, Washington, DC, p. 11.

[37] Congressional Budget Office, *Reducing the Deficit: Spending and Revenue Options*, February 1984, p. 209.

[38] U.S. Office of Management and Budget, *Special Analyses, Budget of the United States Government, Fiscal Year 1985*. (Washington, DC: U.S. Government Printing Office, 1984.) Table G–2, pp. G–44 and G–47.

Chapter 4

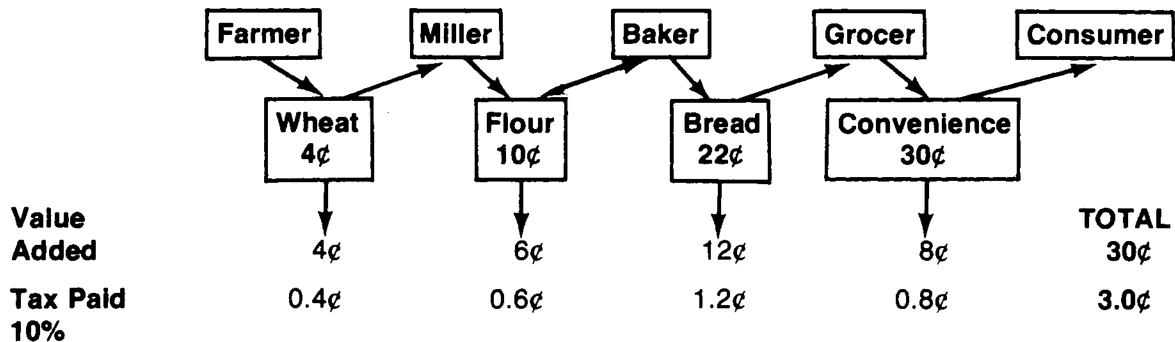
Value-Added Tax

INTRODUCTION

The value-added tax (VAT) has often been included in tax policy discussions and studies concerning methods to supplement federal revenues or replace current revenue sources. Most often the VAT has been mentioned as a replacement for the Social Security payroll tax, the corporate income tax or a portion of the personal income tax. In 1973, the ACIR examined the merits of enacting a federal VAT to provide revenue for property-tax relief and to ameliorate fiscal disparities among school districts. The Commission concluded that federal aid should not be extended for this purpose and therefore a major new source of revenue was not warranted.[1]

In 1979, House Ways and Means Committee Chairman Al Ullman held hearings on a VAT that would have raised about $115 billion to replace a portion of the federal, personal, corporate income and Social Security payroll taxes. (See *Value Added Tax*, a study prepared for the American Retail Federation, Cambridge REsearch Institute, June 30, 1980, Washington, DC, for a detailed description of the Ullman proposal.) In April 1980, after some modifications of the original proposal, a bill was introduced by Ullman (HR 7015, "The Tax Restructuring Act of 1980"). No hearings were held on the bill, however, and the proposal was withdrawn.[2]

Table 4-1
HOW TAXABLE VALUE IS ADDED DURING THE PRODUCTION PROCESS



SOURCE: Richard W. Lindholm, "Value-Added Tax (And Other Tax Reforms)," 1976, Nilson-Hall, Chicago, p. 35.

The VAT has also been advocated as a revenue source for state governments—most often as a replacement for the corporate income tax—by such prominent state-local finance experts as Harvey Brazer, Richard Lindholm, Charles McLure and James Papke. Recently, the VAT has received attention as a means of raising revenue to reduce the large federal budget deficits. While the VAT has been the subject of considerable study, its concept is still alien to the average citizen. This chapter will discuss how the VAT works, its merits and weaknesses as a federal or state revenue source, potential economic impacts and the implications for state-local tax policy.

Concept

The VAT is based, in large part, on the "benefits received," rather than the "ability-to-pay," concept of taxation. Ability-to-pay business taxes use such measures as corporate profits and income of individuals from partnerships, proprietorships and professions. The value-added tax is a levy on the value a business firm adds to goods and services it purchases from other firms. The firm adds this value by handling or processing these purchases with is labor force, machinery, buildings and capital. "Value added" is the difference between a firm's sales and its purchases during an accounting period; or, alternatively, the sum of its wages (including fringe benefits), profits, rent, interest and royalties. Although there is no perfect way to measure the value of government services consumed by the firm, the VAT is generally viewed as a better measure than are other business taxes, because it is based on the output of the firm. Some of this advantage will be lost if the base is eroded by exemptions.

To illustrate how a value-added tax works, consider the processing of wheat into a loaf of bread. (See *Table 4-1.*) The farmer grows the wheat and sells it to the miller for 4¢. If no other purchases were associated with the purchase of the wheat, the value added by the farmer would be 4¢. (In actual practice, purchases such as fertilizer would be subtracted.) The miller turns the wheat into flour and sells it to the baker for 10¢. The value added by the miller is the 10¢ selling price of the flour less the 4¢ paid for the wheat—or 6¢. The baker uses the flour to bake the bread and sells it to the grocer for 22¢—adding value of 12¢. The grocer then sells the bread to the consumer for 30¢, of which 8¢ is the value added by the grocer. At a 10% tax rate, the tax owed by the grocer to the government would be 0.8¢ (3¢ less than 2.2¢ tax already paid on the bread). The total tax paid would be 3¢: 0.4¢ by the farmer, 0.6¢ by the miller, 1.2¢ by the baker, and 0.8¢ by the grocer. If a 10% retail sales tax were

levied instead of a VAT, the tax would also be 3¢, but it would be added to the final selling price and collected from the consumer by the grocer and remitted to the government. In this case, the entire tax clearly falls on the consumer. Although the final outcome is less certain, the same result is likely with the VAT as the tax paid is passed along the production process to finally rest on the ultimate consumer.

In the course of tracing the loaf of bread from the farmer to the consumer, each intermediary subtracted the costs of purchase from the selling price to determine value added. For application to more complex business activities, gross receipts include all receipts from the operation of the business, receipts from the sale of goods and services, and income from professional services. The business then deducts from that total the cost of interfirm purchases. Typically deducted costs would be:

- ☐ cost of merchandise and supplies purchased;
- ☐ advertising, freight and postage;
- ☐ electricity and other utilities;
- ☐ insurance and repairs;
- ☐ travel expenses;
- ☐ losses from bad debts;
- ☐ legal and professional services;
- ☐ taxes and fees (except taxes on or measured by income, taxes withheld or collected from employees, and taxes not related to the business operation); and
- ☐ capital assets, or depreciation—in the case of consumption and income variants of VAT.

The design of a value-added tax proposal requires that four basic questions be answered: (1) How should investment goods be treated? In other words, should the gross product, income or consumption variant be selected?; (2) How should the tax be collected.... The three choices... the tax credit or invoice method, the additive method and the subtraction method; (3) Should the rate be quoted separately or included in the sales price?; and (4) Should all commodities be taxed at the same rate—or, alternatively, which items should be fully taxed and which should be given preferential treatment, either through a lower tax rate (including zero) or complete exemption? These questions will be discussed in detail in the following sections.

Types of Value-Added Tax

There are three types of value-added tax: the gross product, the income and the consumption. The essential distinction between these three variants is the treatment of capital investment. The most likely to be selected if a national VAT is adopted is the consumption-type, so-called because it corresponds closely to the personal consumption account in national income statistics.

The consumption-type of VAT provides the most neutral treatment of capital assets. In the year of purchase, a firm may deduct the full value of the capital asset. Unlike the income-type VAT (where depreciation is deducted each year), the consumption VAT approach permits no adjustment for depreciation because to do so would amount to deducting the cost of the capital goods twice. (In the case of an additive-type consumption value-added tax, as is used in Michigan, depreciation is added back to federal taxable income.)

The name "consumption VAT" is appropriate because the value added represented by capital equipment is not subject to tax until the equipment is being consumed in the process of production. In effect, the immediate tax rebate granted to users of capital equipment imposes the tax only once: on gross proceeds of the sales of the goods and services produced by the capital equipment. Funds are not tied up for tax purposes as under the income variant of this tax.

The income-type VAT does not allow for deduction of a capital asset in the year of purchase. However, the firm is permitted to deduct the amount of depreciation on capital assets that occurs each year. Under the usual definition of the income-type VAT, depreciation is allowed on old or new assets. It could, however, be limited to capital assets purchased after the adoption of the tax.

The gross product-type VAT does not permit a firm to deduct the cost of or the depreciation on capital goods purchased from other firms. Purchases of goods and services from other

firms that are used up in the current year can be deducted. Of the three types of VAT bases, the gross product variant places the heaviest tax liability on capital goods and may discourage capital investment. In addition, if the tax on capital goods is fully shifted forward, the gross product variant imposes a double tax on the final purchase price of the consumer good. Capital goods are taxed at the time of purchase and again when the final product (produced by these capital goods) is sold to the consumer. (See *Tables 4–2* and *4–3* for a comparison of the three types of VAT.)

There are several reasons for preferring the consumption-type VAT. One of the most important advantages is that it would be far easier to apply—a very practical concern for taxpayers and tax collectors. Unlike the income-type base, there is no need to distinguish between intermediate and capital goods. With the consumption variant, the tax credit would be allowed on all business purchases—capital and inventory. Hence, there would be no need to account for each item. The consumption VAT would also avoid the difficult matter of calculating depreciation allowances.

The arguments favoring a VAT over the personal or corporate income taxes are based on

Table 4–2

CALCULATION OF BASE FOR A CONSUMPTION-TYPE VAT, 1982

(in millions of dollars)

Item	Amount
Total Consumption Expenditures in GNP	$1,991,861
Less: Rental Value of Homes and Farms	242,000
Foreign Travel Expenditures (net of expenditures in U.S. by foreigners)	6,600
Religious and Welfare Activities	28,100
Plus: Monetary Interest Paid by Individuals	58,100
Maximum Feasible VAT BASE[1]	1,773,261
Probable Exemptions	
Medical Care—Hospitals and Health Insurance	112,112
Local Transportation, excluding Taxi Cabs	3,853
Clubs and Fraternal Organizations	2,751
Parimutuel Net Receipts	1,717
Private Education and Research	31,503
Services Furnished Without Payment by Financial Institutions	41,725
Food Furnished Employers	6,202
Handling Cost of Life Insurance	23,800
Rent for Tenant-Occupied Nonfarm Dwellings	80,413
Domestic Service	7,626
Potential VAT Base	1,461,559
Possible Exemptions	
Food Purchased for Off-Premise Consumption	282,595
Medical Care (other than hospitals and health insurance exempted above)	109,221
Minimum VAT Base	1,069,743

[1]An argument could be made to include the purchase price of new homes in the maximum feasible VAT base, but this is considered so unlikely it was excluded.

Table 4–3
CALCULATION OF GROSS PRODUCT AND INCOME VALUE-ADDED TAX BASES
(in billions of dollars)

		1976	1979	1982
Gross National product		1,718.0	2,417.8	3,073.0
Less:	**Net Exports of Goods and Services**	−13.8	−13.2	−17.4
	Rental Value of Homes and Farms	−117.1	−169.7	−242.0
	Foreign Travel Expenditures	−4.0	−4.6	−6.6
	Religious and Welfare Activities	−15.4	−20.8	−28.1
	Government Purchases of Goods and Services	−362.1	−474.4	−649.2
Gross Product Value-Added Tax Base		1,205.6	1,735.1	2,129.7
Less:	**Business Transfer Payments**	−7.9	−10.3	−14.1
	Capital Consumption Allowances (nonresidential)[1]	−149.3	−215.1	−306.7
	Statistical Discrepancy	−5.1	−3.4	−0.5
Plus:	**Subsidies Less Current Surplus of Government Enterprises**	1.0	3.4	9.5
Income-Type Value-Added Tax Base[2]		1,044.3	1.509.7	1,817.9
Addendum:	**Corporate Profits Before Taxes**	166.3	252.7	174.2

[1]Because rental values of owner-occupied homes are excluded, depreciation on these structures is excluded.
[2]Indirect business taxes are included.

SOURCE: *Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, July 1983.

the consumption-type VAT. Because capital goods are exempt from taxation, this form of VAT is more conducive to economic growth. (This was a major argument used to sell the Michigan VAT, which will be discussed in depth later in this chapter.) Another advantage of the consumption-type VAT is that it is the variant used by all European countries. This provides some incentive for its adoption in the U.S. and also would allow for some coordination of the U.S. tax system with the tax systems of its European trading partners.

The consumption-type VAT would be more favorable to new and growing firms than would the other two variants, because capital expenditures would be deductible in the year of purchase. And because new and growing firms would tend to have larger capital expenditures than mature firms, there would be a considerable tax advantage. In some cases, the credit for capital expenditures could exceed the tax liability on activity. The credit could result in a refund or could be carried forward to a succeeding tax year.

A final advantage of the consumption-type VAT is that it would provide a more stable yield over the business cycle than would the income variant. This is because the consumption variant does not tax capital goods, which are more volatile than current consumption. (The major share of the tax base consists of labor costs, which tend to be relatively stable over the course of the business cycle.)[3]

Three Methods of Calculation

A value-added tax can be calculated by an additive, subtractive or tax credit (or invoice) method. The *additive approach* builds up the

base by adding up the payments to the factors of production—profits, wages, depreciation, rent and interest paid to individuals. Payments made to other firms are deducted to void double taxation of value added. Under the *subtractive method*, components that do not measure value added—mainly the cost of goods sold (less labor costs)—are subtracted from gross receipts to determine the taxable base. A third method—most widely used by countries with VATs—eliminates the need for computing the amount of value added and directly determines the amount of the tax. Under this *invoice or credit method*, each firm (1) multiples its sales by the applicable tax rate and records the resulting tax on its sales invoice, and (2) subtracts the amount of VAT shown on the invoices for its purchases from other firms from the aggregate amount of the VAT charged to its customers. The difference is the amount the firm must pay to the government.

Because the tax-credit (or invoice) method is most likely to be used if a national VAT is adopted, the discussion in the chapter is, for the most part, based on this method of calculation.

The tax-credit method has the advantage of self-enforcement—although this is not as important in the U.S. as it is in Europe, where tax avoidance is thought to be more of a problem. Another advantage claimed for the tax-credit method is that, if carried through to the retail stage, it would ensure that the final consumers, those who are likely to bear most of the final burden of the tax, would know how much VAT they were paying.

There are also some important advantages to the *additive approach*—the method used by Michigan—particularly for the United States, which is used to a different type of tax system than is Europe:

- ☐ Its main advantage is simplicity. The concepts of profits and wages are already used by businessmen and conform with conventional accounting practices.
- ☐ It identifies the components of value added. It makes explicit what is taxed—items such as profits, wages and interest.
- ☐ Some economists believe it lessens the price impact of a tax substitution.[4] One of the main criticisms of the VAT is that it is inflationary—the argument being that businessmen view it as a substitute for a sales tax and would pass it directly forward to the consumer in the form of higher prices. If the tax were viewed as a substitute for profits taxation, it is less likely that it would be passed directly forward to the consumer. With the additive method, it is more likely that the change would be viewed as a switch from one form of profits taxation to another.
- ☐ It is more appropriate for taxing financial institutions. Calculating the value added of financial institutions is difficult under the other methods. For a nonfinancial firm, interest paid is included in value added because it is a payment to capital; but for a financial institution, interest paid is similar to the cost of goods sold, which is not a part of value added. The additive approach allows the treatment of interest to be reversed—that is, interest paid is deducted from the base and interest received is added to the base. The major problem with this approach is that interest paid by a financial institution to a nonfinancial business will escape taxation.

As mentioned above, the tax-credit or invoice method of calculation is the favored method for a national VAT, largely because this is the method used in Europe.[5] However, the additive approach has much to recommend it and should be given serious consideration.

Hidden Vs. Separate Statement of Tax

Except in Denmark, the European VAT is hidden to the final consumers. While the price paid by a European consumer upon purchase of goods or services includes the applicable tax, this fact is not explicitly stated as a part of or an addition to the purchase price. Thus, the European VAT experience contrasts with state retail sales taxes, where the tax rate is added to the purchase price.

The consumption VAT is not inherently different from the retail sales tax, with regard to whether it can be hidden in the price or stated separately. Of course, the VAT is not the only tax hidden in purchase prices. Any tax that is passed on to the consumer is also hidden.

The argument that the consumption VAT should be hidden is difficult to defend because it is generally agreed that the tax is intended to be shifted forward to the final consumer. Furthermore, hiding the value-added tax in the purchase price would present serious problems for regulated industries. Such enterprises would be forced to seek authority to increase prices—a process that would create additional costs for these industries and postpone recovery of the higher tax costs for some time. This process could be avoided if a value-added tax were separately stated.

A separate statement of the tax seems preferable for several other reasons: If a single rate of tax were applied to a comprehensive base, explicit quoting of the tax should facilitate rebates on export items and increase consumer pressure to keep prices no higher than required for businesses to recover the amount of the tax. Moreover, it would be cheaper for businesses to state the tax separately than to readjust product prices, especially if the VAT were to provide preferential treatment for certain items.

There is, however, one possible advantage to including the tax in the purchase price. As will be discussed later in this chapter, some state-local officials fear that a national VAT will limit use of state-local sales taxes. This is because a VAT is generally viewed as a form of retail sales tax and increases at the national level might affect public acceptance of higher sales taxes at the state and local level. However, a "hidden" VAT is more likely to be viewed as a business tax, which could blur the connection between a national VAT and state and local sales taxes and alleviate this problem. This possibility was raised in ACIR's 1973 report on the VAT, which pointed out that:

> Despite the economic case to the contrary, the very real threat of intrusion or preemption remains. This is particularly true if the federal tax is made explicit, rather than being buried in the product price.[6]

This point is discussed in more detail in a later section.

Areas of Preferred Tax Treatment

Most tax policy experts agree that the preferred form of the VAT is a broad-based, single-rate tax. Efforts to achieve social or administrative goals by providing favored treatment for certain goods and services tend to erode the basic strengths of the tax: productivity, neutrality, and administrative simplicity. Erosion of the tax base also requires the use of higher tax rates which magnify the weaknesses of the tax and increase compliance problems.

Although there are strong arguments for keeping preferential tax treatment to a minimum, four reasons, falling into four general areas—economic, social, political and administrative—can be offered for providing such treatment. The first reason, which is economic, and possibly most important, is concern about regressivity of the VAT. Because the VAT is a tax on consumption and low-income persons spend more of their income on consumption, they bear a proportionately heavier tax burden than do high-income persons. Low-income persons also spend a higher proportion of their income on necessities and less on luxuries. Special treatment of necessities reduces the regressivity of the VAT. Almost all European countries provide favored treatment for necessities such as food, medicine, and utilities in an attempt to make the tax less regressive. Second, social values, tradition and political influence often lead to special treatment of charitable, religious and educational institutions, farmers, and products such as books, newspapers and communications. Political trends create pressure for exemptions related to important national objectives, such as saving energy, promoting mass transit or creating jobs. Third, for administrative reasons, it may make sense to provide an exemption for small businesses, because the tax collected may be outweighed by the processing costs. Fourth, certain types of businesses, such as financial institutions, may be exempted because it is difficult to apply the tax to them.

The Michigan VAT provides preferential treatment for many types of business, largely

because the transition from the old tax system imposed large increases on certain types of businesses—particularly labor-intensive, low-profit, and unincorporated businesses. In addition, a $40,000 small-business exemption is provided for administrative reasons and to reduce the tax burden on small businesses. (Agriculture, which was covered by the tax originally, was exempted in 1977 for political reasons.[7])

The arguments for preferential treatment listed above are difficult to overcome, as has been seen in the cases of Europe and Michigan. However, as suggested above, there are important reasons to resist preferential treatment:

- Each time it is provided for one business, it becomes more difficult to deny other businesses similar treatment. A progressive erosion of the tax base can be the result.
- It erodes the most attractive features of the VAT—its productivity and neutrality. The more exemptions or deductions granted, the higher the rate must be to raise equivalent revenues. The higher the rates, the greater likelihood that consumer preferences will be distorted and that tax evasion and avoidance will be encouraged.
- The use of exemptions complicates the administration of the tax. If a firm sells both taxable and exempt goods, sales by the firm must be separated; if a firm produces both taxable and exempt goods, purchases of goods and services must also be separated because the portion of such purchases used in the production of exempt goods is not eligible for the tax credit. Thus, the self-enforcing feature of the VAT is weakened by the use of exemptions, while taxpayer costs and possibilities for tax evasion are increased.

Several methods exist for the granting of preferential treatment:

Exemptions: An exemption does not eliminate the tax liability. The final seller of exempt goods and services neither pays a tax on the sale of the product nor receives a credit of taxes paid on his purchases. If the tax is passed forward to the consumer, the final price reflects taxes paid on value added earlier in the production process.

Zero Rating: This method applies a rate of zero to the sale of goods and services selected for preferential treatment—such as food and medicine—but allows a full deduction for taxes paid on purchases related to the sale. Had no VAT been levied, the result would be the same.

Advance Zero Rating: This is the same as zero rating, except that it is applied earlier in the production process. From that point on, no additional VAT is paid and a credit is allowed for previous tax payments. At this and subsequent sales transactions, the sales price is reduced accordingly.

Differential Rates: The final seller of products and services that have a higher or lower rate applies the appropriate rate to the total value of the final product and deducts a credit for all previous VAT payments. In order to actually reduce or increase the total VAT paid on an item, the differential rate must be applied to the final stage of the distribution process. Reducing a rate at intermediate stages of a production process does not reduce the total tax due, or the price to the final consumer, if the retailer applies the standard rate to the final sale. Instead, it changes the timing of the tax payments and shifts the responsibility for the VAT to another stage of the production/distribution process.

If the Ullman bill is a guide, many of the special considerations discussed in this section are likely to be included in a national VAT. The Ullman VAT legislation provided a zero rating for food (at home consumption), housing and medical care. In addition, that bill directed the Secretary of the Treasury to prescribe regulations under which these items could be advance zero rated (prior to the retail sale). Zero rating was also provided for nonretail sales of

farmers and fishermen, mass transit in urbanized areas, exports, interest, and sales of property or services to a governmental entity. Charitable, religious and educational organizations exempt for federal income tax purposes were exempt from the VAT. A small business exemption of $20,000 was also included in the legislation.

There are three major sectors of the economy that are likely candidates for preferential treatment for equity or administrative reasons: housing, government and financial institutions. Each of those areas is discussed in detail below.

Areas of Special Concern

HOUSING

To apply the VAT to consumption expenditures for housing is one of the more troublesome areas posed by this tax. The difficulties encountered stem from the nature of the item and not the application of the tax. Ideally, the VAT would be applied both to cash rentals and to owner-occupied housing, where rental payments would have to be imputed. This ideal approach, however, is difficult to achieve because, as an imputed item of consumption, the rental payments of owner-occupied housing would be difficult to tax in that no money actually changes hands. Moreover, if these "payments" were subject to the VAT, the number of taxpayers would increase tremendously, as would the administrative costs. Congress has never given serious consideration to including these payments under the income tax and it is unlikely that they would be included in the base of a national VAT. Although in principle, it may be logical to tax imputed rents, the opposition from homeowners—already upset by high property taxes and high mortgage rates—would be difficult to overcome. In addition, because housing is a higher percentage of income for low-income persons than for high-income persons, there would be pressure to exempt it in order to mitigate the regressivity of the VAT.

The key to applying the VAT to the housing sector rests on finding a solution to the tax treatment of owner-occupied housing. Taxing imputed values—the preferred approach—appears unrealistic; taxing purchases of new homes—while feasible—poses inequities between purchasers before and after adoption of the tax. (State sales taxes generally covers only the materials used to construct a home.) It is clear that the VAT should not be applied to rental housing only. To do so would further compound the inequities between owners and renters caused by the income tax (interest and property tax deduction for homeowners) and add to the regressivity of the VAT.

GOVERNMENT

The estimates of the potential VAT tax base presented in this chapter exclude all government purchases. If the federal sector is not excluded, the estimated net gain in revenues to the federal government would be inflated. This is because, if value added related to government purchases were taxed and the tax shifted forward, prices paid by government would increase thereby offsetting the increased federal revenues generate by the broader tax base.

A good case can be made for excluding the government sector. Excluding both purchases and value added by government avoids taxation of public spending and prevents the government from participating in a mere transfer of funds.

With regard to the state-local sector, there are two further considerations. The most obvious is that it has been national policy to provide aid to state-local governments. To tax these governments would add to their financial needs, and likely strain relationships between the levels of government. In addition, imposing a federal tax on state and local governments would raise Constitutional questions of intergovernmental immunity—whether the federal government has the authority to impose a VAT on state and local governments.

However, where public agencies provide goods and services that compete with those sold by the private sector, exemption for government would create an unfair competitive advantage. State and local governments, for example, sell electric, gas, and water power, and provide transportation and leisure services (state park lodges, etc.). These items should be taxed to avoid giving the public sector a competitive advantage.

On balance, taxation of government activities would both provide more equitable treatment in instances where the public and private sectors are in competition and relieve businesses of the need to separate government and nongovernment sales. However, from a practical standpoint it is unlikely that government activities would be included under a VAT. One suggestion for the reduction of administrative problems for businesses selling to government would be to apply the tax to state and local government purchases and then refund to them the amount of the tax paid.

FINANCIAL INSTITUTIONS

One of the more difficult problems in designing a VAT is the treatment of financial institutions. (This assumes use of the tax credit method, the problem being much less serious if the additive approach is used.) The source of these problems is that financial institutions provide services for which value added is not easily identified. There is also a problem, moreover, of maintaining equal treatment of lending by financial institutions and by individuals, because lending by individuals would be even more difficult to tax.

The services of many financial institutions are provided at little or not cost to the depositors or shareholders who permit those institutions to use their funds. To that extent, the profits of the financial institutions come from investment income rather than from fees or charges collected for services rendered. In a sense, investment income is merely held by financial institutions acting in their fiduciary capacity for depositors and shareholders. It would be very difficult to determine the income of financial institutions to be included in the VAT base and to allocate the tax on purchases when computing credits for taxes paid by other firms. For this reason, most European countries exempt some or all financial institutions from the VAT.

Perhaps the best way to handle financial institutions under the tax-credit method of calculaion would be to allow a credit for taxes paid on all of their purchases and then tax them, using the additive or subtraction method. The financial institutions would be double-taxed only to the extent that the interest paid for funds reflected VAT payments and this amount would likely be small, as most funds would come from households and government agencies, which would pay no VAT. Although the free services provided by financial institutions could not be taxed directly, it is likely that these costs are reflected in the interest rates charged on loans and could be taxed if the treatment of interest were reversed—as is done under the Michigan VAT. (Interest received would be taxed and interested paid would be a deduction.)

Estimates of VAT Bases

To develop realistic estimates of the VAT base, each of the three national income accounts—gross national product, national income and personal consumption—were adjusted to produce a "maximum feasible" tax base. Essentially, the "maximum feasible base" excludes exports, includes imputed items (except owner-occupied homes), and provides for a very restricted list of exempt items. This base specifically excludes the following items:

- ☐ *Net Exports.* The VAT would not apply to exports but would be levied on imports; therefore, only net exports need be deducted.
- ☐ *Rental Value of Owner-Occupied Homes (including farms).* This item could be included in the VAT base, but because these rental values are imputed, serious administrative problems would be created. Cash rents are not imputed values and are kept in the base.
- ☐ *Net Foreign Travel Expenditures.* Spending by foreigners visiting the U.S. would be included in the base, but spending by U.S. residents aboard would not be covered by the VAT.
- ☐ *Religious and Welfare Activities.* These activities are generally not subject to taxation.
- ☐ *Government Purchases.* The amount spent by the federal government is excluded to determine actual net yield of VAT. If this sector were included, prices paid by government would increase, raising expendi-

tures and producing no net revenue gain. State and local government is excluded both because taxing these purchases is inconsistent with federal policy of providing aid to state and local governments and because such taxation would raise constitutional questions.

The above exemptions total $943.3 billion based on 1982 data, 30.7% of GNP, and 47.3% of total consumption expenditures. While these amounts could be included in a VAT base, they are excluded in order to develop a reasonable estimate of the yield from a very comprehensive VAT. From this point, a number of other potential exemptions can be evaluated on their economic, social, political and administrative merits. A list of exemptions is included in *Table 4–2* under the heading of "Probable Exemptions." Two additional exemptions are listed under the heading of "Possible Exemptions." Although these distinctions are arbitrary, the first list attempts to identify those exemptions that are almost certain to be excluded from the VAT base—based, in part, on the European and Michigan experience with the VAT and the Ullman VAT proposal. The reasons for providing preferential tax treatment for certain items were discussed earlier. The following outline classifies these exemptions on this basis:

- Economic (Reduce Regressivity):
  - Medical care
  - Rent
- Social (Normally Exempt from Taxes):
  - Local transportation
  - Clubs and fraternal organizations
  - Private education and research
- Administrative (Difficult to Tax):
  - Services furnished by financial institutions
  - Food furnished employers
  - Handling cost of life insurance
  - Domestic service
- Other (subject to special taxation):
  - Parimutuel net receipts

The two possible exemptions listed are food purchases for off-premise consumption and medical care, other than hospitals and health insurance. Because removal of these items from the VAT base would reduce the regressivity of the tax, there would be considerable political pressure to do so. While these items were selected for favorable treatment in the Ullman proposal, preferential treatment is not granted under the Michigan VAT.[8] The ability to hold these items in the base may depend on whether the Congress would accept low-income tax credits as an alternative to preferential treatment under the VAT.[9]

Estimated Tax Yields

Using the maximum feasible tax bases for 1982, the gross product variant would have yielded $21.3 billion per one percentage point in rate, the income variant $18.2 billion per 1%, and the consumption variant $17.7 billion per 1%. The probable exemptions listed for the consumption variant would reduce the yield to $14.6 billion per 1%, and the additional possible exemptions would further reduce the yield to $10.7 billion per 1%. For purposes of this report, the most likely yield is assumed to be $14.6 billion. Based on Chase Econometrics estimates of consumption growth from 1982 to 1985, the 1985 yield for a consumption-type VAT would be $19 billion per 1%. This would be the gross yield of the tax before allowing for the economic effects of additional taxes—effects which would be substantial as outlined in the section on the economic effects of the VAT *(Appendix B)*. The reason for this is that the contraction in output and incomes caused by higher taxes would reduce the yield from other federal taxes.

Distribution of Tax Burden by Industry

Table 4–4 provides 1980 data on the industry distribution of a 1% VAT as a percentage of business receipts and net income and the dollar liability per firm. Because explicit value-added numbers are not available for all industry classes, national income without the capital consumption adjustment is used. (This corresponds closely to the gross-product variant of the VAT.) The data on business receipts, net income, and number of firms are from published Internal Revenue Service data. The national income numbers are from the Commerce Department's Bureau of Economic Analysis. While the two sets of data may not be completely con-

sistent, they are adequate for the purposes of this analysis. However, because no adjustment was made for likely exemptions such as food, rent and medical care, the value-added numbers for some industries are a little higher than would occur in actual practice.

The data indicate that, on average, a 1% VAT would take .27% of business receipts and 5.9% of net business income. (These numbers are consistent with the Michigan experience with the VAT.) The services sector would experience the heaviest tax burden (excluding finance, insurance, and real estate, which is a special case), wholesale trade the lightest. This is due, in large part, to the fact that labor costs (the major component of value added) are a large share of total output in the services sector and a relatively small share of output in the wholesale trade sector. The tax burden for the financial sector is high because the value-added numbers include interest paid, which is the largest expense for this industry. (An ad-

Table 4–4

VALUE-ADDED TAX AS SHARE OF BUSINESS RECEIPTS AND NET INCOME BY INDUSTRY CLASS, 1980[1]

(per 1% tax rate)

Industry Class	1% VAT (billions)	VAT as percent of Business Receipts	VAT as percent of Net Income[2]	VAT Liability Per Firm
Agriculture, Forestry and Fishing	$0.61	0.36	25.2	$ 175
Mining	0.38	0.20	9.9	2,095
Construction	1.07	0.33	7.5	758
Manufacturing	5.26	0.23	4.1	9,247
Lumber and Wood Products	0.15	0.27	10.8	1,607
Printing and Publishing	0.28	0.39	5.1	2,862
Machinery, Except Electrical	0.68	0.42	4.9	11,310
Other	4.15	0.20	3.9	13,069
Transportation, Communications and Public Utilities	1.71	0.20	7.7	2,997
Wholesale Trade	1.37	0.12	4.4	2,130
Retail Trade	1.79	0.18	9.5	651
Finance, Insurance, and Real Estate	2.91	0.83	8.2	1,335
Services	2.78	0.66	5.9	582
Hotels and Other Lodging	0.14	0.52	3.9	1,489
Personal Services	0.13	0.52	3.9	161
Auto Repair, Services and Garages	0.11	0.28	6.5	340
Business Services	0.53	0.53	7.9	485
Amusement and Recreation Services	0.09	0.25	9.7	228
Professional and Other	1.78	0.93	5.2	827
All Industries	17.88	0.27	5.9	1.065

[1]The data used in this table to represent value added are national income without the capital consumption adjustment which corresponds closely to the gross product variant of the VAT.
[2]Includes firms that report negative income.
SOURCE: *Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, July 1983, p. 69. *Partnership Returns*, Statistics of Income, 1980, Internal Revenue Service, Table 1, *Sole Proprietorship Returns*, Statistics of Income, 1979–1980, Internal Revenue Service, Table 10; *Corporation Income Tax Returns*, Statistics of Income, 1980, Internal Revenue Service, Table 2.

Table 4–5
DISTRIBUTION OF BUSINESS RECEIPTS AND NUMBER OF FIRMS BY FORM OF ORGANIZATION AND INDUSTRY CLASS, 1980

	Corporations		Unincorporated Businesses	
Industry Class	Percent of Business Receipts	Percent of Firms	Percent of Business Receipts	Percent of Firms
Agriculture, Forestry and Fishing	28.5	2.3	71.5	97.7
Mining	88.1	14.6	11.9	85.4
Construction	79.8	19.3	20.2	80.7
Manufacturing	98.7	42.6	1.3	57.4
Transportation, Communications and Public Utilities	95.2	19.5	4.8	80.5
Wholesale Trade	94.0	43.7	6.0	56.3
Retail Trade	81.0	18.7	19.0	81.3
Finance, Insurance and Real Estate	73.2	22.6	26.8	77.4
Services	64.5	14.1	35.5	85.9
Hotels and Other Lodging	63.4	20.4	36.6	79.6
Personal Services	53.7	5.6	46.3	94.4
Auto Repair, Services and Garages	70.0	23.5	30.0	76.5
Business Services	80.2	16.2	19.8	83.0
Amusement and Recreation Services	78.1	11.8	21.9	88.2
Professional and Other	54.3	14.9	45.7	85.1
All Industries	88.1	16.1	11.9	83.9

SOURCE: *Partnership Returns*, Statistics of Income, 1980, Internal Revenue Service, Table 1; *Sole Proprietorship Returns*, Statistics of Imcome, 1979–1980, Table 10; *Corporation Income Tax Returns*, Statistics of Income, 1980, Internal Revenue Service, Table 2.

justment in the method of taxation is required for this industry because interest paid by financial institutions is similar to raw materials costs for other industries and these costs are not included in value added.)

The data on the VAT liability per firm are indicative of the size of the firms in the various industries: The average tax liability per firm is highest in the manufacturing sector and lowest in the agricultural and service sectors.

Because the net income numbers include data from firms reporting losses, total net income in each industry is reduced. One result is that the averages hide very large variations in the tax liability as a percentage of net income. The tax burden for a firm reporting a loss would be infinite, whereas the burden for a profitable firm would be relatively small. This is one aspect of a VAT that creates concern because many businesses are not used to paying state or federal taxes when the business is losing money.

A major difference between a VAT and a corporate income tax is that the VAT applies to all businesses, whereas the corporate income tax covers only one segment of the business community. As *Table 4–5* indicates, 83.9% of all businesses are unincorporated. These firms, however, account for only 11.9% of total business receipts. Only in the agricultural sector do unincorporated firms produce a larger share of business receipts than do corporations. This points up the fact that although the VAT covers many more firms than does a corporate income tax, the majority of the firms brought under the tax umbrella are small. As can be seen in *Table 4–6*, 91.3% of all sole proprietorships and 72.7% of all partnerships have business re-

Table 4-6

BUSINESS RECEIPTS OF $100,000 OR LESS, BY INDUSTRY CLASS AND FORM OF ORGANIZATION, 1980 (percent of all firms)

Industry Class	Corporations	Sole Proprietorships	Partnerships
Agriculture, Forestry, and Fishing	41.1	93.4	63.5
Mining	38.8	88.4	75.8
Construction	32.4	89.3	61.6
Manufacturing	21.1	86.8	68.4
Transportation, Communications and Public Utilities	40.4	91.6	65.2
Wholesale and Retail Trade	23.5	81.6	55.6
Finance, Insurance and Real Estate	71.7	97.1	83.0
Services	45.9	95.1	69.0
All Industries	40.1	91.3	72.7

SOURCE: *Partnership Returns*, Statistics of Income, 1980, Internal Revenue Service, Table 4; *Sole Proprietorship Returns*, Statistics of Income, 1979–1980, Internal Revenue Service, Table 11; *Corporation Income Tax Returns*, Statistics of Income, 1980, Internal Revenue Service, Table 7.

ceipts of $100,000 or less. Many of these firms would likely be eliminated from taxation by a small business exemption ($40,000 is used in Michigan) to save administrative costs.

European Experience With VAT

The VAT has been a major source of revenue in Europe for a number of years. All members of the European Economic Community (EEC)—Belgium, Denmark, France, Germany, Ireland, Italy, Luxembourg, Holland and United Kingdom—have adopted the VAT. Outside of the EEC, Austria, Norway and Sweden use the VAT. Although the reasons for adoption of the VAT in Europe are not really relevant to the American experience, valuable lessons can be learned from the European experience. The VAT was adopted in Europe to replace cascade-type turnover taxes, to harmonize the tax systems of common market nations, to improve compliance, and to facilitate broader tax adjustments which were difficult to make with cascade taxes.

When the EEC was formed in 1957, all members except France imposed a cascade turnover tax. The tax was levied on each sale, which, because there was no relief for prior-stage taxes, resulted in multiple taxation. For example, if firm "A" sold $100 worth of goods to firm "B", the tax at a 10% rate would be $10. Then if firm "B" added $100 of value to the same goods and sold them to firm "C", the entire $200 would be taxed, adding another $20 in tax. The result is that the first $100 of value added is taxed at a 20% rate. With a VAT, the $10 paid by firm "A" would be credited to firm "B" and the tax owed would be $10, rather than $20. Another major problem was that because the amount of cascade tax on a particular product was indeterminate, member states did not know how much tax could be imposed on imports or rebated on exports as provided for in the treaty establishing the EEC (or common market as it more popularly known). The cascade tax also promoted vertical integration, because the fewer the firms involved in the production-distribution process, the lower the tax.

The Newmark Committee was appointed in 1960 to study the extent to which the tax systems of the member states conflicted with the establishment of a common internal market. The committee recognized the defects of the cascade turnover tax and recommended the adoption of the VAT. The retail sales tax was not recommended because of administration and compliance problems, due mainly to the large number of small retailers that would be involved.[10] The EEC issued two directives in 1967. The first required member states to replace their turnover taxes with a VAT— specif-

ically the invoice or credit method of calculating the tax liability—by January 1, 1970. The second detailed the type and structure of the VAT to be used. The tax was imposed on imports and exports were exempt. A consumption-type VAT was also specified—an immediate deduction was allowed for the tax paid on purchases of capital equipment. A sixth directive issued in 1979 provided for a more uniform VAT for EEC members. (See *Table A–1* in *Appendix A* for a description of VAT levied by members of the EEC.)

All of the European countries levying the VAT allow preferential treatment for certain types of goods and services. This is done by differential rates, zero rating, or complete exemptions from the base. Those exemptions generally fall into two categories—activities performed in the "public interest" (medical/dental and educational services) and those related to finance and real estate. In contrast to a zero rate, an exempt transaction bears some tax. This tax is charged on purchases of the exempt supplier, but not on the value added by the exempt organizations. Multiple rates are used by every country except Denmark. Higher rates are usually imposed on luxury items such as automobiles, jewelry, furs and television sets and lower rates on necessities such as food, medicine, clothing and utilities. For example, France imposes a tax of 33-1/3% on luxury items; 7% on books, medicine and food for off-premise consumption; 5.5% on water and certain food and dairy products; and 18.6% on all other items.

While certain items will necessarily require preferential treatment under a VAT for economic and political reasons, European tax experts strongly emphasize the administrative advantages of a single-rate tax. Multiple rates and exemptions reduce the regressivity of the VAT but complicate the design and administration. As with the retail sales tax, serious difficulties arise in separating similar items into taxable and nontaxable categories. Multiple rates and exemptions also distort consumption in ways that are unlikely to promote economic efficiency. Most European observers agree that the disadvantages outweigh the gains from reduced regressivity. Aaron echoes these sentiments:

> The central technical lesson of European experience is that multiple rates can be used to eliminate the regressivity of the value-added tax, but that the penalties in administrative complexity, increased compliance costs and distortion in consumption taxes have been high and probably unjustified ... it would be preferable to use other taxes and transfer payments to alleviate the undesirable distributional consequences generated by a value-added tax imposed at uniform rates.[11]

A major concern about the VAT is that it will cause prices to rise. While the European experience is not conclusive, it does provide some evidence of the price effect. When the VAT replaced another sales tax, it had only a minimal impact on the price level; but when the VAT was increased, or when it replaced an income tax, there was an increase in prices. Germany's changeover to the VAT did not have a perceptible impact on prices, perhaps because the tax was introduced during a recession. Canned goods and textiles became cheaper and some services—such as haircuts and restaurant meals—with a high proportion of value added, became more expensive as the 11% VAT replaced a 4% cascade tax. Prices in the Netherlands rose 5% in the first three months following the introduction of the VAT, and 6.5% during the first year. About 1.5 percent points of this increase was attributed to the VAT. In Belgium prices increased 5.6% (1971), about in line with price increases in countries that did not impose the VAT that year. In Sweden there was no measurable increase in prices. In the United Kingdom, prices rose 1.9% in the month the VAT was introduced, but not all of this increase was attributed to the VAT. One estimate from a French economic model is that a one percentage point reduction in the rate of the VAT would reduce consumer prices by 0.7%.[12] The conclusion drawn by observers of the European VAT experience is that an increase in the VAT will increase prices by about the amount of the tax increase.[13]

The European experience provides little evidence on the economic impact of the VAT, other than the price effect. European studies have confirmed that the VAT is proportional with respect to consumption and regressive

with respect to income. However, they do provide one important lesson from Europe, as discussed above: The regressivity of the VAT can be moderated or eliminated by differentiating rates and exemptions, although this is not always the most desirable approach.

State Experience With VAT

MICHIGAN

The only state that has had actual experience with a VAT is Michigan, which adopted a modified VAT in 1976. The current Michigan VAT represents a return to the philosophy of taxation which was in effect in Michigan from 1953 to 1967. In those years Michigan imposed the business activities tax (BAT), which is also a form of value-added tax. Aside from the different types of exemptions allowed, the major differences between the VAT and the BAT is in the treatment of capital investment and depreciation. *The Michigan VAT* (consumption-type) allows a complete write-off for capital investment in the first year and requires that depreciation be included in the base in subsequent years. The BAT allowed no capital investment write-off and did not include depreciation in the tax base. (A 1955 amendment allowed a deduction for depreciation on real property.)

The BAT was repealed in 1967 for two basic reasons: (1) It was felt that the new personal income tax should be complemented by a tax on corporate income; and (2) Many small and service-type businesses were strongly opposed to the BAT because it was not based on "ability to pay." Many businesses objected to paying taxes in loss years and were able to develop considerable opposition to the tax.

The current Michigan VAT is the consumption variant and is calculated by the additive method. *Figure 4–1* provides detail on the calculation of the Michigan VAT. The revival of the value-added concept of taxation in Michigan, after such a short hiatus, can be attributed to three main factors: First, the experi-

Figure 4–1
HOW TO COMPUTE THE MICHIGAN VALUE-ADDED TAX

Add: Total Compensation = Salaries and Wages (W–2), F.I.C.A. Payments, Unemployment Insurance Tax, Worker's Compensation Premium, Health Insurance Premium, Pension, Profit Sharing Cost.

SUBTOTAL

Add: Taxable Income from Federal Return
Add: Net Interest (paid less received)
Add: All Depreciation Taken on Federal Return for Assets Purchased after 1/1/76

SUBTOTAL: GROSS TAX BASE

Subtract:	Full Value of Real and Personal Property, Capital Acquisitions
SUBTOTAL:	ADJUSTED GROSS TAX BASE
	Apportioned by Three-Factor Formula to Determine Michigan Tax Base
SUBTOTAL:	MICHIGAN TAX BASE
Subtract:	Small Business/Low-Profit Exclusion, if Eligible
SUBTOTAL:	ADJUSTED TAX BASE
Subtract:	Gross Receipts Limitation, if Eligible
Subtract:	Labor Intensity Deduction, if Eligible[1]

TOTAL TAX BASE
MULTIPLY BY TAX RATE .0235
TAX LIABILITY

[1]Calculated on the gross tax base above.

ence with the corporate income tax was not very favorable. Michigan depends heavily on durable goods industries whose profits traditionally have fluctuated with the business cycle. This volatility, which created serious fiscal problems in Michigan, was partly responsible for the increase in income tax rates in 1971. Fluctuations in corporate income tax collections also caused problems during periods of economic recovery by creating a large surplus that was sometimes hastily spent, thereby raising the expenditure base and in turn creating problems during the next downturn in the economy.[14] Second, there was considerable concern about the condition of the Michigan economy and the poor business climate in the mid-1970s, and the proponents of the VAT claimed it would promote capital investment and create new jobs. Also, a number of surveys indicated that many businessmen—citing an unfavorable tax structure as a negative factor—ranked Michigan very low as a state in which to expand or locate a new business. The proponents of the VAT convinced a large number of legislators that the Michigan business structure was holding back economic expansion and that a major overhaul was needed to encourage greater employment opportunities in that state. Third, Michigan was facing a major budget deficit and the enactment of the VAT generated a one-time revenue gain of about $200 million due to an overlap with taxes replaced by the VAT. (On a calendar year basis, the yield of the VAT equalled the yield of the taxes replaced.) This was more acceptable to most legislators than was the alternative of raising rates of existing taxes or eliminating various business exemptions.

There is little evidence that the Michigan VAT has had much effect on the Michigan economy, either on prices or capital investment. The major advantage has been the stability of the VAT, which has been particularly important for a state with a highly cyclical economy. While the VAT has coexisted with the Michigan sales tax without controversy, it has generated considerable opposition from service businesses—particularly from professionals, low-profit businesses, and small businesses in general. This is because these businesses paid little tax under the previous tax system and object to paying a tax when their business is not profitable.

Experience with VAT in other states

In 1970, the *West Virginia* legislature passed a VAT measure. That VAT—an additive-type—was entitled "a value-added income tax," largely to preclude comparison with the retail sales tax, which was a major source of revenue for the state.[15] The legislation, however, was vetoed by the governor.

In 1969 and 1971 legislation was unsuccessfully introduced in Oregon providing for a modified subtractive-type VAT. The bills were seen as a method of initiating additional taxation of transactions in Oregon without enacting a retail sales tax. (Oregon still does not have a retail sales, a general excise or a business gross receipts tax.)

Hawaii has developed the general transaction-tax base to a greater degree than has any other state, with the possible exceptions of Washington and Nevada. The general excise tax, the gross receipts tax or the gross-turnover tax, possess serious weaknesses that VAT largely overcomes. As a result, a number of studies for the legislature have concluded that Hawaii should replace its general excise-tax system with a tax largely based on the principles of the VAT.

Key Economic and Tax Policy Issues

PRICE EFFECT

A major argument used against the VAT at the national level is that it would be inflationary. A more valid criticism would be that the imposition of a VAT as an additional revenue source is likely to result in an increase in prices. Inflation is defined as a persistent increase in the general levels of prices. This can only be caused by changes in monetary and fiscal policy. The broad-based neutral nature of the VAT makes it easier to pass forward than other business taxes, because almost all businesses would be faced with similar cost increases. The corporate income tax, for example, is more likely to have a differential impact on competing firms, making it more difficult for the firms experiencing the largest increases in costs to pass those costs along to the consumer. If the VAT is passed forward to the consumer—which is the most likely outcome—the result will be a one-time price in-

crease for goods and services covered by the tax, roughly equal to the rate of the VAT. The European experience with the VAT, discussed earlier in this chapter, seems to support this conclusion.

If the VAT is not fully passed forward to the consumer, it will likely be because of tight monetary and fiscal policies. In this case, profits and/or wages and employment will fall. Higher unemployment may lead to more expansionary monetary and fiscal policies, which will allow the VAT eventually to be passed forward to the consumer. The analysis becomes more complicated if the VAT is used as a replacement for other taxes. The key then becomes the assumptions about the shifting of the taxes being replaced by the VAT. The issue of the VAT and the corporate income tax are addressed later in this chapter.

NEUTRALITY

In a sense, no tax is neutral because the price elasticities for each firm's products are different and, therefore, the ability to pass taxes forward will vary for each firm. However, within the public finance definition of the term, the VAT is more neutral than any other major revenue source. In its pure form, the VAT is a neutral tax in that all factors of production and all forms of business are taxed equally. The virtue of this is that the VAT is not an important factor in business decisions. In contrast, the federal corporate income tax, for example, has a major impact on the way a business behaves. This is because a high tax rate is levied on one factor of production and on one type of business organization. The corporate income tax discriminates against the corporate form of business organization, against the use of equity financing in the corporate sector, and against the use of capital.

Unfortunately—for both economic and political reasons—maintaining the purity of a VAT can be difficult. Because of the VAT's reputation as a regressive tax, there is pressure to include special treatment for goods and services such as housing, medical care, food and clothing. Almost every country that levies a VAT uses multiple rates or exempts certain categories of business. (See section on European Experience.)

In Michigan, the only state using the value-added concept, there are numerous provisions providing special treatment for certain types of business. For example, agriculture is exempt from the tax; a special credit is provided for small, low-profit firms; and a special deduction is allowed for labor-intensive businesses. These provisions were designed, in part, to ease the transition from the old tax system (which was largely repealed), but were enacted mainly because of political pressure from special interest groups. The result of these provisions is to reduce the neutrality of the tax and require some businesses to subsidize other businesses.

A national VAT will probably be subject to some of the same pressures, as well as to efforts to address the regressivity issue, which was not an important factor in the Michigan debate. It is likely that the final result will be a tax that is more neutral than current revenue sources—particularly the corporate income tax—but one that falls short of the ideal.

REGRESSIVITY

As we have seen, critics of value-added taxation argue that it is a regressive tax in that it falls on the consumer in the same manner as does a sales tax. As a result, the VAT would fall heavier on low-income families because they spend a larger percentage of their income than do high-income families. This is the case if the VAT is passed forward to the consumer, as is generally assumed. However, it is not completely clear that the VAT is fully passed forward. Ture argues that the VAT is not regressive because some portion is shifted back to producers through a reduction in consumption and saving brought about by the tax.[16]

The proponents of the VAT also argue that the present federal tax structure is so progressive that an increase in the tax burden on those with high incomes would be counterproductive because it would reduce their incentive to increase earnings. They also argue that the expenditures financed by a VAT are distributed in favor of low-income families, thereby mitigating the regressive effects of the tax.

However, as can be seen in *Table 4–7*, the value-added tax will have a regressive impact unless preferential treatment is accorded to certain necessities or refunds are provided for low-income persons. (These data were based

Table 4-7
CONSUMER EXPENDITURES, AS PERCENT OF FAMILY INCOME, BY INCOME CLASS, ALL URBAN AND RURAL FAMILIES AND SINGLE CONSUMERS, UNITED STATES, 1973

	Family Income Before Taxes							
	Under $5,000	$5,000 to $7,999	$ 8,000 to $11,999	$12,000 to $14,999	$15,000 to $19,999	$20,000 to $24,999	$25,000 and over	Total
Average Family Income Before Income Taxes	$2,743	$6,479	$ 9,937	$13,414	$17,237	$22,118	$37,661	$11,419
Food, Total	31.7	20.0	16.1	14.2	13.0	11.6	8.2	14.9
At Home	27.2	16.2	12.6	11.0	9.8	8.6	5.7	11.5
Away from Home	4.5	3.8	3.5	3.2	3.2	3.0	2.5	3.4
Alcohol and Tobacco	3.7	2.5	2.1	1.8	1.6	1.3	0.9	1.8
Housing, Total	47.1	28.2	22.4	19.3	17.7	15.5	13.0	21.1
Shelter	29.1	15.9	12.5	10.3	9.2	8.0	6.9	11.5
Rent	21.5	10.7	6.8	4.0	2.7	1.8	1.2	5.0
Fuel and Utilities	8.8	5.1	3.9	3.4	3.0	2.6	1.8	3.6
Household Operations, Furnishings and Equipment	9.2	7.2	6.0	5.6	5.5	4.4	4.3	6.0
Clothing	8.6	6.5	5.8	5.1	5.2	4.9	4.2	5.7
Transportation	19.6	16.4	15.7	14.4	13.1	12.0	8.3	13.8
Health Care	9.0	6.0	4.7	3.9	3.5	3.1	2.3	4.1
Personal Care	1.6	1.1	0.9	0.8	0.8	0.7	0.6	0.9
Recreation and Reading	7.1	5.6	5.5	5.5	5.6	6.0	5.3	6.0
Education	0.5	0.4	0.5	0.6	0.8	1.1	1.3	0.9
Miscellaneous	1.0	0.8	0.7	0.7	0.6	0.5	0.5	0.6
TOTAL[1]	129.9	87.5	74.4	66.3	61.9	56.7	44.6	69.8
ADDENDUM:								
Food at Home, Rent, Fuel and Utilities and Health Care	66.5	38.0	28.0	22.3	19.0	16.1	11.0	24.2
All Other Consumption Items	63.4	49.5	46.4	44.0	42.9	40.6	33.6	45.6

[1]Excludes personal insurance, pension, gifts and contributions.
SOURCE: Consumer Expenditure Survey Series: Interview Survey, 1972-73, U.S. Department of Labor, Bureau of Labor Statistics.

on a 1972–73 survey of consumer expenditures and constitute the latest data available covering all consumption items.) As can be seen in the table, persons with incomes of less than $5,000 spend 129.9% of their income (possible because of gifts, sale of assets, use of savings and unreported income), whereas persons with incomes of $25,000 or more consume only 44.6% of their income. The items that contribute most of the regressivity of a consumption tax are: (1) food prepared at home which accounts for 27.2% of money income for those with income of less than $5,000 but only 5.7% for those with incomes of $25,000 or more; (2) rent, which is 21.5% for the lowest income group and only 1.2% for the highest income group; (3) fuel and utilities, which falls from 8.8% at the lowest income level to 1.8% at the highest income level; and (4) health care, which claims 9.0% of the incomes of those earning less than $5,000 and only 2.3% of the incomes of those earning $25,000 or more. For

all consumers included in the survey these four items accounted for 24.2% of money income. However, these items accounted for 66.5% of income for the under $5,000 income group and only 11% for the $25,000 and over income group. The remaining items of consumption accounted for 63.4% of the income of the low-income group and 33.6% of income for the high-income group. Therefore, the removal of the most regressive items, accounting for 34.7% of total consumption, would considerably reduce the regressivity of a valued-added tax or a retail sales tax. The tax would still be regressive, but would move fairly close to proportional at incomes above $5,000.

Frequently recommended remedies for reducing regressivity of the tax are income tax credits, revisions in welfare programs or multiple tax rates with lower rates on necessities. The European countries using the VAT have been successful in turning the tax into a proportional tax on income by granting preferential treatment to certain goods and services.

The regressivity argument therefore need not be a major barrier to the adoption of a national VAT. Brannon shares this view:

> People concerned with the relative treatment of rich and poor should focus on the total impact of government policy on the distribution of total income. The regressivity of a tax is merely one component of the picture. If VAT is efficient as a way to increase the price of consumption, then the regressivity of VAT can be readily offset in the total income distribution policy.[17]

BALANCE OF TRADE

One of the supposed advantages of a national VAT is that it would stimulate exports and improve the balance of trade. The actual impact would depend on (1) whether the VAT was imposed as an additional tax or as a replacement for other taxes, and (2) whether exchange rates are floating or fixed. The analysis below is only valid for fixed exchange rates.

A standard feature of indirect taxes such as the VAT is that they may be imposed on imports and rebated on exports. Since the VAT has been classified as an indirect tax under the General Agreement on Tariffs and Trade (GATT), it is not applied to export production but is levied on the goods and services a country imports.

If the VAT were imposed as an additional tax, these border adjustments would raise the price of imports, but no more than the VAT would raise the price of domestically produced goods. Prices of exports would not be increased by the VAT and would be lower than comparable output of domestic firms. Export prices would be unchanged relative to prices of competing products in foreign markets. These initial effects of a VAT with border adjustments on import and export prices, therefore, would provide no incentive for changes in imports or exports.

The trade balance could improve, however, because of the impact of the additional tax on the economy, which would reduce output and incomes and cause a reduction in imports. In addition, there would be a relative increase in the profitability of exports and firms would be encouraged to shift inputs of labor and capital to producing goods for export. This would cause the dollar volume of exports to rise relative to the dollar value of imports.

If substituted for the corporate income tax, the VAT would likely expand the volume of exports. This is because it would tend to reduce the overall cost of production for export in absolute terms, as well as compared with costs prevailing before the tax substitution. It would also tend to reduce prices of output for domestic markets relative to imports. On the other hand, the resulting expansion of total production and income would tend to increase import volume, even with the higher price of imports. While the net effect on the balance of trade cannot be explicitly determined, it is likely there would be a considerable improvement.

OTHER CONCERNS

The VAT is often criticized as being too productive a revenue source. Critics fear that because large amounts of revenue can be raised with a low rate, the tax will be easy to raise and will lead to excessive government spending. There was evidence of this concern in the Ullman VAT proposal. That bill contained a provision that limited total budget outlays to 22.6% of Gross National Product (GNP) in fis-

cal 1981, declining each year to a level of 20% in fiscal 1986 and thereafter. Also included was a provision to bring off-budget outlays within the budget process. The bill provided for a suspension of the spending limitation in only two situations: First, the President could submit to the Congress, as part of his budget, a report requesting suspension of the limit for that fiscal year. The reasons for the suspension had to be detailed in the report. The Committee on the Budget of either House would review the request and include its recommendations in its report on the resolution. Second, the limitation could be suspended if there were two consecutive calendar quarters of negative growth in real Gross National Product. In this circumstance, the Budget Committee of either House could include in its report on the budget resolution a recommendation that the limitation be suspended for the fiscal year. A motion to suspend the limitation would be considered with the budget resolution and would have to be approved by both Houses.

A related argument is that a VAT that is hidden in the retail price will likely generate little public opposition to increases in the tax rate. Although this argument was used against the Michigan VAT, the rate has not been increased since the adoption of the tax, and the only base changes have been reductions. Even in 1983, when the state was facing a $900 million dollar deficit and a 38% increase in the personal income tax was enacted, there was almost no discussion of an increase in the Michigan VAT. The main reason for this, as the supporters of the tax originally argued, is that the VAT covers all businesses whereas the previous business taxes levied in Michigan were largely confined to corporations. As a result, opposition to a tax increase is much more widespread and small businesses and professionals have more influence in the legislature than large corporations. The unpopularity of the tax with certain business groups and concern about job creation have also been factors in forestalling increases in the tax.

One disadvantage of a VAT (tax credit or invoice-type) or a national sales tax is that the price effects would be included in cost-of-living indices. These indices now include sales taxes but exclude individual income taxes and the payroll tax on employees. It is probable, also, that an additive-type VAT would be viewed as a business activity tax and be excluded from the cost-of-living indices.

The inclusion of a VAT in the price indices would trigger a round of wage increases for contracts, including escalation clauses, and would increase government spending for programs tied to price indices. If a VAT were substituted for an indirect tax (such as an income tax), on an equal revenue basis, the aggregate effects would be offsetting. There would, however, be a differential and perverse impact on wages. An increase in income taxes would be recognized as a diversion of income to the government and there would be no direct impact on wages—although in the long run workers would ask for wage increases in an attempt to maintain their real net income. An increase in a VAT or a national sales tax would automatically increase wages tied to cost-of-living indices. The result would be an unintended shifting of the final incidence of the tax burden from persons with inflation protection to persons without such protection.

Another major criticism of the VAT is that it would be harmful to new and unprofitable business activities. The basis of this argument is that the VAT requires a firm to pay a tax even when no profit is earned. This argument is only valid if the VAT is not fully shifted forward to the consumer, as is generally assumed.[18] Even if full shifting is not assumed, many new firms would be shielded by the immediate deduction for capital investment (consumption-type VAT) and small firms could be shielded by a small business deduction. Unprofitable firms would pay higher taxes than under a corporate income tax, but tax costs are a relatively small proportion of business costs and only the most marginal firms are likely to be injured. From a strictly economic standpoint, the economy is better off when marginal firms go out of business and resources are reallocated to more productive firms. But, this is not an argument that can be made in the political arena and it was the major argument used against the Michigan VAT. Most businesses have an aversion to paying taxes when they are unprofitable. The fact that many other taxes, such as payroll and property taxes, also are not profit-based taxes does little to deflect the criticism. The critics of the Michigan VAT

claim that the tax drives firms out of business or out of state, although there is no evidence to support this claim. While there may be similar arguments against a national VAT, interstate competition will not be an issue.

One additional not-often-mentioned argument against the VAT is that the tax would impose a burden on retired persons if used to replace payroll or profit taxes. Active workers would receive relief from these taxes and retired persons would pay taxes on consumption from income already taxed under the income and payroll taxes. The use of Individual Retirement Accounts alleviates this problem, as these funds are sheltered from income taxation until time of retirement.

VAT and Retail Sales Tax

Because both are taxes on consumption, a retail sales tax and a consumption-type VAT are very similar. The major differences are the treatment of capital goods, the collection process and the implications for intergovernmental fiscal relationships. These differences are discussed below.

A consumption VAT allows an immediate deduction for the purchase of producers' goods, whereas this is not easy to duplicate with a retail sales tax. Since some goods can be used either as productive inputs or as consumer goods, a way must be found to exempt them from the tax when purchased for business use. Including sales of producers' goods under the coverage of the retail sales tax is objectionable for several reasons: First, taxing business purchases prevents a uniform tax burden on consumers because because taxable producer goods enter into costs of different products to varying degrees. As a result, some items are discriminated against, in a rather arbitrary fashion, and the allocation of economic resources is altered. Second, if a consumption tax is shifted forward, taxing producers' goods will increase the likelihood of multiple taxation of the same item through the process of production. Third, imperfect and uncertain shifting can also take place if the firm buying taxed goods is competing with a firm that bought the same goods tax-free. Fourth, taxing business purchases hinders the objective of exempting some consumption items from the tax base because the tax will apply to capital goods used in intermediate steps of production.

The retail sales tax is imposed on transactions at the final stage of the production-distribution process and is collected by the retailer, based on the final selling price. The VAT (tax credit or invoice) is collected at each stage in the production distribution process, based on the value added by each firm. Advocates of a VAT contend it is a more secure revenue source because it does not concentrate collection at one stage.

There also may be differences between the two taxes in the implications for tax coordination and intergovernmental fiscal relations. This issue is discussed in detail in a later section.

There is considerable debate as to which would be the more desirable addition to the national tax system—a VAT or a retail sales tax. Lindholm lists a number of reasons for favoring the VAT:[19]

- ☐ If the retailer evades the tax, all revenues are lost from a retail sales tax; but the VAT is collected at several stages, so only taxes on value added by the retailer would be lost.
- ☐ Retail sales tax above about 5% would encourage purchases at wholesale, which are not subject to the tax, and other evasion efforts. The VAT would be included as a portion of the cost of acquiring goods and services and would be treated like any other expense.
- ☐ The retail sales tax is not adaptable to purchases of services, as evidenced by the exemption of most services from the tax at the state and local level. The breadth of coverage is much less of a problem with a VAT. Certain firms can be shielded under the VAT by exempting small businesses or labor intensive firms, rather than by exempting all services of one type.
- ☐ The retail sales tax often levies a tax on producer goods. The VAT avoids this problem because the VAT paid on purchase is deductible down through the production process until the end use is reached. This

avoids cascading the tax down through the production product. The retail sales tax is only about 75% to 80% effective in this respect.

- Under GATT, the VAT is treated as an accepted refund to exporters. It is also available as a border tax to be levied on imports selected for taxation. The retail sales tax cannot provide these benefits to exports and therfore does not provide the stimulus to export businesses provided by the VAT.
- Small business can be exempted under VAT without losing all revenues from the production-distribution process (only value added by small firms in the process is lost), whereas this cannot be achieved with the retail sales tax.

As mentioned above, an important advantage of the VAT is that it would likely provide much broader coverage of services than do most state sales taxes. *Figure 4–2* presents a classification of state sales taxes by the degree to which services are taxed. Only six states fall into the first two categories, which include those states that tax almost all services or provide for broad taxation of services. There are 26 states that fall into the last two categories: narrow taxation or little (or no) taxation of services.

Conceptually, services that satisfy a consumer desire are no different from a material good that accomplishes the same purpose. The failure to tax services destroys the neutrality of a consumption tax because it arbitrarily creates a different price for untaxed items than for taxable items.

There are also several practical advantages to including services in the base of a VAT or a retail sales tax: First, it expands the tax base, thereby requiring a lower tax rate to raise a given level of revenue. Second, including services in the base provides the tax with more growth potential. To illustrate, between 1977 and 1982 total consumption expenditures increased 65.4% while the services component increased 80.2%. Third, including services in the base would reduce the regressivity of the tax, as services are more income-responsive than are many other consumption items. Taxing services will not make the tax progressive, of course, because low-income persons spend a larger percentage of their incomes on most services than do high-income persons; but the disparity is not as great as with other items such as food, clothing, and utilities. (See *Table 4–7*.) Fourth, in some instances taxation of services could reduce administrative costs. If firms provide both services and goods, the service component must be separated from the price of the item—a procedure that creates costs for both the taxpayer and the tax collector. Including services in the tax base eliminates this procedure. However, taxation of services can also create administrative costs by increasing the number of taxpayers and causing definition problems.

To summarize, including services in the tax base of a VAT or a retail sales tax will make the tax more productive, less regressive, more responsive to economic growth, more neutral and, in certain instances, less costly to administer.

THE CASE FOR THE RETAIL SALES TAX

McLure sees no economic differences between the VAT and the retail sales tax, but prefers the sales tax for administrative reasons.[20] One advantage he sees is that state and local sales taxes could be piggybacked on a national sales tax—something that could not be done if a national VAT was adopted. He also sees no difference between the two taxes as they relate to the intrusion of the federal government into an area of taxation currently reserved for state and local governments.

Another advantage of the retail sales tax is that a well designed tax would promote tax consciousness: Placing the full tax on consumer goods might heighten awareness of the cost of government. Some Europeans believe that one weakness of VAT has been that it is too easy to raise when revenue is needed. This is not likely to be the case with a retail sales tax. In a conference of European experts, many participants expressed the view that the multistage character of the VAT, combined with the invoice method, allows higher tax rates than would be possible under a retail sales tax.[21]

One final argument that is often made for the retail sales tax is that it would involve fewer taxpayers. However, if even a relatively low ex-

Figure 4–2

STATE SALES TAXES: DEGREE OF TAXATION OF SERVICES[a]

1	2	3	4	5	No Sales Tax
Hawaii	Iowa	Arkansas	Arizona	Alabama	Alaska
New Mexico	Washington	Florida	Connecticut	California	Delaware
South Dakota	West Virginia	Kansas	North Carolina	Colorado	Montana
		Louisiana	South Carolina	Georgia	New Hampshire
		Mississippi		Idaho	Oregon
		New Jersey		Illinois	
		New York		Indiana	
		Ohio		Kentucky	
		Pennsylvania		Maine	
		Tennessee		Maryland	
		Utah		Massachusetts	
		Wisconsin		Michigan	
		Wyoming		Minnesota	
				Missouri	
				Nebraska	
				Nevada	
				North Dakota	
				Oklahoma	
				Rhode Island	
				Texas	
				Vermont	
				Virginia	
Number of States					
3	**3**	**13**	**4**	**22**	**5**

[a]Degree of state taxation of professional and personal services other than utilities, admissions, and transient accommodations.
[1]General taxation of most services (includes most professional and personal services).
[2]Broad taxation of services (may include taxation of repairs, investment counseling, bank service charges, barber and beauty shops, carpentry, laundry and cleaning, photography, rentals, interior decorating, printing, parking, and bookkeeping and collection services).
[3]Substantial taxation of services (may include taxation of repair services, bookkeeping and collection services, laundry and drycleaning, cable T.V., parking and landscaping).
[4]Narrow taxation of services (may include taxation of advertising, selected business services, and laundry and drycleaning).
[5]No (or little) taxation of additional services.
SOURCE: Compiled by ACIR staff from data in *Significant Features of Fiscal Federalism, 1982–83 Edition*, M–137, January 1984, Table 46.

Table 4–8

PROPRIETORSHIPS, PARTNERSHIPS AND CORPORATIONS, SERVICES AND RETAIL TRADE, NUMBER OF RETURNS, 1980

	Corporations	Partnership	Sole Proprietorships	Total
Retail Trade	514,385	167,826	2,066,267	2,748,478
Services	671,338	263,400	3,842,790	4,777,528
Total	1,185,723	431,226	5,909,057	7,526,006

SOURCE: *Sole Proprietorship Returns, Partnership Returns, Corporation Income Tax Returns*, Statistics of Income, Internal Revenue Service, 1980.

Table 4–9

PROPRIETORSHIPS, PARTNERSHIPS AND CORPORATIONS, NUMBER AND BUSINES RECEIPTS BY SIZE OF RECEIPTS, 1980

Size of Business Receipts	Number (in thousands) Sole Proprie- torship	Partner- ships	Corpo- rations	Total	Receipts (in millions of dollars) Sole Proprie- torship	Partner- ships	Corpo- rations	Total
Under $25,000	6,843	638	557	8,038	57,316	4,630	2,839	64,785
$25,000–$50,000	1,421	182	208	1,811	50,861	6,550	6,232	63,643
$50,000–$100,000	1,082	184	323	1,589	76,435	13,214	21,004	110,653
$100,000 or more	3,356	376	1,623	5,355	321,273	261,573	5,701,541	6,284,387
Total	12,702	1,380	2,711	16,793	505,885	285,967	5,731,616	6,523,468

SOURCE: *Sole Proprietorship Returns, Partnership Returns, Corporation Income Tax Returns*, Statistics of Income, Internal Revenue Service, 1980.

emption for small business were provided, there would be little difference in the number of taxpayers covered by a VAT or a retail sales tax. In 1980, about 7.5 million retail trade and service firms filed a tax return with the Internal Revenue Service. (See *Table 4–8*.) (This understates the actual number of firms subject to the sales tax, as many wholesalers, processors and manufacturers have limited retail sales.) The majority of these firms would be involved in collecting a retail sales tax—exceptions being those businesses dealing exclusively in exempt goods and services.

The total number of business firms filing a return with the IRS in 1980 was 16.8 million. A number of these firms would likely be exempted from a VAT because of size or type of business—e.g., if firms with business receipts of $25,000 or less were exempt, the number of potential VAT filers would be reduced by about 8 million firms; only 1% of total business receipts would be excluded. (See *Table 4–9*.) The result would be a relatively small difference in the number of taxpayers subject to the two taxes: from 7 to 7.5 million for a retail sales tax and from 8 to 8.5 million for a national VAT.

VAT and Corporate Income Tax

The possibility of using the proceeds from a national VAT to replace state corporate income tax is discussed in another section of this chapter. There have also been proposals to replace the federal corporate income tax with a VAT. Therefore, the effects and merits of the two taxes should be examined.

No definitive statements can be made about how the two taxes differ in terms of their effects unless certain assumptions are made about whether these taxes are absorbed by the owners of capital or passed along to consumers. Many economists hold the view that the VAT is shifted forward to the ultimate consumer through a rise in the price of consumption goods and the corporate profits tax is absorbed in the short-run and shifted forward to the consumer, at least in part, in the long-run. However, there are many factors that determine to what degree a tax will be shifted and it is impossible to make definitive statements about the final incidence of VAT and corporate income taxes.[22]

Identification of the direction and extent of general business-tax shifting requires creating a control situation in which all economic factors other than the tax remain unchanged. In a theoretical world, a multiplicity of variables must be taken into account. These include behavioral assumptions regarding the firm's goods, market structure, the firm's cost conditions over time, degree of money illusion, government spending, technology, degree of specialization of inputs, and price elasticities.

In partial terms, it is virtually impossible to isolate the effects of a tax change: At best, the major factors that influence the direction and extent of shifting of business taxes in the economy can be identified and, in conjunction

with a discussion of the nature of the particular type of tax employed, some general conclusions drawn about tax shifting.

PRICE EFFECT

If the VAT is passed along to the consumer while the corporate income tax is absorbed by the owners of capital, a tax on the factors of production is replaced by a tax on consumption. The result would be that prices would rise and the reward to the owners of capital would be increased. As workers tried to maintain their real wages—which could be paid out of higher profits or financed by another round of price increases—a series of wage demands could be triggered.

If it is assumed that both taxes are absorbed by business, overall price levels would be unaffected. In this case, the VAT becomes a tax principally on wages and profits. The tax falls on two factors of production—labor and capital—in contrast to the corporate income tax, which falls only on profits (capital) in its immediate impact. The result is that the rewards to both factors are reduced. Relative to the previous position, however, capital will be better off and labor worse off, since the tax burden is spread over two factors rather than one.

If it assumed that both the VAT and the profits tax are passed forward, the effect on prices will be negligible: There will be a change in relative prices favoring high profit firms. The impact on the cost of living will depend on consumption patterns for the goods whose relative prices have been changed.

Proponents of the Michigan VAT used the assumption that both the VAT and the profits tax are passed forward. They argued that the VAT, being an additive-type tax and administered in the same manner as the profits tax, would be treated by business in the same manner as the profits tax. However, (1) because a VAT liability is more easily determined in advance than is a profits tax and (2) because many of the firms paying the VAT (such as professionals) are in relatively noncompetitive markets, the VAT is more likely to be shifted forward than is the corporate income tax. In addition, many local market businesses—such as service and construction firms, retailers, and professionals—do not have out-of-state competition and are taxed relatively equally, putting them in a position to pass the tax forward to consumers.

In a 1968 study, Henry Aaron attempted to estimate the price effects, under various shifting assumptions, that would result from replacing the corporate income tax with a VAT. The findings of the study indicated that the impact would differ sharply from industry to industry: In some industries, the shift would require substantial adjustments. Agriculture, in particular, would be penalized under most shifting assumptions. Under the most plausible uniform shifting assumptions, six industries other than agriculture would face major adjustment problems. The taxes of these industries would be increased and they would face the need to raise prices and/or lower payments to one or more factors of production. The six industries are: (1) transportation and warehousing; (2) oil and gas; (3) hotels and services; (4) construction; (5) lumber and wood products; and (6) auto repair services. Eight other industries would enjoy major reductions in tax liabilities and the ability to lower prices and/or raise payments to one or more factors of production: (1) utilities; (2) communications; (3) automobiles; (4) aircraft and other transportation equipment; (5) chemicals, plastics, drugs and paints; (6) radio and TV broadcasting; (7) tobacco and (8) ordnance.[23] Aaron's findings are generally consistent with Michigan's experience with VAT.

EFFICIENCY

A supposed major advantage of the VAT relative to the corporate income tax is that it is more conducive to the efficient use of resources. There is general agreement that the corporate profits tax acts as a disincentive to the efficient use of resources because efficiency increases profits, which in turn increases the tax liability. The tax also is considered by some to encourage wasteful spending because increased expenses reduce a corporation's tax bill.[24] This argument is less important at the state level because of the relatively low rates levied by most states.

The VAT is not generally subject to this criticism because profits are taxed at a much lower rate and on an equal basis with other factors. A related argument is that a heavy profits tax

could discourage capital investment because profits are a major source of investment funds. The VAT would reduce the tax on profits, at least for profitable firms, thereby freeing more funds for job-creating capital investments; unprofitable firms could pay higher taxes and have less funds available for investment.

The supporters of the VAT generally argue that the economy can only gain from increased efficiency. Unemployment might be slightly higher in the short run, but in the long run, business would be more competitive, demand would increase, and new jobs would be created. Greater efficiency and higher productivity can produce only one outcome in the long run: a higher standard of living.

The benefits of a tax structure that encourage efficiency are clear to an economist, but the politicians who must pass final judgment on a VAT are not often impressed by these arguments. In Michigan there were few legislators whose voters for or against the VAT were based on a clear economic perception of the long run economic effects of a VAT. These effects are likely to be more important in the debate about a national VAT and better information will be available at that time. The major barrier to adoption of a national VAT, however, is not likely to be economic considerations. Rather, it will probably be based on fear of the unknown.

CAPITAL INVESTMENT

A major claim that is made for the value-added tax is that it is more favorable for capital investment than income taxes. This is because income taxes reduce savings and investment whereas a VAT tax falls on consumption—thereby encouraging more savings and investment. But, this outcome would occur only under certain conditions.

If both the VAT and the corporate income tax are fully passed forward to the consumer, there will be no discernible effect on investment policies. If both taxes are absorbed, the tax on profits is replaced by a tax on wages and profits. Prices are unchanged but the real returns to capital increase and those to labor fall. The result is an increase in the relative cost of labor. If these costs cannot be passed forward, the relative price of labor and capital will shift in favor of capital, thereby providing greater incentive for investment.

STATE-LOCAL TAX POLICY ISSUES

The VAT as a State Revenue Source

The business enterprise is the vehicle through which individuals in their role as consumers or as suppliers of land, labor or capital, derive the benefits of economic activity. As an intermediary in the economic process, the business enterprise is a particularly efficient and expedient instrument for collecting taxes. It is widely understood that business taxes are borne by individuals as consumers, workers or shareholders. Political realities, however, dictate that taxes be imposed on the enterprise. In the long run, business taxes reduce income available for private consumption or investment no less than do personal income taxes.

These general concepts hold for both national and subnational business taxes. For purposes of tax policy, however, a major difference exists because of the politically defined jurisdiction of state and local governments: These governments operate in "open" economies. A state or local government has no authority to enact tariffs or other barriers to trade, or to control the movement of the factors of production—reducing the independence subnational governments can exercise in the formulation of tax policies.

An obvious implication of economic "openness," in combination with geographically restricted tax jurisdiction, is that nonresident individuals owning a resident business enterprise cannot be taxed directly on their income or wealth (other than real property). In addition, resident individuals can engage in spending beyond the political boundaries of their state and avoid direct payments of sale and consumption taxes.

Another budgeting implication of economic "openness" is the overspill or externality of benefits from state and local expenditures. As a result, even if the benefits and corresponding cost of programs could be apportioned to identifiable recipients, the authority for requiring payments is limited by political boundaries.

An "open" economy also presents the opportunity for exporting taxes to nonresidents. Examples here are severance taxes on resources consumed in other states and sales and excise taxes paid by tourists. If tax exporting is

carried to an extreme, it can raise questions of interstate equity and the efficiency of resource use.

These differences give the national government more flexibility in taxing than does state and local government and let it not be restricted in its choice of a system of business taxation. Because the national economy is essentially a "closed economy," factor mobility and overspills are not crucial factors in the development of national tax policy. On the other hand, employing the business enterprise as the tax collector is the only method state and local governments have to assess individuals, wherever they may reside, for the benefits of public service provided initially to the business enterprise. It can be logically argued from an economic standpoint, then, that the services of government should be treated like the services of labor and capital and their costs should be incorporated into the pricing structure.[25]

The VAT has the advantage of overcoming the major problems in business taxation that confront subnational governments, as indicated in the comments of Papke:

> While the federal TVA [VAT] is nothing more than a disguised retail sales tax, a TVA imposed by an individual state, operating in an open economic system, is the only device by which a state can reach all incomes arising within its borders or the value of all goods and services provided therein. A TVA is based on the dollar value of the contribution of the business enterprise to the output of goods and services in the state. The advantage of a TVA levied at the subnational level is that it relates a business's tax liability directly to its use of economic resources—capital, labor, land and entrepreneurial skills. The logic or rationale of the tax rests squarely on the benefits received principle of taxation—government services are essential to the operation of any business enterprise, regardless of profitability, and a part of these public service costs should properly be included in the cost of doing business.
>
> The subnational TVA reaches incomes before they are distributed in the form of wages, interest, rents, and profits, and goods before they are exported. In short, it addresses itself directly to the inaccessibility of state tax bases, especially as it relates to subnational business taxation.[26]

The advantages of a subnational VAT are important to the discussion of a national VAT because some observers argue that the use of VAT as a federal revenue source would preclude its use at the subnational level. From a strictly administrative viewpoint, this would not necessarily be the case because a subnational VAT could easily be piggybacked on a national VAT (if an additive-type VAT were used). However, two major policy considerations must be addressed in his context: First, what would be the fate of state and local corporate income taxes? Based on the Michigan experience, there may be some reluctance by the business community to accept replacement of an ability-to-pay tax with a benefits-received tax. (The merits of a corporate income tax compared with a VAT are discussed elsewhere in his chapter.) Second, the combination of a national VAT and state-local sales taxes would impose a heavy burden on consumption. This, in turn, could generate considerable opposition to imposing another consumption tax at the subnational level.

Conflicts with State-Local Tax Systems

Some state and local officials have expressed concern that a federal value-added tax might make it more difficult for states and localities to increase sales taxes. In 1972, the National Governors' Conference took this position and adopted a resolution that "the value-added tax would directly compete with state sales taxes in 45 states. . . ."[27] However, if the experience in Michigan is any indication, this may not be the case. Although a VAT is very similar to a retail sales tax, the Michigan VAT was viewed as a business tax rather than as a retail sales tax. There was almost no discussion of the impact of the VAT on the state's ability to use the sales tax as a revenue source in the future.

Willingness to use the sales tax as a source of revenue, despite the existence of a state VAT, was demonstrated in 1978 and 1980 when the legislature placed on the ballot proposals to increase the sales tax (to 5% in 1978 and 5.5% in

1980) to finance property tax relief.[28] Both proposals were unsuccessful. The sales tax comparison may have been mitigated in Michigan because the VAT replaced seven business taxes and is calculated by the additive method—making it look much more like a business tax than a sales tax. Another factor is that the Michigan sales tax does not cover most services. On the other hand, the existence of the VAT has been used as an argument against proposals to extend the sales tax to services because this sector experienced a large tax increase when the Michigan VAT was enacted.

While a national VAT that used the additive method and replaced a portion of state and/or federal corporate income taxes would likely be viewed as a business tax by the public, tax experts would certainly make the retail sales tax analogy. In a 1973 report, the ACIR reached the following conclusion:

> More likely, the fear of federal usurpation rests on the tax source side of the problem. In this regard, there is little choice between the value-added and the retail sales tax. The retail sales tax would be as direct an intrusion as possible; it is, after all, the tax instrument used by states and localities. Yet, the value-added tax offers nothing salutary either. The consumption variant of this levy is, in essence, equivalent to a retail sales tax confined to consumption goods with the singular differences being in method and nomenclature. As such, neither tax is likely to assuage fears of federal intrusion into the sales tax field.[29]

McLure concurs with this view:

> ... a federal retail sales tax would involve no more intrusion into the general consumption tax field than would a VAT.[30]

The point is arguable and there is no way to arrive at a definitive answer. However, the Michigan experience suggests that a national VAT may not necessarily be publicly viewed as a retail sales tax—particularly if the additive method is used or if the tax is included in the price. Even if the national VAT were to use the tax-credit method of calculation and was enacted strictly as an additional revenue source, the impact on the states' ability to use the sales tax is not likely to be that significant if the rate is limited to no more than 3% or 4%.

In addition, the American public does not appear to have a negative view of a broad-based consumption tax—be it a national sales tax or a VAT, particularly when measured against the income tax. The ACIR's 1983 poll on public attitudes on governments and taxes included a question on the best method to raise substantial federal revenues. The two choices were increasing individual income taxes or levying a national sales tax on all purchases other than food. The public favored the national sales tax by 52% to 24 %, with 25% having no opinion.[31] In response to a similar question in the 1972 ACIR poll, a VAT (food and necessities exempt) was favored over the income tax by 34% to 10%. However, the first choice, favored by 40%, was for reducing such items as special treatment for capital gains and cutting deduction allowances for charitable contributions, state and local taxes, and medical expenses.[32] The sales tax was also the choice over the income and property tax for raising revenue at the state and local level.[33] As might be expected, there is some fall-off in support for the sales tax among low-income persons; but even in this group, it maintains a wide margin over the income and property taxes. When the public is questioned about the worst (or least fair) tax, the state income tax is preferred over the sales tax, although the margin has been narrowing in recent years. Both taxes far out distance the federal income tax and the local property tax in the public's mind.[34]

Regardless of how a national VAT is viewed, no single level of government has exclusive rights to a particular tax. Federal, state and local governments all levy personal and corporate income taxes. Selective sales taxes are levied by all three levels of government. The main issue is not the number of jurisdictions using a particular tax but the overall level of taxes. Although there is concern about the level of taxes in this country, the U.S. tax burden is still well below that of other nations. Total taxes in the United States are only 31.2% of Gross Domestic Product (GDP), compared with an average of 36.2% for the 23 OECD member

countries—ranking the U.S. 17th in tax burden. (See *Appendix Table A–2*). Additionally the growth in taxes levied in the U.S. as a percentage of GDP was slower in the 1971–81 period (3.3 percentage points) than in all but four other OECD member countries. (See *Appendix Table A–3*.). It is also interesting to note in *Appendix Table A–4* that the United States raises only 17.6% of its total tax revenue from taxes on goods and services (includes VAT), compared with an average of 29% for all OECD countries. Only Japan relies less on taxes on goods and services—15.9% of total taxes. The use of the national VAT to reduce the federal budget deficit, and, possibly, to replace state corporate income taxes is also likely to alleviate concern about the impact on the revenue raising ability of the states. There are compelling arguments on both sides of this issue and it is difficult to draw a firm conclusion. However, it is an issue that must be carefully weighed in any decision to enact a national VAT.

From an administrative standpoint, a national VAT would not complicate the operation of state retail sales taxes. If the invoice or credit method were adopted, the VAT liability would be equal to the tax on sales less the tax on purchases. No adjustment would be necessary for interstate sales, as sales would be taxed on an origin basis. The use of the additive or subtraction method of calculation would be even less likely to conflict with a retail sales tax.

There appears to be little to gain from attempting to coordinate a national VAT with state retail sales taxes. As indicated in Figure 4–2, the base of the VAT is likely to be much broader than the base of state sales taxes. This would greatly complicate any coordination efforts and, in fact, such efforts might draw more attention to the tax overlapping argument. Although coordination may be a desirable goal from the standpoint of administrative ease for both the taxpayer and the tax collector, past efforts to provide Federal-state cooperation and coordination have not been successful. Many states closely coordinate the income tax with the federal income tax, but just as many states use their own income definition. Numerous state tax administrators and policymakers are wary about tying their tax system too closely to the federal system, principally because tax changes at the federal level will then translate into tax changes at the state level and it is politically difficult for the states to decouple. An example is the 1981 changes in the treatment of depreciation for federal tax purposes, which had a major impact on state income tax revenues.

The states' interest in coordination is underscored by their response to a program that provides for federal collection of state individual income taxes: Not a single state has taken advantage of this "piggybacking" authority.

All of these factors suggest there would be no serious administrative or coordination problems imposed on state tax systems by the adoption of a national VAT.

REVENUE SHARING OPTION

One approach to overcoming state-local opposition to a national VAT would be to share the revenues with these governments. Shannon and Gabler suggested this might be necessary:

> Yet, avenues of accommodation can be found. If federal VAT revenues were used in such a way as to relieve state-local expenditure pressures, or if state access to the individual income tax were facilitated by granting a tax credit for state income taxes, the intrusion argument would be deflated. Although it is premature to discuss specifics, a federal value-added tax would surely seem to require some "carrot" to offset opposition of the nation's governors.[35]

If the premise that a national VAT will restrict the use of state-local sales taxes is accepted, then a case can be made for a revenue-sharing program. This would lessen the need for state-local governments to raise their own sales taxes.

Another approach would be to use enactment of a national VAT to make adjustments in the state-local tax system. One option would be to share revenues with state-local governments if they agreed to repeal their corporate income taxes. In 1982, state-local corporate income taxes generated about $15 billion and corporate taxes were levied by 45 states (see *Table 4–10*).

Table 4–10

CORPORATE NET INCOME TAX COLLECTIONS BY STATE, 1982

(dollar amounts in thousands)

	State	Local	Percentage of Total State Tax Revenue
U.S.	$14,006,175	$1,026,000	8.6%
Alabama	123,218	N/A	5.6
Alaska	703,663		27.7
Arizona	114,759		6.2
Arkansas	91,706		7.3
California	2,643,946		12.1
Colorado	91,400		5.4
Connecticut	349,283		14.9
Delaware	36,138		6.1
Florida	383,827		6.9
Georgia	267,683		8.2
Hawaii	43,202		4.1
Idaho	45,602		7.9
Illinois	714,196		9.6
Indiana	125,845		4.1
Iowa	147,115		7.4
Kansas	122,549		8.5
Kentucky	166,815		6.7
Louisiana	291,953		9.3
Maine	36,090		4.9
Maryland	148,857		4.7
Massachusetts	598,283		12.5
Michigan	952,280*		15.2
Minnesota	325,295		9.3
Mississippi	70,987		4.9
Missouri	123,072		5.3
Montana	44,630		8.4
Nebraska	48,498		5.6
Nevada	—		0
New Hampshire	79,808		24.5
New Jersey	724,869		13.0
New Mexico	60,265		4.9
New York	1,342,051		8.7
North Carolina	277,460		7.3
North Dakota	37,734		7.1
Ohio	548,091		9.4
Oklahoma	139,022		5.1
Oregon	124,171		8.0
Pennsylvania	869,714		10.6
Rhode Island	52,524		7.8
South Carolina	131,546		6.7
South Dakota	1,041**		0.3
Tennessee	206,835		9.6
Texas	—		0
Utah	40,894		4.3
Vermont	24,954		7.5
Virginia	176,965		5.5
Washington	—		0
West Virginia	34,400		2.3
Wisconsin	322,939		8.2
Wyoming	—		0

*Michigan levies a value-added tax.

**Covers financial institutions only.

Note: Because of weak economy in 1982, corporate income tax collections were depressed. In 1979, corporate income tax collections for all states were 9.7% of total taxes.

SOURCE: "State Government Finances in 1982," U.S. Department of Commerce, Bureau of the Census, October 1983, Table 7.

Replacement of these revenues would require a VAT rate of about 1%. This option has several advantages:

1. To the extent that the VAT is viewed as a business tax, the relief from the corporate income tax would make the VAT more acceptable to a segment of the business community.
2. If, as discussed earlier, it is assumed that a national VAT is passed forward to the consumer and a corporate tax is partially shifted backward to wages and profits, then replacing the corporate income tax with a VAT would have favorable effects on business investment. In addition, the VAT is more conducive to the efficient use of resources than is the corporate income tax. These arguments are less important at the state level than at the federal level because of the relatively low rates levied by most states.
3. The VAT is a much more stable revenue source than is the corporate income tax, mainly because the major share of value added consists of compensation (wages, salaries and fringe benefits) which fluctuates much less than do corporate profits. During the 1980–82 recession, the Michigan VAT was relatively stable, whereas the corporate profits tax levied by state and local governments declined 12.4%.[36] A corporate profits tax levied in Michigan would have declined much more sharply, given the heavy concentration of durable goods manufacturing in that state. The federal, state and local corporate profits tax liability for manufacturing firms fell 38.5% from 1980 to 1982.[37] Stability is particularly important for states with cyclical economics.
4. The elimination of state-local corporate income taxes would reduce interstate tax competition, which is often viewed as self-defeating.[38] The states would certainly continue to seek a competitive tax advantage through other means, but the elimination of the major state business tax would tend to reduce the intensity of this competition.
5. The elimination of the corporate income tax would resolve one of the stickiest problems in intergovernmental fiscal relations: the taxation by the states of the foreign income of multinational corporations. Of the 45 states that have corporate income taxes, virtually all apply the unitary method of allocation (treating a company's operation as one unit, including subsidiaries) to small business and to multistate and multinational companies through a branch system. Twenty-four states require that domestic subsidiaries be included in the definition of unitary business. Twelve of these 24 states require that multinational subsidiaries be included as well. Many multinational corporations object to the unitary apportionment method of taxation. As a result, for several years there have been federal legislative efforts to restrict the states' ability to impose their taxes on the income of multistate corporate businesses. A VAT would avoid this problem because the tax would be limited to activity inside the borders of the U.S. Most multinationals located in Michigan supported the VAT because the problems of worldwide combination and taxation of foreign dividends were eliminated when the corporate income tax was replaced by the VAT. (An additive-type VAT could require worldwide combination, but this would not be consistent with the concept of the VAT.)

There is one major disadvantage to this option which may be insurmountable despite the many advantages listed above: The issue of

state sovereignity. The states would likely resist any efforts to narrow their range of taxing authority, just as they are resisting federal efforts to restrict their taxation of multinational corporations. Although the revenue would be replaced, the states would be concerned that the funds allocated from the national VAT might be reduced or eliminated in the future. The elimination of the states' share of federal revenue sharing in 1980 is still fresh in the minds of state officials. This concern might be addressed by enacting a national VAT with authorization for a maximum rate of, say, 4%. The federal government would then levy 3% and allow the states, at their option, to levy 1%. (The states could either piggyback on the federal tax or administer the tax themselves.) It is likely that the states would feel more comfortable with this source of revenue than with revenue-sharing grants from the proceeds of a national VAT.

One additional problem arises because five states—Michigan, Nevada, Texas, Washington and Wyoming—do not levy a corporate income tax. (South Dakota raises minimal revenue from the tax and Michigan levies a value-added tax.) The solution might be to give the states the option of replacing other business taxes or a portion of the sales tax. The sales tax option would both directly address the preemption issue and appeal to those concerned about the effects of increasing the tax burden on consumption.

There is little question that a "no strings attached" revenue-sharing program (direct grants or taxing authority) would be favored over a proposal that would impinge on state and local governments' taxing authority, and such a program would likely make a national VAT more palatable to state and local officials. However, options that would improve the overall system of taxation in the United States should not be rejected out of hand.

SUMMARY OF FINDINGS AND CONCLUSIONS

The value-added tax (VAT) is often mentioned in tax policy discussions and studies as a way to supplement federal revenues or to replace current revenue sources. Most often the VAT is mentioned as a replacement for the corporate income tax, the Social Security payroll tax or a portion of the personal income tax. In a 1973 study (see footnote 1), the ACIR examined the merits of enacting a federal VAT to provide revenue for property tax relief and to ameliorate fiscal disparities among school districts. The Commission concluded that federal aid should not be extended for these purposes and therefore did not endorse a major new source of federal revenue. In 1979, Al Ullman, Chairman of the House Ways and Means Committee, held hearings on a 10% VAT that would have raised $115 billion to replace Social Security payroll taxes and a portion of the federal personal and corporate income taxes. The proposal did not generate much support and was later withdrawn. Recently, the VAT has received attention as a means of raising revenue to reduce large federal budget deficits.

The VAT has also been advocated as a state revenue source by many state-local finance experts. While it is widely used in Europe, the only government levying the tax in this country is the state of Michigan, which uses a modified additive, consumption version of the tax.

The value-added tax is imposed on the value a firm[39] adds to the goods and services it purchases from others. The firm adds this value by using its labor force, machinery, buildings and capital to handle or process the items and services it purchases. "Value added" is the difference between a firm's sales and its purchases—or alternatively, the sum of its labor costs, profits, rent, interest, other operating costs and royalties. Although there is no perfect way to measure the value of government services consumed by a firm, the VAT is generally viewed as a better measure than most other business taxes because it is based on the output or economic activity of the firm. Therefore, the VAT is usually classified as a benefits-received rather than an ability-to-pay tax.

There are three variants of the value-added tax: gross product, income and consumption. The essential distinction between these three lies in how they treat capital investment. The *gross product* variation allows no deduction for the cost or the depreciation of capital goods; the *income* variant allows no deduction for the purchase of capital goods, but allows depreciation; and the *consumption* variant allows a de-

duction for the purchase of capital goods, but depreciation is not allowed as an expense. The consumption-type VAT allows capital investments to be expensed immediately and requires depreciation on these investments to be added annually to the base against which the tax is levied. The consumption-type VAT provides the most neutral and most favorable treatment of capital assets and is the variant almost universally used and most extensively discussed for adoption in the United States. The base of a consumption VAT corresponds closely to personal consumption expenditures and for this reason is often viewed as a retail sales tax.[40]

There are three methods of calculating the VAT: tax credit or invoice, subtraction, and additive. The *tax-credit* method is generally thought the most likely to be adopted; it is the method used by all countries that levy a VAT. Under this method, a firm applies the tax rate to each sale and records the amount on each sales invoice. From the sum of all these calculations on individual invoices is *subtracted* the amount of VAT shown on the invoices for all of the items the firm purchased from other firms. The difference is paid to the government.

The additive method calculates the base by adding up the payments made to the factors of productions: profits, wages, depreciation, rent, and interest. The full cost of any capital investment is allowed as a deduction from the additive base. The additive approach has several advantages: (1) simplicity; (2) familiarity to American businesses; (3) explicit identification of the components of value-added; and (4) the fact that it looks more like a business income tax than a retail sales tax and may not be passed forward as directly to consumers.

A final consideration in designing a VAT is whether the tax should be included in the retail price or stated separately. All European countries except Denmark include the VAT in the final price. However, stating the amount charged separately would clarify political accountability for the tax, ease problems for regulated industries, eliminate the need for businesses to readjust product prices, and increase consumer pressure to keep price increases from exceeding the amount needed to recover the tax. Including the tax in the retail price would blur comparisons between the VAT and a retail sales tax and probably reduce the VAT's restrictive impact on state and local use of the sales tax.

A VAT would yield about $19 billion per 1% rate, based on 1985 estimates. If levied as an additional tax, the VAT would reduce overall economic activity, as would any additional tax. As a result, the net yield of the tax per 1% would be somewhat lower than $19 billion, because a weaker economy would reduce revenue from other federal taxes. If the proceeds of a national VAT were used to reduce the federal deficit, the result would likely be lower interest rates and a stronger economy, partially offsetting the initial negative economic impact of an additional tax.

Summary of Findings

None of the revenue-raising options available to the federal government is without is strengths and weaknesses. In the case of the VAT, there are particularly compelling arguments on both sides. On the positive side are the theoretical economic and tax policy advantages of the VAT. On the negative side are political barriers and concerns about the impact of the VAT on federal spending.

There are four major reasons for favoring a VAT as a way to increase revenues or to reform the federal tax system:

In its pure form, the VAT is economically neutral because all factors of production and all forms of business are taxed equally. Consequently, the VAT is not an important factor in business decisions. In contrast, the federal corporate income tax has a major impact on the way businesses behave because higher taxes are levied against some factors of production and types of business firms and not others.

The VAT is a productive tax, meaning that a large amount of money can be raised at a low rate. The lower the rate of a tax, the less the chance of magnifying its weaknesses. Furthermore, a low rate will provide less interference with state-local revenue systems.

The VAT would redress a major imbalance in the nation's revenue system. The national

government levies an unusually heavy burden on income and a relatively light burden on consumption. Among the 23 OECD-member countries, only five rely more heavily on income and profits taxes than does the United States and only one relies less on taxes on goods and services. The Untied States raises 46.3% of its tax revenues from income and profits taxes and only 17.6% from taxes on goods and services. The averages for all OECD countries for these two categories are 40.1% and 29%, respectively. (See *Table A–4*.) Heavy taxes on income tend both to reduce the work incentive and to discourage saving and investment. Taxes on consumption tend both to discourage consumption and encourage saving and investment. Redressing the current imbalance between income and consumption taxes could have a favorable long-term economic effect.

The VAT is a stable revenue source, particularly in comparison with a corporate income tax. To illustrate, between 1976 and 1979 U.S. corporate profits before taxes increased 52%, but declined 31.1% between 1979 and 1982. (See *Table 4–3*.) Personal consumption expenditures, which would correspond closely to the base of a comprehensive, consumption-type VAT, increased 39% between 1976 and 1979, and 32.2% between 1979 and 1982.[41] However, stability is more a virtue at the state than the national level. The corporate profits tax mitigates economic cycles because it reduces tax drag during an economic downturn and restrains excessive demand during a recovery. A stable national revenue source could be of value, nonetheless, if a constitutional amendment or a statute requiring a balanced budget were approved.

Although a VAT has many virtues, it also has important weaknesses that could raise barriers to its adoption in this country.

The critics of a VAT argue that it is a regressive tax, falling on the consumer in the same manner as a sales tax. It would bear more heavily on low-income families because they spend a larger share of their income than do high-income families. Consumer expenditure survey data for 1972–73 indicate that persons earning $5,000 or less spent 129.9%[42] of their income whereas persons earning $25,000 or more spent only 44.6% of theirs (See *Table 4–7*.) The regressivity argument rests on the generally accepted assumption that the VAT is fully passed forward to the consumer. If this assumption is correct, there is little doubt that the direct impact of the VAT is regressive. However, proponents of the tax argue that the federal tax system is already so progressive that it would be counterproductive to increase taxes further on high-income persons. Proponents also argue that the expenditures financed by a VAT are likely to be distributed in favor of low-income persons, thereby softening the regressive effects of the tax. In any event, as has been demonstrated in Europe, the regressivity argument need not be a major barrier to the adoption of a VAT. Most European VATs are proportional with respect to income because necessities such as food, housing and medical care are given preferential treatment. The regressivity of the VAT can also be reduced by providing income tax credits or refunds to low-income persons—an approach that is to be preferred from the standpoint of tax administration.

There is a fear that the VAT could be a powerful engine for increased federal spending because its broad base enables a low rate to generate substantial revenues. Moreover, if the rate were hidden in the retail price rather than being stated separately, opposition to rate increases might be muted. While the productive nature of the tax can be a virtue, it can also be viewed with suspicion. European experience indicates there may be some validity to this concern, as was evident in the Ullman VAT proposal. That bill contained a provision that would have limited total budget outlays to 22.6% of GNP in fiscal 1981 and would have reduced the percentage each succeeding year, to a level of 20% in 1986 and thereafter. A Constitutional amendment or a statute requiring a balanced budget or limiting the rate of the VAT would inhibit its tendency to encourage increased spending.

State and local officials fear that a national VAT would limit their ability to raise sales taxes. A VAT is generally viewed as a form of retail sales tax and its use at the national level

might affect public acceptance of higher sales taxes at the state and local level. How restrictive a federal VAT might be upon state-local sales taxes will be determined largely by two factors: its rate and its visibility. For example, a VAT with a relatively high rate of 8% that is stated separately at the retail level would be highly restrictive. Conversely, a VAT with a relatively low rate of 3% that is included in the retail price would be far less restrictive. Interestingly, ACIR opinion polls have found that the American public does not have as negative a view of a broad-based consumption tax (be it a national sales tax or a VAT) as state and local officials may fear—particularly when measured against an income tax. In a 1983 poll, 52% of the public favored the national sales tax as a source of additional revenue, while only 24% favored the federal income tax.

The concern of state-local officials might be overcome by sharing the revenue directly with these governments, either by providing for optional local taxing authority in the federal legislation or by designing the tax to look more like a business tax than a consumer tax. Sharing the revenue or taxing authority with states and localities would lessen their need to raise their own sales taxes.[43] The VAT could be made to look more like a business tax if the additive method of calculation were used or the tax were included in the retail price rather than stated separately. While these practices may appear devious, they would likely reduce the restrictive impact of the VAT on state-local sales taxes. Finally, the tremendous productivity of the VAT could reduce its restrictive effect because a low rate could raise substantial revenues while minimally interfering with state and local sales taxes.

A national VAT might generate opposition from many business both because it is not based on ability to pay and because it would cover many noncorporate businesses not accustomed to paying business taxes. A major criticism of the Michigan VAT is that this tax must be paid even when a firm is unprofitable. Although other taxes, such as property taxes, are not based on ability to pay, the Michigan VAT replaced the corporate income tax and looks like a business income tax. Many businessmen object to paying the tax when they do not earn a profit. A national VAT designed to look like a business tax could generate the same reaction. A VAT that is akin to a retail sales tax and is passed directly forward to the consumer might avoid this criticism.

FOOTNOTES

[1]Advisory Commission on Intergovernmental Relations, *Financing Schools and Property Tax Relief—A State Responsibility*, A–40, January 1973. (the VAT itself was examined in a companion ACIR information report: *The Value-Added Tax and Alternative Sources of Federal Revenue*, M–78, August 1973.)

[2]The VAT proposed by Ullman was at a rate of 10%. There was a zero rate (sales are exempt and the VAT paid on purchases is refunded) for exports, charities, public and private nonprofit educational institutions, mass transit, housing, capital investments, and sales to governments. Banks and other financial institutions were exempt as is the case in all European countries, and special treatment was provided for insurance companies.

[3]Stability was a major selling point for the Michigan VAT, and it has turned out to be a key advantage of the tax. During the 1980–82 recession, the Michigan VAT was relatively stable wheras the corporate profits tax levied by state and local governments declined 12.4% (1980 to 1982). *Survey of Current Business*, July 1983, U.S. Department of Commerce/Bureau of Economic Analysis, p. 45.

[4]Alan A. Tait, "Value Added Tax," London, McGraw-Hill, 1972, p. 10.

[5]The main advantage of this method (indirect calculation) is that it brings the VAT under the General Agreement on Trade and Tariffs (GATT) rules on fair trade. Under the GATT rules, as a sales tax, the VAT on exports can be rebated; if levied as a direct tax on wages and profits, the GATT rules might not allow its deduction. In countries using the destination principle of taxation, the indirect method allows the tax content of any sale to be known at once, thereby facilitating border adjustments on exports. Tait makes a good case, however, in favor of using the origin principle of taxation ("Value Added Tax," London, McGraw-Hill, 1972, pp. 16–18).

[6]Advisory Commission on Intergovernmental Relations, *The Value-Added Tax and Alternative Sources of Federal Revenue*, M–78, U.S. Government Printing Office, Washington, 1973, p. 81.

[7]The agricultural community claimed that the tax could not be passed forward because the farmers were competing with other states. They also suggested that growing food serves an important social purpose.

[8]The original legislation provided a larger labor intensity deduction for food retailers that was phased out over several years.

[9]Advisory Commission on Intergovernmental Relations, *The Value-Added Tax and Alternative Sources of Federal Revenue, op. cit.*, pp. 37–42.

[10]George N. Carlson, *Value-Added Tax: European Experience and Lessons for the United States*, Office of Tax Analysis, Department of Treasury, October, 1980.

[11]Henry J. Aaron, Editor, "The Value Added Tax: Lessons from Europe," Brookings Institute, 1981, p. 16.
[12]*Ibid.*, p. 27.
[13]Carlson, *op. cit.*, pp. 65–69.
[14]This problem can be alleviated by the creation of a "rainy day" fund. Michigan enacted such a fund—the Budget Stabilization Fund—in 1977.
[15]Richard W. Lindholm, The Economics of VAT, D.C. Heath and Company, 1980, Lexington, MA, p. 40.
[16]Norman B. Ture, *The Value Added Tax; Facts and Fancies*, The Heritage Foundation, 1979, p. 39.
[17]Gerald M. Brannon, "Is the Regressivity of the Value-Added Tax an Important Issue?" *Tax Notes*, December 31, 1979, p. 881.
[18]If the VAT were levied as an additional tax, it would reduce consumption, as would any tax that fell on the consumer, and this would have a negative impact on all business.
[19]Lindholm, *op. cit.*, pp. 106–09.
[20]Charles E. McLure, Jr. and Norman B. Ture, *Value-Added Tax: Two Views*, American Enterprise Institute for Public Policy Research, 1972, Washington, DC.
[21]Aaron, *op. cit.*, p. 4.
[22]For a discussion of the question of tax shifting see Alan A. Tait, *Value Added Tax*, McGraw-Hill, 1971, p. 10.
[23]Henry Aaron, "Differential Price Effects of a Value Added Tax," *National Tax Journal*, Vol. XXI, No. 2, June 1968, pp. 162–75.
[24]Richard A. Musgrave and Peggy B. Musgrave, "Public Finance in Theory and Practice," New York, McGraw-Hill, 1973, pp. 396–410.
[25]Robert D. Ebel and James A. Papke, "A Closer Look at the Value Added Tax: Propositions and Implications," National Tax Association: Proceeding of Sixtieth Annual Conference, 1967, p. 157–58.
[26]James A. Papke, Discussion, Proceeding of the National Tax Association Seminar on "Balancing Our Federal-State-Local Fiscal System," *National Tax Journal*, Vol. 24, No. 3, September 1971.
[27]Advisory Commission on Intergovernmental Relations, *The Value-Added Tax and Alternative Sources of Federal Revenue*, Washington, 1973, p. 11.
[28]The Michigan sales tax is limited to 4% by the constitution. A vote of the people is required to raise the rate.
[29]ACIR, *op. cit.*, pp. 81 and 84.
[30]Charles McLure, Jr. and Norman B. Ture, op. cit., p. 3.
[31]Advisory Commission on Intergovernmental Relations, *Changing Public Attitudes on Governments and Taxes*, S–12, 1983, page 9.
[32]*Ibid.*, p. 50.
[33]*Ibid.*, pp. 111 and 12.
[34]*Ibid.*, pp. 8 and 40.
[35]John Shannon and L.R. Gabler. "The Impact of a Federal VAT on State-Local Finances," *Tax Policy*, October–November–December, 1972, Tax Institute of America.
[36]*Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, selected issues.
[37]*Ibid.*, p. 77.
[38]Advisory Commission on Intergovernmental Relations, *Regional Growth: Interstate Tax Competition*, A–76, U.S. Government Printing Office, Washington, DC, 1981.
[39]All business enterprises including sole proprietorships, partnerships and corporations.
[40]The sale of goods and services to the consumer is the final step in the production-distribution process. Therefore, personal consumption expenditures are a good measure of total value added during this process.
[41]*Survey of Current Business, op. cit.*
[42]Spending beyond income is made possible through the use of savings, gifts, sale of assets, and unreported income.
[43]The federal legislation could set the VAT rate at, say, 4%, and allow the states the option of levying 1%, either piggybacked or administered separately.

Federal Use of Selective Excise Taxes—Implications for State and Local Governments

INTRODUCTION

This chapter reviews the trends and current practices in federal, state and local use of selective excise taxes and presents within an intergovernmental framework the important fiscal issues that could arise with a dramatic increase in federal selective excise taxes. (Selective excise taxes in this context refers to alcoholic beverages, small cigarettes and motor fuel taxes. Motor fuel taxes include gasoline, gasohol and diesel fuel.)[1]

Background

Although both the federal government and the state-local sector have taxed these sources (alcoholic beverages, cigarettes, and motor fuels) for decades, state taxes have increased at a faster clip than federal excise tax collections. As a result, states have claimed an increasing share of the revenues from selected excise taxes. For example, the state share of tobacco tax revenues almost doubled from 1964 to 1982, amounting to 62% of total revenues collected from this tax source in 1982, compared to only 38% in 1964.[2] The same pattern is true in the motor fuel tax field: The state share of total motor fuel tax revenues rose from 60% in 1964 to 68% in 1982. The state share of alcohol

beverage tax revenues also grew between the years 1964 and 1982.

Tax overlapping in the selective excise field extends beyond the federal-state domain. In FY 1983, a large number of local governments levied cigarette excise taxes. A total of six states authorized local governments to levy such a tax and 350 cities and 20 counties chose to do so.[3] Likewise, 806 counties (including parishes), cities and municipalities levied excise taxes on alcoholic beverages.

The Causes of an Increased State and Local Share

Sharply differing tax rate policies explain why state selective excise tax collections grew at a relatively faster pace than did federal collections. *Table 5–1a* presents figures on federal and state distilled spirits tax rates for the period 1961 to 1982. In 1951, the federal government froze its tax rates on distilled spirits, which contribute the bulk of revenues from alcoholic beverages. In contrast, state and local tax rates on distilled spirits were increased repeatedly. A major factor responsible for the federal indifference to the use of alcoholic beverage excise taxes was the intense federal use of a progressive income tax. As a result, the federal share of total government revenues from alcoholic beverages dropped from 76% of the total in 1964 to 61% in 1982. (See *Table 5–1b*.)

Until 1982, the trend in federal cigarette tax

Table 5–1a

FEDERAL AND STATE USE OF ALCOHOLIC BEVERAGE EXCISE TAXES

Distilled Spirits Tax Rates, Selected Years, 1961–82[1]

	1961	1971	1980	1981	1982
Federal[2]	$10.50	$10.50	$10.50	$10.50	$10.50
State[3]	4.12	5.63	7.37	7.75	7.87

[1]Federal figures are those for federal fiscal years. State figures are those for calendar years.
[2]Federal rates are those per proof gallon. Note: a "proof gallon" is a gallon of 100 proof or 100° spirits which contains 50% alcohol. Example: The federal excise tax of $10.50 per proof gallon is levied on a gallon of 80 proof at $8.40 federal excise tax ($10.50 × .80 = $8.40). Lower proof spirits are taxed proportionately.
[3]State figures are average state (license and control) tax revenues per proof gallon.
SOURCE: ACIR staff computations based on "Public Revenues from Alcoholic Beverages 1981–82," and "Annual Statistical Review 1982" Tables 36 and 41, Distilled Spirits Council of the U.S.

Table 5–1b

Tax Collections from Alcoholic Beverages for Selected Fiscal Years, 1964–82[1] (dollar amounts in thousands)

Year	Federal[2]	Federal Share of Total Tax Collections	State[3]	State Share of Total Tax Collections
1964	$3,478,000	76.0%	$1,105,741	24.0%
1971	4,781,000	71.0	1,969,141	29.0
1980	5,685,000	64.5	3,130,742	35.5
1981	5,667,000	63.0	3,321,604	37.0
1982	5,439,000	61.0	3,438,930	39.0

[1]Federal tax collections are those for the federal fiscal year. State tax collections are those for state fiscal years.
[2]All figures exclude license fees and occupation taxes.
[3]State tax collections include excise tax revenues and net profits for control state governments.
SOURCE: ACIR staff computations based on *Governmental Finances* (annual publication) Table 4; control state net profits were obtained from *State Government Finances*, Table 15, U.S. Dept. of Commerce, Bureau of the Census.

Table 5-2
FEDERAL AND STATE USE OF CIGARETTE EXCISE TAXES
Cigarette Tax Rates, Selected Fiscal Years, 1950–83[1]

	1950	1960	1970	1980	1981	1982	1983
Federal	7¢	8¢	8¢	8¢	8¢	8¢	16¢
State[2]	3.2	4.7	10.2	13.1	13.2	13.5	14.7

[1]Years cited are those ending June 30 for both levels of government.
[2]State figures represent weighted average tax rates. The tax rate refers to cents per pack of 20 cigarettes. The weighted average state tax rate was computed by multiplying each state's percentage of total national cigarette sales by its respective cigarette tax rate. The sum of these products is the weighted average cigarette tax rate.

SOURCE: The Tobacco Institute, "The Tax Burden on Tobacco," Historical Compilation, Vol. 18, 1983, p. 6 and 192.

Tobacco Tax Collections, Selected Fiscal Years, 1964–83[1]

Year	Federal (millions)	Federal Share of Federal-State Cigarette Tax Collections	State (millions)	State Share of Federal-State Cigarette Tax Collections
1964	$2,048	61.5%	$1,280	38.5%
1970	2,094	6.0	2,347	54.0
1980	2,446	9.0	3,874	61.0
1981	2,584	39.0	4,047	61.0
1982	2,539	38.0	4,135	62.0
1983	4,140	51.0	4,001	49.0

[1]Approximately 98% of tobacco tax collections for both levels of government comprise small cigarette tax revenues. Federal tax collections are those for the federal fiscal year. State tax collections are those for state fiscal years.
SOURCE: ACIR staff computations based on *Governmental Finances* (annual publication) Table 4; the 1983 federal figure was obtained from *Quarterly Summary of Federal, State and Local Tax Revenue*, July–September 1983, Table 2; the 1983 state figure was taken from *State Government Tax Collections 1983*, Table 1, U.S. Department of Commerce, Bureau of the Census.

rates closely matched that of alcoholic beverage tax rates: The federal government chose to maintain a stable 8¢ per pack federal cigarette tax rate for over two decades. In comparison, states raised their cigarette tax rates periodically. Between 1950 and 1970, state cigarette taxation was marked by a sharp increase in tax rates. Two factors contributed to this development: a persistent need for additional tax revenue to meet the states' expanding expenditure commitments and a marked decline in concern for the effect of tax increases on consumption.[4] Between 1970 and 1982, state cigarette tax rates increased gradually but steadily. (See *Table 5–2*.)

The federal tax on motor fuel was a modest 1.5¢ per gallon in 1950. Between 1950 and 1960, federal excise tax rates on motor fuel increased to 4¢ per gallon, where it remained for more than two decades. Conversely, state governments have imposed motor fuel tax rates ranging from an average of 4.65¢ per gallon in 1950 to an average of 9¢ per gallon in 1982. In 1983, state taxes on motor fuel ranged from a low of 5¢ per gallon on gasoline in Texas to a high of 17¢ in Minnesota. Effective July 1, 1984, Washington state's tax will be 18¢ per gallon.[5] (See *Table 5–3*.)

The Fiscal Importance of Selective Excise Taxes to States and Localities

When faced with a revenue shortfall, states and localities usually first choose to raise selective excise taxes on alcoholic beverages and cigarettes in particular because these "sin"

taxes involve minimum political risk. While such increases serve to generate only small amounts of additional revenue, they are frequently sufficient to fill relatively modest revenue gaps. Hence, the use of these tax sources offers to states and localities budgetary flexibility which is especially important in times of fiscal distress. Recent state actions provide evidence of frequent use of selective excise tax hikes. In 1983, to offset fiscal hardships brought about by the major recession and federal-aid cutbacks, 17 states raised the cigarette tax, 14 the alcoholic beverage tax, and 19 the motor fuel tax.[6]

THE FEDERAL THREAT

The threat of federal tax "preemption" of state use of selective excise tax revenues now constitutes a real danger to the state-local tax system.

Recent Federal Tax Hikes

After two decades of indifference to selected excise taxes, the federal government has now decided to make more intensive use of these revenue sources. Provisions of the *Tax Equity and Fiscal Responsibility Act of 1982* temporarily doubled the federal cigarette excise tax rate on cigarettes from 8¢ to 16¢ per pack for the period January 1, 1983, through September 30, 1985. Similarly, the *Surface Transportation Assistance Act of 1982* raised the federal excise tax rate on gasoline from 4¢ to 9¢ per gallon—a 125% increase effective

Table 5-3

FEDERAL AND STATE USE OF MOTOR FUEL EXCISE TAXES[1]

Motor Fuel Tax Rates, Selected Fiscal Years, 1950–83

	1950	1960	1970	1980	1981	1982	1983
Federal	1.5¢	4¢	4¢	4¢	4¢	4¢	9¢[2]
State[3]	4.65	5.94	7.01	8.25	9.11	9.11	[4]

[1]The term "motor fuel" refers to gasoline, gasohol, and diesel fuel. The federal tax on diesel fuel began in 1951.
[2]The federal tax rate remained at 4¢ per gallon until May 31, 1983.
[3]These figures represent state weighted average tax rates.
[4]The figure for this year is unavailable.
SOURCE: Federal Highway Administration, *Highway Statistics,* (annual publication) U.S. Department of Transportation. Federal figures were obtained from Table FE-101 and state figures were taken from Table MF-1.

Motor Fuel Tax Collections, Selected Fiscal Years, 1964–83[1]

Year	Federal (millions)	Federal Share of Federal-State Motor Fuel Tax Collections	State (millions)	State Share of Federal-State Motor Fuel Tax Collections
1964	$2,696	40.0%	$ 4,059	60.0%
1970	3,776	37.5	6,283	62.5
1980	4,887	33.5	9,722	66.5
1981	4,678	32.5	9,734	67.5
1982	4,950	32.0	10,437	68.0
1983	5,787	35.0	10,793	65.0

[1]The term "motor fuel" refers to gasoline, gasohol, and diesel fuel. Federal tax collections are those for the federal fiscal year. State tax collections are those for state fiscal years.
SOURCE: ACIR staff computations based on *Governmental Finances* (annual publication) Table 4; the 1983 federal figure was obtained from *Quarterly Summary of Federal, State and Local Tax Revenue*, July–September 1983, Table 2; the 1983 state figure was taken from *State Government Tax Collections 1983*, Table 1, U.S. Dept. of Commerce, Bureau of the Census.

April 1, 1983, to September 30, 1988, after which the pre-1983 rates are scheduled to be restored.[7]

The alcoholic beverage tax was the only major selective excise tax to be spared a federal tax increase in the early '80s. State and local officials now believe that it is just a question of time before a federal excise tax increase will be enacted for distilled spirits. Their fears stem from provisions in a House bill (HR 4170) for an increase in the federal excise tax rate on distilled spirits, raising the current rate of $10.50 to $13.75 per proof gallon effective from October 1, 1985, to December 31, 1987. State and local officials are also concerned about an extension of the federal increase in cigarette excise tax rates beyond 1985.[8]

This renewed federal interest in making greater use of selective excise taxes is especially surprising to state and local officials because in early 1981 these tax sources were specifically mentioned by President Reagan for turnback to the states as compensation for added state-local expenditure responsibility.

The Medicare Financing Recommendations

The federal threat to state and local use of selective excise taxes takes on a particular urgency in light of a recent recommendation made by the Advisory Council on Social Security. Opposing any increase in the use of general revenues to finance the Medicare program, the council concluded:

> In an era when the government is experiencing substantial annual deficits, reliance on general revenues would only serve to exacerbate the problem of increasing deficits.[9]

The council urged Congress to raise federal excise tax rates on alcohol and tobacco, with the increased revenues to be earmarked for part of the $200 to $300 billion Medicare budget deficit which is projected by 1995. It did not specify the amount to be raised and earmarked but suggested that the amount be determined by Congress, for implementation in 1985.

This recommendation marks a distinct departure from past Social Security financing practices. When faced with a revenue shortfall, the federal government has always increased Social Security tax receipts by either raising tax rates on wage income or by broadening the base. But the recent Social Security tax hikes and fading public support for the system now make it increasingly risky to keep raising these taxes.

The Impact of a Federal Increase of Selective Excise Taxes on States and Localities

Raising excise tax rates to generate badly needed federal revenues is an action that will certainly heighten federal and state-local fiscal tensions. In addition to making it more difficult for the state-local sector to raise taxes—due to increased resistance from citizens who would have just faced an increase in federal tax rates—a dramatic increase in federal excise tax rates would also reduce consumption and thereby erode the tax bases. For example, a 1¢ increase in the gasoline tax rate is estimated to lower consumption by 0.3% in the long run, thereby further weakening state-local revenue systems. Moreover, because gasoline is consumed more heavily in the country's southern and western regions and in rural areas generally, any major increase in federal gasoline tax rates would have an uneven geographic impact.[10] In addition, a substantial increase in federal motor fuel excise tax rates would in the long run weaken revenue systems in the automobile manufacturing states. The possible debilitating effect of any increase in federal gasoline tax rates on state use of this tax source has been clearly summarized in a Congressional Budget Office (CBO) report:

> Further increases in the federal gasoline tax could make it more difficult for states to raise their gasoline taxes. The new *Surface Transportation Assistance Act* requires state matching funds for federally assisted projects and states have other financing needs as well. Some consideration should be given therefore to the total potential burden that can be placed on this revenue source.[11]

An increase in the motor fuel tax will have the effect of raising the overall price level in

the economy because higher costs of doing business are reflected in higher prices for goods and services sold both to consumers and other businesses; this in turn has the effect of raising the Consumer Price Index.[12] The increase in the motor fuel tax of 5¢ per gallon, with the passage of the *Surface Transportation Assistance Act of 1982*, is generally considered to be responsible for part of the increase in the retail price of motor fuel in 1983.

Some argue that increases in federal excise taxes on motor fuel, while they inhibit state and local ability to raise similar taxes, essentially benefit states and localities in the form of additional funds for the Federal Aid Highway System. The *Surface Transportation Assistance Act of 1982* raised the federal tax on motor fuel from 4¢ to 9¢ per gallon, with one penny of the 5¢ increase dedicated to public transit. Hence, approximately 95% of the federal motor fuel tax revenues are given back to the states in the form of Federal Aid Highways Fund. The balance, 5%, is spent on the Federal Public Transit System and administration of the Federal Aid Highway System. Thus, higher federal gasoline tax rates may not be considered at direct odds with state and local taxing and spending needs.

Although state and local governments are the beneficiaries of an increase in the federal motor fuel excise tax rate, each state does not receive additional funds proportionate to the federal increase in tax rates.[13] Most federal highway grant moneys are distributed to the states on a formula basis. Formulas vary according to program needs. Since the apportionment of federal-aid highway funds is dependent on factors such as age of the highways, a state's share of the cost to complete the interstate highway system and mileage of rural and intercity mail routes relative to those of the nation, states are not equal beneficiaries of an increase in federal-aid highway funds. Thus federal highway grants create winners and losers. Moreover, states may choose to spend an increase in motor fuel tax revenues differently from that mandated by the federal highway grant system. Hence an increase in federal motor fuel excise tax rates, while benefiting the states, restricts their discretion in spending these funds, and makes it more difficult for them politically to raise similar tax rates.

Likewise, an increase in the federal cigarette excise tax will make it more difficult for states to raise their tax rates and will increase the overall tax burden on cigarettes. The current federal excise tax rate of 16¢ per pack represents about 20% of the current gross cost per pack. Historically, raising federal cigarette excise tax rates has been justified by the sumptuary nature of this product.

In a study of the impact of the federal cigarette tax increase on state cigarette tax revenues, the Treasury Department estimated a reduction in state cigarette tax revenues of $176 billion, assuming that state tax rates were unchanged.[14]

State and local policymakers are also anxious about any increase in federal excise tax rates on distilled spirits because of its effect on the total tax burden. Nationally, approximately 44% of the retail price of a typical bottle of spirits is added by federal, state and local taxes. Federal taxes comprise 25% and state and local taxes 19% of the retail price.[15]

A substantial increase in the federal excise tax on distilled spirits will have a depressing effect on consumption and will cut the revenues from this source for all three levels of government. Assuming a price elasticity estimate of −0.5 (that is, a 1% increase in price results in an 0.5% decrease in consumption), a 10% federal excise tax increase on distilled spirits will decrease consumption nationally by 5%. (This figure will, of course, vary somewhat from state to state.)[16]

The states' concern about federal excise tax increases was expressed in 1982 by Vermont's Governor Richard A. Snelling, then chairman of the National Governors' Association. In a letter to President Reagan he wrote:

> These taxes have long been regarded as state revenue sources and remain so. The governors share your desire to return revenue sources to the states, not remove them.[17]

OTHER CONSIDERATIONS

Selective excise tax increases, particularly those levied on alcoholic beverages and cigarettes, will have a more burdensome effect on low-income than on high-income persons.[18]

For example, in the case of distilled spirits it is argued that the $125 tax paid yearly by the average household is relatively more burdensome on individuals with an income of $10,000 than on those with an income of $50,000.[19]

Any increase in the federal excise tax rate on motor fuels would also have an adverse impact on low-income groups. Given the regressive nature of this tax, low-income families would suffer the most as they pay a higher percentage of their income for gasoline than do high-income families. For example, a 1981 Congressional Budget Office study found that households with an annual income of less than $7,400 spent approximately 8.2% of their income on gasoline, whereas households with income of $36,900 or more spent on average 3.7%.[20]

The intent of the motor fuel excise tax rate increase of 1983 was to allocate the additional revenues to highway-related needs—not to use them to reduce the federal budget deficit. It is argued, however, that the increase in motor fuel excise taxes may, in fact, add to the budget deficit. A Congressional Research Service study maintains that this could occur because:

> ... business purchasers of fuel can deduct its cost (including tax) from income and thereby reduce income tax liability, and sellers of fuel receiving less revenue per gallon probably would experience lower before-tax profits and therefore incur less income tax liability.[21]

This study found that businesses account for one-fourth of motor fuel purchases. Consequently, it estimated, these income tax provisions can amount to $1.4 billion in lost revenues to the U.S. Treasury.

The slow growth of cigarette and alcoholic beverage taxes also serves as an argument against earmarking revenue from these sources for a fast-growing program such as Medicare. Because of this revenue-expenditure mismatch, a federal decision to raise these taxes and earmark the revenues for a Medicare-type program does not appear to be a wise financing policy. To keep pace with growing Medicare expenditures, the federal government would have to resort to tax rate increases time and again.

In addition to the adverse effects noted above, an increase in federal excise taxes on alcoholic beverages provides an added incentive for the production and consumption of illegal spirits. Such activities will both endanger tax revenues because it will reduce the alcoholic beverage excise tax base, and result in high enforcement costs and dangers to health.

THE AD VALOREM APPROACH

In view of the adverse effects that abrupt and steep increases in federal excise taxes could have on states and localities, Congress could opt for gradual growth by dropping the present unit method and substituting an ad valorem approach—an approach that is increasingly popular among the states[22]. Under the unit method, the tax is set as a number of dollars or cents per unit of product. As a result, inflation erodes the effective tax rate unless there are constant upward adjustments. On the other hand, an ad valorem tax is set as a percentage of either the manufacturer's or wholesaler's price.[23] For example, the state of Massachusetts levies an ad valorem tax on motor fuel. That tax is set as 10% of the wholesale price per gallon, with a minimum base rate of 11¢ per gallon.

Under a unit method, tax revenue from each product is the tax rate multiplied by the number of units sold, meaning that tax revenues will grow as consumption grows. Under the ad valorem method, the revenue yield is a percentage of sales and therefore depends directly upon both the price of the product and the quantity sold. Tax revenues from an ad valorem tax will increase at the rate of increase in real consumption plus the rate of increase in prices. This means that when prices are rising, tax collections from an ad valorem tax will always grow faster than the unit method.

An investigation of the two methods of taxation with respect to equity suggests the ad valorem method ranks higher than the unit method. With a unit tax each consumer has the same tax liability per unit of purchase irrespective of the price of the product (whether low or high priced); ad valorem means that consumers of higher-priced products necessarily pay a higher per unit tax. To be more specific, with an ad valorem method of

taxation the purchaser of an expensive bottle of Scotch will pay more tax than one who buys a cheap blend of domestic whiskey.

Replacing the present federal selective excise unit taxes with an ad valorem method may entail initial administrative costs occasioned by the need to institute new tax collection procedures. Moreover, the ad valorem tax may be difficult to administer. When set as a percentage of the manufacturer's price, this tax is fraught with possibilities of fraud—particularly in situations where the manufacturing and wholesale plants are singly owned and operated. In such a setup, incentives exist for the manufacturer to deflate the sale price of commodities shipped out to the wholesale unit. In doing so, the manufacturer succeeds in reducing the individual tax burden and consequently in lowering the federal tax base. It is at the wholesale level that the parent company succeeds in recapturing the lost profits incurred at the manufacturer's level as a result of misquoted sale prices.

To overcome these administrative drawbacks, Congress may consider retaining the present unit method of taxation, while at the same time indexing the tax rate to the consumer price index of each excise commodity. This method would also incur minimum change in the present system of taxation and would ensure that the tax burden remains the same over time in relation to the price of the products. As the prices of selective excise tax commodities rose gradually, a variable federal excise tax rate would gradually increase federal revenues from these sources. This, in turn, would have less of an adverse impact on states and localities than abrupt increases in unit tax rates—an approach now being considered by some states. For example, it is estimated that the state of Louisiana has lost $192 million since 1972 by using a unit tax on beer, alcohol, tobacco and gasoline, rather than indexing these tax rates to prices.[24] The state legislature and the governor recently approved a tax bill that will, in addition to increasing the tax rate on gasoline and cigarettes, institute a new ad valorem tax on alcoholic beverage products. The state will impose a new 5% tax on the retail price of beer, wine and distilled spirits sold in establishments that are licensed to provide on-premise consumption.

SUMMARY OF MAJOR FINDINGS AND POLICY CONCLUSIONS

Although both the federal government and the state-local sector have levied excise taxes on alcoholic beverages, cigarettes and motor fuel for decades, the state share grew faster than did federal selective excise tax collections. Consequently, states have claimed an increasing share of total selective excise tax revenues. For example, the state share of tobacco tax revenues almost doubled between 1964 and 1982—comprising 62% of total revenues collected from this source in 1982 compared to 38% in 1964. Likewise, the state share of total alcoholic beverage tax revenues rose from 24% in 1964 to 39% in 1982.

Prior to 1982, sharply differing tax-rate policies explained why state-local selective excise tax collections grew relatively faster than did federal collections. In 1951, the federal government froze its tax rate on distilled spirits—a tax which contributes the bulk of alcoholic beverage revenues. In contrast, state and local tax rates on distilled spirits have repeatedly increased. The same pattern is true in the motor fuel tax field. Since 1960, the federal tax rate on motor fuel has remained at 4¢ per gallon. Conversely, state governments have imposed motor fuel tax rates ranging from an average of 4.65¢ per gallon in 1950 to an average of 9¢ per gallon in 1982.

Although cigarette and alcoholic beverage tax receipts constitute a relatively small percentage of total state-local tax collections, continued access to such revenue sources is of real concern to states and localities. These taxes are the instruments of choice when relatively small amounts of revenue are needed because there is less political opposition to raising these "sin" taxes. Recent state actions provide evidence of frequent use of selective excise tax hikes. In 1983—to offset fiscal hardships occasioned by the major recession and federal-aid cutbacks—17 states raised the cigarette excise tax, 14 the alcoholic beverage tax, and 19 the motor fuel tax.

The threat of federal tax "preemption" of state use of selective excise taxes now constitutes a clear and present danger to state tax

systems. This is particularly so, because the Advisory Council on Social Security recently recommended that Congress raise the tax rates on cigarettes and alcoholic beverages and earmark the proceeds to help cover part of the projected Medicare Fund deficit. The slow growth of cigarette and alcoholic beverage taxes is a convincing argument against earmarking revenue from these sources for the rapidly growing Medicare program: To keep pace with growing Medicare expenditure needs, the federal government would have to resort to periodic tax rate increases. Raising federal excise tax rates to generate urgently needed federal revenues will make it more difficult for the state-local sector to raise similar taxes.

Other important considerations—especially the regressivity of the cigarette, alcoholic beverage and motor fuel taxes—also argue against a major increase in federal tax rates. It is generally believed that selective excise tax increases will have a more burdensome effect on low-income than high-income persons. For example, a 1981 Congressional Budget Office study found that households with an annual income of less than $7,400 spent an average of 8.2% of their income on gasoline, whereas households with income of $36,900 or more spent on average 3.7%.

If the federal government decides to make somewhat greater use of alcoholic beverage and cigarette excise taxes, Congress could achieve that objective by indexing the present unit tax to the Consumer Price Index. This approach would gradually increase the federal tax yield thereby having less adverse fiscal impact on states and localities than would an abrupt increase in unit tax rates.

FOOTNOTES

[1]Due to the difficulty in obtaining information on the use of selective excise taxes by localities, this chapter focuses more on state and federal use of these tax sources.

[2]Tobacco tax revenue figures have been used as a proxy measure for cigarette tax revenues. Approximately 98% of tobacco tax collections for both levels of government are comprised of small cigarette tax revenues.

[3]These figures were obtained from the Tobacco Institute, *Municipal Cigarette Tax Survey FY 1983*, Washington, DC.

[4]The Advisory Commission on Intergovernmental Relations (ACIR), *State-Federal Overlapping in Cigarette Taxes*, A–24, September 1964, Washington, DC.

[5]Highway Users Federation, *19 States to Consider Seat Belt Laws This Year, Gas Tax Hike Possible in 23 States*. January 24, 1984, Washington, DC.

[6]The Advisory Commission on Intergovernmental Relations (ACIR), *Significant Features of Fiscal Federalism, 1982–83*, M–137, Table 38, p. 52, January 1984, Washington, DC.

[7]Congressional Budget Office (CBO) *Reducing the Federal Deficit: Spending and Revenue Options*, February 1983, Washington, DC.

[8]For a more detailed discussion of recent federal excise tax proposals considered in Congress, see Leon W. Klud *Recent Developments in Federal Excise Tax Policy 1980–1983*, a paper presented at the 1983 Annual Tax Conference of the National Tax Association—Tax Institute of America, Washington, DC.

[9]Advisory Council on Social Security, *Executive Summary of Recommendations*, December 31, 1983, Washington, DC. One of the factors influencing the council's decision to recommend that federal alcoholic beverage and cigarette taxes be increased and earmarked for Medicare was the demonstrated correlation between the use of these products and increased health care costs.

[10]CBO, *Reducing the Federal Deficit*, p. 256.

[11]CBO, *Ibid.*, p. 257.

[12]Gelb, A. Bernard, *Economic Impacts of an Increase in the Motor Fuel Tax*, Congressional Research Service, June 1983, Washington, DC. The author argues that a 2% rise in the price of motor fuel by itself raises the Consumer Price Index by only 0.12% since gasoline and diesel fuel purchases represent about 6% of total expenditures covered by the index.

[13]Congressional Budget Office, *The Federal Government in a Federal System: Current Intergovernmental Programs and Options for Change*, August 1983, Appendix A, p. 119. Washington, DC.

[14]Toder, Eric, *Impact of the 1982 Tax Law Change on State Cigarette Tax Revenues*, U.S. Department of the Treasury, August 1982. The author cautions readers that since these estimates do not include any likely changes in state cigarette tax rates in response to the TEFRA increase the estimates are not to be regarded as a forecast of state revenue changes.

[15]Distilled Spirits Council of the U.S. (DISCUS), *State Impact from an Increase in the FET on Spirits*, July 1983, Washington, DC, p. 4.

[16]DISCUS, *Ibid.*, p. 10.

[17]DISCUS, *Fact Sheet—Importance of Alcohol Beverage Revenues to States*, July 1, 1983, p. 5.

[18]Pechman, Joseph A., *Issues in Excise Taxation* to be found in *Federal Tax Policy*, Brookings Institution, 1983, Washington, DC.

[19]DISCUS, *State Impact from an Increase in the FET on Spirits*, p. 3. Of the $125 paid yearly by an average household on distilled spirits it is estimated that $90 are distilled spirits taxes and $35 are distributors' markups.

[20]Congressional Budget Office, *Low Income Energy Assistance: Issues and Options*, July 1981, p. 13, Washington, DC.

[21]Gelb, Bernard A., *Ibid.*, p. 4.

[22]In 1983, ad valorem taxes were adopted by states as follows: 11 states and the District of Columbia on gasoline, one state on cigarettes, one state on alcoholic bev-

erages. Source: ACIR, *Significant Features of Fiscal Federalism 1982–1983*. Tables 51–54, M–137, January 1984, Washington, DC.

[23]The Treasury Department has estimated that if the federal government were to generate the same amount of alcoholic beverage revenues as in 1982, via the ad valorem approach, it would need to levy a 30% rate on distilled spirits, a 12% rate on beer, and 2%, 8% and 20% rates respectively on dry, sweet and sparkling wine. Source: Office of the Secretary of the Treasury, Office of Tax Analysis, *Raising Revenues Through Alcoholic Beverage Excise Taxes*. Estimates provided to the Advisory Council on Social Security, September 26, 1983.

[24]*State Budget and Tax News*, Vol 3, No. 5, March 1, 1984, p. 5. Published by Capitol Publications Inc., Virginia.

Chapter 6

Tax-Exempt Bonds

INTRODUCTION

The long-established exemption from federal taxation of interest on bonds issued by states and local governments has become the subject of heated controversy in the past five years. The controversy has been triggered by an explosive growth in the volume of tax-exempt bonds issued to benefit private users—bonds ranging from mortgages for purchases of single-family homes, to loans for corporations building pollution control facilities, and to loans to fund facilities for industrial development.

The national view, and that held by most economists, is highly critical of the practice of tax exemption of interest on private purpose bonds. From this point of view, there are three undesirable aspects:

1. The ever-increasing volume of private tax-exempt bonds drives up interest rates for all tax-exempt bonds and makes it more expensive for states and local governments to finance traditional government functions such as streets, sewers, and school buildings. Although the proliferation of private purpose bonds is only one cause of increased tax-exempt interest rates (federal anti-inflation policies and a shift in the holders of tax-exempt bonds from financial

institutions to individuals are other important causes), it is a significant cause—and one within the control of state and local governments.

2. The federal government's revenue losses associated with tax exemption of interest on state and local issues are also mounting rapidly as the volume of tax-exempt issues increase. In a time of budget stringency and large deficits, federal revenue losses associated with exemption of interest on state and local private purpose bonds stand out as an obvious and inviting target for those searching for new sources of revenue.

3. Federal officials are also critical of what they consider serious inefficiencies created by sending financial aid to state and local governments via the tax exemption route. The first inefficiency is the fact that not all of the federal assistance goes to the beneficiaries of bond financing; instead it is diverted to upper-income holders of the bonds (who may receive higher interest rates than those necessary to induce them to purchase tax-exempt bonds) and to persons involved in issuing the bonds (bond lawyers and salesmen, and financial institutions). The second source of inefficiency is the random nature of the federal aid, because the assistance is triggered by state or local activities without regard to federal economic development policies, need factors or federal standards. A third source of inefficiency is allocational, relating to the diversion of scarce capital resources from the private sector to projects funded by tax-exempt bonds without regard to relative economic merits.

While interesting, these arguments are largely irrelevant to the real world concerns of state and local policymakers. Governors, mayors and county officials live and work in a highly competitive milieu in which their political successes are gauged by the economic development and prosperity of their jurisdictions. Only through economic growth can states, cities and counties attract industry, grow prosperous and increase the revenues needed to provide services for their constituents. Governors, mayors and county officials view private purpose tax-exempt bonds as a unique and fiscally painless tool for influencing economic development and industrial diversification. The use of tax-exempt bonds for economic development becomes increasingly important to them as federal grants are cut back and officials are hard put to find economic incentives to lure industries to their areas.

State and local officials see federal revenue losses and allocational inefficiencies as far less important than the preservation of one of their few remaining tools for influencing economic growth. Increases in tax-exempt interest rates caused by a proliferation of tax-exempt bonds pose a relatively remote and indefinable threat. These officials are much more impressed by growing evidence of abusive use of private purpose tax-exempt bonds. They are willing to accept federal government curbs on such abuses because public indignation about abuses poses a threat to continued public acceptance of the use of all tax-exempt bonds.

This chapter discusses the controversy over tax exemption of private purpose bonds. It is divided into three parts: (1) an examination of the reasons for the recent growth in the use of private purpose tax-exempt bonds; (2) a discussion of recent changes in the market for tax-exempt bonds and how they relate to the concerns of national officials and the growing pressures for regulations and control of private purpose bonds; and (3) presentation of the ACIR findings on the uses of private purpose bonds.

GROWTH IN THE USE OF TAX-EXEMPT FINANCING BY STATES AND LOCAL GOVERNMENTS

Tax exemption of interest on the bonds issued by states and localities stems from two roots: The first is a series of Supreme Court decisions between 1819 and 1895 establishing the doctrine of "reciprocal immunity," which holds that states are immune from federal interference just as states may not interfere with federal government affairs.[1] The second is the 16th Amendment and federal income tax law of 1913 (and subsequent statutes). The 16th Amendment gives Congress the right to collect taxes on income "from whatever source de-

rived," causing some to argue that that amendment overturned the doctrine of reciprocal immunity. Opponents of this position, citing the legislative history of the 16th Amendment as well as a series of Supreme Court decisions, have maintained that the phrase was intended to apply only to the distinction between direct and indirect taxes. In the continued absence of a definitive Supreme Court ruling, questions of the Constitutional and legal status of the tax exemption of interest on state and local bonds have continued to be hotly debated—particularly since 1968, when Congressional attempts to regulate the municipal bond market resulted in the first law restricting industrial revenue bonds.

In recent years, the debate has intensified as the result of drastic changes in the tax-exempt bond market: States and local governments have begun to issue bonds to finance a variety of new functions, the volume of bonds outstanding has multiplied, and so has the cost to the federal government of the exemption from federal taxes of the interest on the bonds.

Recent public attention has focused on the spectacular increase in the issuance of long-term bonds, which rose from $18 billion in 1970 to $56 billion in 1980, $87.5 billion in 1982, and an estimated $91.8 billion in 1983.[2] (See *Table 6–1* for figures from 1980 through 1982.) The sharp increase between 1980 and 1982 took place throughout a period of record-high interest rates, which peaked at slightly above 13% in January 1982.[3]

Table 6–1

TRENDS IN THE VOLUME OF NEW LONG-TERM TAX-EXEMPT BONDS BY TRADITIONAL AND NONTRADITIONAL PURPOSES, 1970–82

(in billions of dollars)

Traditional Public Purposes	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Education	$ 5.0	$ 5.7	$ 5.0	$ 4.8	$ 4.7	$ 4.4	$ 4.9	$ 5.0	$ 4.7	$ 4.6	$ 4.1	$ 3.4	$ 4.7
Transportation	3.2	4.3	3.0	1.6	1.7	2.2	3.0	3.0	3.5	2.4	2.6	3.5	6.2
Water and Sewer	2.2	3.2	2.4	2.3	2.0	2.5	3.0	3.3	3.3	3.1	2.9	2.9	5.0
Public Power	1.1	1.3	1.2	1.6	1.5	2.2	2.7	3.4	4.5	3.5	3.4	6.3	7.1
Other/Unidentified	5.7	7.3	6.8	3.6	7.6	11.6	10.5	11.4	11.4	8.3	9.5	10.1	16.8
Total	17.2	21.8	18.4	13.9	17.5	22.9	24.1	26.1	27.4	21.9	22.5	26.2	39.8
Nontraditional Purposes													
Housing	0.7	2.1	2.2	3.2	1.9	1.6	3.4	3.7	6.1	12.4	15.8	6.2	14.3
Industrial Development	0.1	0.1	0.3	2.7	0.5	1.3	1.5	2.2	3.4	7.1	9.2	12.6	12.7
Pollution Control	—	—	0.6	1.7	2.2	2.5	1.9	2.6	2.7	2.1	2.3	4.3	5.3
Hospitals	—	0.4	0.5	0.7	0.8	2.0	2.3	3.3	2.1	3.4	3.6	5.4	9.5
Student Loans	—	—	—	—	—	—	0.1	0.1	0.3	0.6	0.5	1.0	1.6
Total	0.8	2.6	3.6	8.3	5.4	7.4	9.2	11.9	14.6	25.6	31.4	29.5	43.4
Refundings	0.1	0.5	1.7	1.6	0.7	1.1	3.2	8.8	8.7	1.2	2.0	1.3	4.3
Total	18.1	24.9	23.7	23.8	23.6	31.4	36.5	46.8	50.7	48.7	55.9	57.0	87.5

— Figures not available.

Note: Original data from Public Securities Association, Municipal Finance Officers Association, Congressional Budget Office and Federal Reserve Board. Methodology developed by the National League of Cities. These figures are primarily based on PSA data. Other sources are used where PSA data are not available. CBO estimates are used for small issue IDBs beginning in 1975 and total volume figures are adjusted accordingly to compensate for their increase above PSA's publicly reported amount. IDB figures for 1982 are preliminary estimates.

Source: General Accounting Office, *Trends and Changes in the Municipal Bond Market....*, GAO–PAD–83–46, September 12, 1983, p. 48.

Table 6–2

HOUSING BOND TRENDS, 1970–82

(in billions of dollars)

	1970	1975	1976	1977	1978	1979	1980	1981	1982
Housing	$0.7	$1.4	$2.7	$4.1	$7.0	$12.1	$14.6	$5.6	$14.3
Single-family	—	—	.7	1.0	3.4	7.8	10.8	3.6	8.6
Multifamily	—	.9	1.4	2.5	2.4	2.7	2.2	1.1	5.2
Veterans	—	.6	.6	.6	1.2	1.6	1.6	.9	.5

— Figures not available.

Note: Although the available data which break out the different categories of housing bonds vary slightly from those presented in *Table 1* because of differences in sources, they are presented here as an indication of the trends in the components.

Areas of Growth

Table 6–1 indicates the functional areas in which the most significant growth has occurred between 1970 and 1982. The traditional governmental—or public purpose—functions show an increase from $17.2 billion in 1970 to almost $40 billion in 1982. Bonds issued for education actually decreased slightly as the baby boom generation pressures for expansion of public elementary and secondary school construction slackened. Transportation bond volume and water and sewer bond volume doubled—which barely kept pace with inflation; their combined volume rose from $5.4 billion in 1970 to $11.2 billion in 1982.[4] Public power bonds increased from $1.1 billion in 1960 to $7.1 billion in 1982. Other and unidentified uses rose from $6 billion to $17 billion.

The volume of long-term bonds issued for private (nontraditional) purposes such as housing, industrial development, pollution control, hospitals, and student loans increased much more sharply—from a total of less than a billion dollars in 1970 to $31 billion in 1980, and $43 billion in 1982. The volume of private purpose bonds issued in 1983 was estimated by the Treasury Department at $62 billion.

Treasury figures received through reporting requirements effective for 1983, and adjusted to include nonreported issues, show that the volume of private purpose issues—including refunding issues—was $62.4 billion in 1983, or 68% of total tax-exempt volume.[5] Because interest rates dropped to less than 10% at the beginning of 1983, there was a considerable amount of refunding to take advantage of the lower interest rates. Reports to Treasury show that $11.4 billion of the $50 billion long-term 1983 issues were refundings and $7.8 billion of the $9.0 billion short-term issues were refundings.[6] Examination of the purposes for which tax-exempt financing was issued provides necessary background for an analysis of the reasons for the unprecedented increase in the volume of these issues.

HOUSING BONDS

Housing bonds—both single-family and multifamily—have shown the sharpest growth of all of the bonds issued for nontraditional purposes, rising from $0.7 billion in 1970 to $15.8 billion in 1980 and $14.3 billion in 1982.[7] Treasury figures (adjusted to include those housing bonds reported to HUD) indicate that long-term housing bonds amounted to about $17 billion in 1983.

Until 1978, most housing bonds financed multifamily housing; most were issued by state housing agencies to finance multifamily rental housing.

In 1978, the practice of issuing mortgage subsidy bonds to provide low-cost mortgages for single family housing became widespread, and the volume of bonds issued for mortgages on single-family housing grew rapidly until Congress restricted their use by the *Mortgage Subsidy Bond Tax Act of 1980*. Uncertainty relating to Congressional restrictions held down issues in 1981, but by 1982 the volume of single-family housing bonds was close to that of 1980. The high volume reported to Treasury and HUD for 1983 was due to a rush to bring is-

sues to market in time to avoid a Congressional sunset of tax exemption for mortgage subsidy bonds after December 1983.

INDUSTRIAL DEVELOPMENT BONDS

Industrial development bonds are issued by a state, municipality or special authority to finance a facility for a private trade or business. The facility is then leased to the private company or the bond proceeds are lent directly to the business. There are two types of IDBs: (1) unrestricted (used to finance legislatively specified projects, such as sports stadia, convention centers, airport and dock facilities, and pollution control facilities); and (2) small issues (limited by federal law to $10 million in face amount in each jurisdiction).

Over the past 16 years, Congress has attempted to restrict the growing use of small issue IDBs; in the *Revenue and Expenditure Control Act of 1968*, it imposed a dollar limit on individual issues and, a few months later,[8] a limit on total capital expenditures. These limits were raised, effective January 1, 1979. At present, no state or locality may float a small-issue IDB for more than $10 million. If the bond amount exceeds $1 million, total capital expenditures on all of the borrowing firm's facilities within the same county or city may not exceed $10 million for the three years before and the three years after the issuance of the bond.[9]

Recent Congressional concern has been particularly directed at the growing use of small-issue IDBs for commercial—rather than industrial—enterprises. In TEFRA (*Tax Equity and Fiscal Responsibility Act of 1982*), Congress provided that issues would not qualify for tax exemptions if more than 25% of the proceeds went for automobile sales or service, recreation or entertainment, or food and beverage retail establishments. Use of proceeds for a wide range of recreational purposes—such as golf courses, country clubs, massage parlors, race tracks and hot tubs—was also prohibited. In addition, TEFRA provided that IDB issues must be approved by an elected legislative body or public official after notice and public hearing or by a voter referendum. Restrictions were placed on claims for accelerated depreciation deductions for assets financed by certain types of IDBs. Although there have been predictions that the TEFRA prohibition against using Accelerated Cost Recovery System (ACRS) in combination with IDB financing would have a significant impact in cutting back the volume of small-issue IDBs, a recent Congressional Research Service analysis indicates that straight-line depreciation will increase financing costs by less than 1% (when tax-exempt financing accounts for up to 50% of total financing).[10] TEFRA further provided that small-issue IDBs would cease to be tax exempt after December 31, 1986.

From a 1970 volume of about $100 million and rising to a 1982 volume of $12.7 billion, tax-exempt financing for businesses (small-issue IDBs) showed an even sharper increase than housing bonds. Until reports to Treasury were instituted in 1983, changes in the volume of industrial development bonds were difficult to assess because many small-issue IDBs were privately placed and not publicly reported. The Treasury Department reports indicate that long-term small-issue IDBs continued to increase, reaching $14 billion in 1983.[11]

POLLUTION CONTROL

For 1970, the volume of bonds issued for pollution control was too small to show in *Table 6–1*; by 1982, pollution control issues amounted to $5.3 billion. The water pollution control and clean air acts enacted between 1970 and 1981 made private industrial investment in pollution control mandatory; states and localities used tax-exempt financing to provide low-cost loans for pollution control, aided by the fact that pollution control bonds are not subject to IDB dollar limits. The Treasury figures for 1983 show long-term issues at $7.3 billion. However, a substantial proportion of these issues were refundings and new long-term issues amounted to $3.2 billion.

HOSPITALS

Tax-exempt bonds issued for hospital facilities were another category of nontraditional financing not appearing in the 1970 figures, but by 1980 hospital facilities bonds had risen to $3.6 billion and to $9.5 billion in 1982. These bonds are issued to assist in the financing of private facilities and not state or locally operated facilities. While the 1983 annual Treasury

figures do not break out hospital facilities bonds from other private exempt-entity bonds (501(c)(3) organizations), based on experience in the first half of 1983, they amounted to an estimated $9.3 billion, or about the same amount as the 1982 issues.

STUDENT LOANS

The last category of nontraditional purpose bonds shown in *Table 6–1* is student loans—a form of financing made attractive by the *Tax Reform Act of 1976* which allowed states and local governments to make profits from student loan bonds.[12] In 1982, $1.6 billion of long-term tax-exempt financing was done to provide for student loans. Treasury figures indicate that long-term student loan bonds amounted to $3.4 billion in 1983. Although news accounts[13] reported that 24 state agencies, regional authorities and nonprofit corporations were preparing to offer a large volume of issues—about $2 billion in student loan bonds and notes—in December 1983, very few of these issues came to market. Since the Department of Education issued new guidelines toward the end of the summer of 1983, under the August 1983, *Student Loan Consolidation and Technical Amendments Act*, the department has approved payment of the federal interest subsidy (the special allowance payment—SAP) for only seven issues, amounting to about $417 million. The Department of Education's actions resulted in a sharp reduction in the volume of issues in 1983.[14]

Causes of the Growth in Private Purpose Tax-Exempt Bonds

The foregoing examination of the major categories of private purpose or nontraditional bonds being issued provides insight into the reasons the volume of such bonds offered has increased so much between 1970 ($0.8 billion) and 1983 ($50 billion). Several major reasons are apparent:

1. States and localities have expanded their perception of their roles. They have used tax-exempt financing to assist their constituents in financing mortgages, student loans, private hospitals and private industry pollution control facilities.

2. Tax-exempt financing is being used by states and localities to assist private industry in financing federally mandated functions—particularly pollution control facilities.

3. States and localities have been using tax-exempt financing to make up for recent cuts in federal programs, such as cutbacks in the federal student loan program.

4. Tax-exempt financing has been used by states and localities to mitigate the adverse impact of national economic policies and developments upon individuals and businesses, particularly record-high interest rates which have shut out potential house buyers and small businesses attempting to find financing.

5. In addition, some states and localities have used tax-exempt revenue bond financing (which does not involve the full faith and credit of the issuing government) as a way of avoiding constitutional and statutory debt limitations and referendums requirements.

6. Small-issue industrial development bonds have been used as a tool in interstate and interjurisdictional competition for jobs and industry. Industrial development authorities and other related agencies have used tax-exempt financing as a way of encouraging industrial diversification. The role of tax-exempt financing in state-local industrial development policy is discussed more fully in the next section.

The Use of Tax-Exempt Financing for Economic Development

One of the most hotly debated subjects in the field of tax-exempt financing is the use of industrial development bonds as a tool of economic policy at the state and local levels. Proponents maintain that IDBs make a major contribution to expansion of investment and employment and that the net cost to the federal government is minimal because the resulting expansion of total economic activity increases federal revenues. Opponents hold that, rather

than expanding the industrial base, industrial development bond financing encourages switches of location, both intrastate and interstate. In the absence of significant expansion in total economic activity, they argue, the cost to the federal government is high and the economic inefficiencies of diverting scarce capital from the private sector are serious.

The use of IDBs by states and local governments is targeted toward several specific economic development objectives. They include:[15]

—the prevention of unemployment,

—the promotion of local industrial expansion,

—the provision of incentives to attract new industries,

—the provision of capital for small enterprises,

—the stimulation of aggregate investment in the community,

—assistance to enterprises unable to borrow at market interest rates,

—stimulation of development in distressed areas,

—broadening the tax base, and

—diversification of the industrial base.

Several recent studies have been done for state industrial development authorities on the contribution of IDBs toward these goals in their communities. For example, a study undertaken by Norman Ture for the New York State Economic Development Council[16] concluded that the use of tax-exempt financing for private capital projects has added significantly to total employment in New York State and for the most part has assisted small companies, rather than large companies. A study by the Massachusetts Industrial Finance Agency[17] concluded that its Industrial Revenue Bond program was instrumental in assisting Massachusetts firms—especially those with gross sales of less than $5 million—in obtaining financing during a period of high and volatile interest rates. The study projected its survey results to estimate that, by the end of 1981, about 32,000 jobs would be created through tax-exempt financing.

However, critics of the view that industrial development bonds are significant tools for economic development point out several problems:

1. Because the bonds are revenue bonds and must be financed from the earnings of the borrowing firm, IDB financing is generally available only to credit-worthy firms. These firms benefit from the lower costs of financing through tax-exempt bonds even though they probably would have been able to undertake the project without tax-exempt financing.

2. IDBs used to finance commercial projects may not create net job gains, but merely cancel out job losses in older, unsubsidized commercial businesses.

3. Because IDBs are generally available, their chief effect may be in redistributing jobs among communities and states, rather than in creating new jobs. In effect, IDBs are a national subsidy—offered at random and without a national economic plan—which diverts capital which might have been used more efficiently in the private sector.[18]

A well-balanced assessment of the contribution of tax-exempt bond financing to the state and to the nation appeared in a recent study of Michigan's fiscal and economic structure:[19]

> From a state policy perspective, IRB (industrial revenue bonds) programs in Michigan probably yield net positive benefits to state taxpayers on a collective basis. Some new jobs are created by firms that wouldn't have located in Michigan if the incentive weren't available. The industrial mix in the state, though not made less cyclical, has been made somewhat more diverse.
>
> As long as the IRB system exists as primarily a federally subsidized program, Michigan should take full advantage of it. The ability to offer tax-exempt financing to industrial firms is a competitive necessity these days since nearly all states offer locational incentives.

An assessment of IRB programs at the national level is quite different from that at the state level. From a national perspective, IRB programs really constitute a nationwide system of investment subsidies. Michigan taxpayers can join in asking the question, "What public purpose objectives are being served by federal subsidies for private industry?" It may be in the interest of all taxpayers to hold back on further IRB issues. From the viewpoint of the individual state participants, however, it is in the interest of the state to issue bonds, the cost of which is mostly paid by other states. The paradox is that all may lose when all pursue their self interest, yet each state has no assurances that its restraint will be matched by the restraint of other states.

Whether viewed from either the national or state level the broad subsidization of capital is inefficient in encouraging new employment and ineffectual in promoting economic stability. As the system now exists, use of the program has grown dramatically, but the firms that are likely to be attracted to it do not necessarily create permanent, steady employment opportunities. Since Michigan taxpayers share in financing the national program, they may want to encourage continued assessment at the national level. At the same time the Michigan legislature should consider tightening the focus of Michigan programs towards the objectives of more jobs and more diversity in the industrial base. The legislature should consider removing the IRB eligibility for commercial developments that serve local areas.

By limiting IRB financing to firms for which site location is discretionary, the resources of the IRB programs are more likely to achieve permanent employment gains. As for building a more diverse industrial base, there may be no reasonable way that state policy can use fiscal incentives to attract specific industries. Perhaps the best approach is to provide an overall attractive business climate and expect that a broad mix of industry will evolve naturally.

The Issuers

Since 1970, there has been a significant change in the proportions of long-term bonds issued by various levels of government. Federal Reserve flows-of-funds data break down the gross long-term offerings of tax-exempt bonds by level of government *(Table 6–3)*. The data show that statutory authorities—entities established by state or local government law which have the authority to issue tax-exempt obligations, for example, state housing finance authorities, or port authorities—expanded their use of tax-exempt bonds from $1.3 billion in 1960 to $47.2 billion in 1983. Counties showed the next largest increase—from $0.5 billion in 1960 to $8.5 billion in 1983. School districts showed the smallest increase—from $1.5 billion in 1960 to $2.5 billion in 1983.

This uneven rate of increase in the volume of bonds resulted in a marked change in the principal issuers of long-term tax-exempt bonds (*Table* 6–3, Part 2). Statutory authorities, which issued 18% of the bonds in 1960, issued 55% in 1983. Counties increased their share from 7% in 1960 to 10% in 1983.

All other government levels decreased their share of long-term tax-exempt bonds offered. The most striking decrease came for school districts as baby boom pressure slackened: The school districts' share dropped from 20% in 1960 to 12% in 1970 and 3% in 1983. States, which accounted for 15% of the total volume in 1960 and 23% in 1970, issued only 8% in 1983. Municipalities also decreased their share, dropping from 30% in 1970 to 19% in 1982.

The growing dominance of statutory authorities as issuers of tax-exempt bonds is caused by several factors. One is the use of these entities by states and local governments to avoid constitutional and statutory debt limitations. Another is the large number of industrial development authorities empowered to issue tax-exempt bonds. Because the issuance of these bonds does not usually involve any direct cost to the taxpayers or to the jurisdiction establishing the industrial development author-

Table 6–3

STATE-LOCAL GROSS LONG-TERM OFFERING OF TAX-EXEMPT BONDS

Year	Total	States	Counties	Munici-palities[1]	School Districts	Special Districts	Statutory Authorities
				Part 1 (in billions of dollars)			
1960	$ 7.3	$1.1	$ .5	$ 2.2	$1.5	$ .7	$ 1.3
1965	11.3	2.4	.7	2.6	1.8	1.0	2.8
1970	18.2	4.2	1.7	4.6	2.1	1.2	4.4
1975	30.5	7.4	2.6	5.6	2.4	1.6	10.9
1980	48.4	5.3	4.9	9.0	2.2	1.2	25.7
1981	47.7	5.3	5.0	8.2	1.7	1.8	25.7
1982	78.9	8.4	9.0	13.9	2.6	3.0	42.0
1983 preliminary	85.1	7.1	8.5	16.3	2.5	3.5	47.2
				Part 2 (as a percent of total offerings)			
1960	100%	15%	7%	30%	20%	9%	18%
1965	100	21	6	23	16	9	25
1970	100	23	9	25	12	6	24
1975	100	24	9	18	8	5	36
1980	100	11	10	19	5	3	53
1981	100	11	10	17	4	4	54
1982	100	11	11	17	3	4	53
1983 preliminary	100	8	10	19	3	4	55

[1]Includes townships for 1960, 1965, 1970.
Source: Unpublished data from the Federal Reserve Board and ACIR calculations.

ity, the jurisdiction has little incentive to restrict its issuances. However, such practices raise the question of the extent to which the statutory authorities are accountable to the citizens of the general government. In response to this concern, TEFRA provided that, after January 1, 1983, all IDB issues must be approved by an elected legislative body or public official after notice and public hearing, or by a voter referendum.

There is a wide variation in the extent to which issuers in each state have made use of tax-exempt financing. As the result of the TEFRA requirement that issuances for private businesses and student loans be reported to the Treasury Department, volume figures for these types of bonds became available for the first time in 1983. *Table 6–4* shows the dollar volume of reported private purpose bonds issued by each state in 1983. California and Texas issued the largest amounts ($3.6 and $3.5 billion respectively), followed by Florida with $2.4 billion and Pennsylvania and New York with $2.3 billion each. Maine issued the smallest volume ($44 million), followed by Idaho ($73 million) and Hawaii ($77 million).

Table 6–5 shows per capita figures for each state for 1983 for those types of private purpose bonds which would be placed under the $150 per-capita ceiling proposed during the spring of 1984 in the House Ways and Means Committee tax bill, HR 4170. The per capita figures for 1983 show the total range from a low of $23 for Oregon to a high of $446 for Alaska and a state average of $113. Small-issue and industrial park IDBs accounted for $59 of this amount, with pollution control IDBs ($16) and student loan bonds ($15) following far behind. Other states with high total amounts were Arizona ($429), Wyoming ($424), and South Dakota ($315). States with per capita issuances under $50 were Oregon ($23), North Carolina ($34), Maine ($36), Washington ($41), Idaho ($43), and Connecticut ($47). Most of these states

Table 6–4

TOTAL NEW ISSUE VOLUME[a] OF REPORTED PRIVATE PURPOSE TAX-EXEMPT BONDS ISSUED DURING 1983, BY STATE

(in millions of dollars)

State	Student Loan Bonds	Exempt-Entity Bonds[b]	Multi-family Housing IDBs	Sports and Conven. IDBs	Airport and Dock IDBs[c]	Sewage Disposal IDBs	Pollution Control IDBs	Electric and Gas IDBs	Other Exempt Activity IDBs	Small-Issue and Industrial Park IDBs	Total
Alabama	$ 75	$ 102	$ 82	$ 0	$ 1	$ 1	$ 34	$ 0	$ 0	$ 256	$ 550
Alaska	0	2	38	0	28	9	18	0	0	159	254
Arizona	204	102	172	1	9	204	264	305	0	285	1,547
Arkansas	0	31	18	0	0	1	26	0	0	142	218
California	499	1,210	793	108	166	122	75	297	27	357	3,654
Colorado	133	146	72	40	19	7	42	0	3	212	674
Connecticut	16	77	82	0	13	0	0	0	6	114	308
Delaware	0	130	20	0	0	2	12	6	0	76	246
Florida	0	572	353	62	395	220	241	0	10	508	2,361
Georgia	0	91	305	0	40	1	24	0	85	513	1,059
Hawaii	0	20	0	0	57	0	0	0	0	0	77
Idaho	17	27	4	0	0	0	13	0	4	8	73
Illinois	200	353	99	5	311	126	24	0	0	624	1,743
Indiana	82	384	43	12	6	46	145	0	0	379	1,097
Iowa	60	28	13	0	0	0	4	0	0	201	307
Kansas	0	11	45	0	22	0	225	0	0	185	488
Kentucky	321	144	15	0	27	6	112	0	0	175	800
Louisiana	0	124	188	0	151	1	174	0	24	389	1,051
Maine	6	4	0	0	0	0	0	0	0	35	44
Maryland	0	47	290	0	101	236	10	0	0	320	1,004
Massachusetts	132	698	55	5	0	167	136	0	0	354	1,548
Michigan	25	219	96	0	0	11	151	0	0	269	772
Minnesota	168	203	128	65	1	0	109	0	0	539	1,213
Mississippi	20	9	8	0	0	8	82	0	0	110	237
Missouri	0	258	160	8	58	0	36	0	0	574	1,093
Montana	34	5	16	0	0	0	76	0	0	91	222
Nebraska	0	13	9	0	0	0	6	0	0	101	129
Nevada	0	4	8	0	16	0	96	72	0	26	222
New Hampshire	42	35	0	33	0	0	75	0	0	64	249
New Jersey	0	334	48	1	67	4	102	10	10	807	1,383
New Mexico	42	77	11	0	0	0	22	0	0	102	254
New York	0	450	368	6	116	58	308	370	19	569	2,264
North Carolina	0	67	44	0	6	0	23	0	0	176	318
North Dakota	0	41	1	0	0	5	21	0	0	51	118
Ohio	198	330	7	7	20	3	140	0	3	627	1,336
Oklahoma	0	31	171	0	29	0	49	0	0	92	373
Oregon	0	60	0	0	6	0	0	0	18	37	121
Pennsylvania	201	648	21	26	41	18	125	0	0	1,190	2,269
Rhode Island	0	26	13	0	0	0	0	0	0	67	105
South Carolina	50	17	4	2	0	40	184	0	0	186	484
South Dakota	118	26	10	45	0	9	9	0	17	23	257
Tennessee	0	104	70	0	0	13	17	0	0	623	829
Texas	352	611	1,124	0	329	35	230	0	2	777	3,459
Utah	50	109	40	0	25	2	118	0	0	158	502
Vermont	75	8	8	0	0	2	0	0	0	13	106
Virginia	299	160	166	18	1	33	51	0	2	687	1,416
Washington	0	47	0	0	88	0	2	0	20	68	225
West Virginia	0	23	28	2	0	2	23	0	0	128	205
Wisconsin	46	11	7	0	0	2	2	0	0	232	299
Wyoming	0	0	3	0	0	0	196	0	0	22	222
Total	$3,464	$8,231	$5,253	$447	$2,147	$1,393	$3,834	$1,060	$250	$13,705	$39,784

Note: Preliminary data compiled from Treasury Form 8038. Detail may not add to total due to rounding.

[a]New issue volume equals the purchase price of the bonds minus any amount used to refund earlier obligations. May include some refunding proceeds of student loan bonds.

[b]Private exempt-entity bonds include bonds issued for IRC Section 501(c)(3) organizations, principally private nonprofit hospitals and educational facilities.

[c]Includes wharves, mass commuting facilities, parking facilities, or storage facilities directly related to any of the preceding.

[d]Other exempt activity IDBs include bonds issued for facilities for furnishing water and hydroelectricity, local district heating and cooling facilities, and mass commuting vehicles.

Source: U.S. Treasury Department, Office of the Secretary, Office of Tax Analysis, March 26, 1984.

Table 6-5

PER CAPITA NEW ISSUE [a] VOLUME OF TAX-EXEMPT STUDENT LOAN BONDS AND INDUSTRIAL DEVELOPMENT BONDS [b] ISSUED DURING 1983, BY STATE

Total Volume per Capita	State	Student Loan Bonds	Sewage Disposal IDBs	Pollution Control IDBs	Electic and Gas IDBs	Small-issue and Industrial Park IDBs	Other Exempt Activity IDBs [d]	Subtotal [e]	Convention and Transportation IDBs [f]
		New Issue Volume[a] Per Capita[c]							
$ 92	Alabama	$ 19	$ 0	$ 8	$ 0	$ 65	$ 0	$ 92	$ 0
447	Alaska	0	19	37	0	331	0	388	58
429	Arizona	69	69	89	103	96	0	426	3
73	Arkansas	0	0	11	0	61	0	73	0
63	California	20	5	3	12	14	1	55	8
141	Colorado	42	2	13	0	68	1	127	14
47	Connecticut	5	0	0	0	36	2	43	4
159	Delaware	0	3	21	10	125	0	159	0
129	Florida	0	21	23	0	48	1	92	37
116	Georgia	0	0	4	0	89	15	109	7
56	Hawaii	0	0	0	0	0	0	0	56
43	Idaho	17	0	13	0	8	4	43	0
112	Illinois	17	11	2	0	54	0	85	28
122	Indiana	15	8	27	0	69	0	119	3
91	Iowa	21	0	1	0	69	0	91	0
178	Kansas	0	0	93	0	76	0	169	9
173	Kentucky	86	2	30	0	47	0	166	7
166	Louisiana	0	0	39	0	88	5	132	34
36	Maine	5	0	0	0	30	0	36	0
155	Maryland	0	55	2	0	74	0	132	23
138	Massachusetts	23	29	24	0	61	0	137	1
50	Michigan	3	1	17	0	30	0	50	0
211	Minnesota	41	0	26	0	130	0	197	14
85	Mississippi	8	3	32	0	43	0	85	0
134	Missouri	0	0	7	0	115	0	123	12
245	Montana	41	0	93	0	111	0	245	0
67	Nebraska	0	0	4	0	63	0	67	0
236	Nevada	0	0	108	80	30	0	218	18
189	New Hampshire	44	0	78	0	67	0	189	0
134	New Jersey	0	1	14	1	108	1	125	9
118	New Mexico	30	0	15	0	73	0	118	0
82	New York	0	3	17	21	32	1	75	7
34	North Carolina	0	0	4	0	29	0	33	1
112	North Dakota	0	7	31	0	75	0	112	0
93	Ohio	18	0	13	0	58	0	90	3
52	Oklahoma	0	0	15	0	28	0	43	9
23	Oregon	0	0	0	0	14	7	21	2
134	Pennsylvania	17	2	10	0	100	0	129	5
70	Rhode Island	0	0	0	0	70	0	70	0
141	South Carolina	15	12	56	0	57	0	141	0
315	South Dakota	169	13	13	0	32	24	251	64
140	Tennessee	0	3	4	0	133	0	140	0
110	Texas	22	2	15	0	49	0	89	21
218	Utah	31	1	73	0	97	0	203	15
172	Vermont	143	4	0	0	25	0	172	0
197	Virginia	54	6	9	0	124	0	193	3
41	Washington	0	0	1	0	16	5	21	20
78	West Virginia	0	1	12	0	65	0	78	0
59	Wisconsin	10	0	0	0	49	0	59	0
424	Wyoming	0	0	381	0	44	0	424	0
$113	Total	$ 15	$ 6	$ 16	$ 5	$ 59	$ 2	$103	$10

Note: Preliminary data compiled from Treasury Form 8038. Detail may not add to total due to rounding.

[a]New issue volume equals the purchase price of bonds issued minus proceeds used to refund earlier issues. May include some refunding proceeds of student loan bonds.

[b]Does not include multifamily rental housing IDBs.

[c]Based on Census estimates of resident population of states for July 1, 1983, U.S. Department of Commerce, Bureau of the Census, *Current Population Reports: Population Estimates and Projections* Series P-25, No. 944, January 1984.

[d]Other exempt activity IDBs include bonds issued for sports facilities, facilities for furnishing water and hydroelectricity, local district heating and cooling facilities, and mass commuting vehicles.

[e]Subtotal excludes multifamily rental housing IDBs and convention and transportation IDBs. The latter are excluded from the volume limitation in HR 4170 as amended if no tax depreciation is taken on the facilities. The data from Form 8038 do not identify for which IDB-financed property depreciation is taken.

[f]Includes airports, docks, wharves, mass commuting facilities, parking facilities, or storage or training facilities directly related to any of the preceding.

Source: U.S. Treasury Department, Office of the Secretary, Office of Tax Analysis, March 26, 1984.

concentrated their issuances in small-issue IDBs.

An instructive example of the way in which the use of new types of tax-exempt financing grows can be seen in the student loan figures. During the first half of 1983, student loan bonds were issued in only 14 states, but in three of those states student loan bonds accounted for 50% or more of the total per capita volume.[20] The average per capita amount was $7. Both Kentucky (with $87 per capita) and Arizona ($75) issued far above average amounts, and in only three of the 14 states (California, Illinois, and Indiana) did issuances amount to less than $5 per capita. By the end of 1983 (*Table 6–5*) 27 states had outstanding student loan bonds and the average per capita amount was $15. Per capita amounts outstanding ranged as high as South Dakota's $169 and Vermont's $143.

OVERVIEW OF CHANGES IN THE MARKET FOR TAX-EXEMPT BONDS

States and localities issuing tax-exempt bonds now are confronted with a tax-exempt market radically different from the market of 20 years ago. Although the greatly increased volume of tax-exempt issuances, discussed in the previous section, is the most immediately apparent indication of change, there are several other significant changes both in the supply of bonds and in the demand for them. The end result has been an increase in tax-exempt interest rates, which—in turn—results in higher costs for state and local governments using tax-exempt bonds, an equally impressive increase in the cost to the federal government of exempting municipal bonds from federal taxation, and growing pressures in Congress for federal regulation of the private purpose tax-exempt market.

Changes in the Supply of Tax-Exempt Bonds[21]

The previous section discussed the growth in the volume of issuances of long-term bonds, which increased from $18 billion in 1970 to $87.5 billion in 1982, and an estimated $91.8 billion in 1983.[22] As the volume of issuances increased, so did the proportion of revenue bonds: In 1970, 66% of new issues were general obligations (backed by the full faith and credit—and taxing powers—of the issuing government) and 35% were revenue bonds. (Revenue bonds are limited obligations with no claim on the issuers' tax revenues; repayment is made from the revenues generated by the specific project financed by the bonds issued.) In 1982, only 27% of issuances were general obligations and 73% were revenue bonds.[23] The increase in the proportion of revenue bonds issued is closely related to the sharp increase in private-purpose bonds (*Table 6–1*) and to the growing dominance of statutory authorities as issuers of tax-exempt bonds, where these authorities more than doubled their share of long-term offerings—from 24% in 1970 to an estimated 55% in 1983 (*Table 6–3*).

All of these changes contributed to increases in average tax-exempt interest rates, as the relative proportion of traditional-purpose general obligations backed by the full faith and credit of a general purpose government declined and the vast majority of tax-exempt issuances became private purpose bonds with limited backing.

Changes in the Demand for Tax-Exempt Bonds

Changes in the demand for tax-exempt bonds also occurred during the period between 1970 and 1982. In the past, commercial banks have been large holders of tax-exempt securities: In 1970, they held 48.6% of the outstanding municipal bonds. The incentives for commercial banks to hold tax-exempt bonds declined as low bank profits reduced their need for tax-free income and as more attractive alternative investments became available. By 1982, commercial banks held only 34.2% of the outstanding bonds. Commercial banks had purchased $10.7 billion in new issues in 1970; in 1982, they purchased only $4.6 billion.[24]

During the same period, households sharply increased their holdings of outstanding bonds—from slightly below 30% in the early 1970s to almost 36% in 1982. Households and mutual bond funds (which are indirect purchases by households) accounted for 87% of net purchases of new bonds in 1982.[25] Several factors account for the increased holdings by

households: (1) the increased value of tax-exempt interest to persons liable for individual income taxes as bracket creep pushes them into higher tax brackets; (2) the attractiveness of high tax-exempt interest rates; and (3) the growth of mutual bond funds and unit bond trusts as an easy way for individuals to purchase and hold municipal bonds.

The attractiveness of tax-exempt bonds to households may decline. Marginal federal income tax rates have been cut, tax indexation will become effective after December 1984, and competing tax shelters—such as Individual Retirement Accounts—have been expanded by federal legislation. In addition, the new social security amendments provide that income from interest on tax-exempt bonds cannot be excluded from income for purposes of computing taxes on Social Security payments to higher-income recipients. All of these developments can be expected to force issuers to offer higher tax-exempt interest rates if they expect to sell their bonds.

The Increase in Tax-Exempt Interest Rates

In recent years, all interest rates have been pushed up by inflation, international economic developments, and fiscal and monetary anti-inflation policy. The developments discussed above in the supply of tax-exempt bonds combined to push up tax-exempt interest rates even more sharply than the increase in taxable interest rates. In the period between the mid-60s and 1980, the tax-exempt yield averaged about 70% of the taxable yield: In 1982, it was 78.5%.[26] One of the significant causes is the result of the combination of the greatly increased supply of tax-exempt bonds and the increase in the proportion of new issues purchased by individuals: As the volume of tax-exempt offerings increase, the interest rate must be increased in order to induce individual investors in lower tax brackets to purchase the bonds.

Estimates of the magnitude of this interest rate effect vary widely, with an additional $1 billion of tax-exempts estimated to increase overall tax-exempt rates relative to taxable rates by as little as 0.6 of a basis point[27] to as much as seven basis points[28]—a difference in magnitude of nearly 12–to–1. (A basis point is equal to 1/100 of 1%.) For example, if one uses the lowest estimate of the interest rate effect (0.6 basis point), an extension of tax-exemption for mortgage subsidy bonds for *one year* would increase total interest payments on public purpose bonds issued in that year by at least $450 million.[29]

These increases in interest costs have alarmed state and local officials responsible for financing their jurisdiction's capital needs by borrowing. A letter to members of the New York Congressional delegation from New York State Comptroller Edward V. Regan pointed out some of the consequences:

> ... the overall consequence of the proliferation in tax-exempt, private purpose bonds has been an increase in the interest rates on all borrowing by state and local governments. Studies by the Urban Institute and Municipal Finance Officers Association estimate that every billion dollars in additional tax-exempt debt drives up all tax-exempt interest rates from three to seven basis points. Using the most conservative estimate of three basis points, $44 billion in private purpose, tax-exempt debt issued in 1982 raised overall tax-exempt interest rates by a premium of 1.2%.
>
> What does all this mean in dollar terms for New York State? Assuming a 9% rate of interest for the recently passed $1.25 billion infrastructure bond issue, a 1.2% premium will account for $244 million of the $1.46 billion New Yorkers will pay in interest over the 25-year life of the bonds.
>
> In other words, for the next quarter-century, the taxpayers of New York State will pay almost $10 million each year in extra interest on this bond issue alone—a premium attributable to the excessive growth of tax-exempt private purpose bonds.
>
> At the state's last general obligation bond sale on February 22, 1984, we sold $100 million in bonds at a net interest rate of 8.8333%. The interest cost will be $112.6 million. My office estimates that the 1.2% premium included in that amount will cost New York State taxpayers an additional $19

million over the term of the bonds.

I've only mentioned two borrowings. All levels of government in New York—state, city, local and public authorities—borrow an estimated $5.4 billion each year. The application of the 1.2% premium to the varying interest charges on that borrowing could yield an astonishing figure.[30]

As increased interest rate levels (both real and nominal) have sharply increased the cost of borrowing, states and localities have been forced to postpone or cancel some planned projects. On a typical long-term bond, the total cost of debt service now significantly exceeds the amount being borrowed. Focusing on the nation as a whole, in 1978, municipal bond issuers issued $46 billion in long-term bonds at an estimated average interest rate of 5.5%; in 1981, they issued the same amount at 10.6%. For long-term bonds issued in 1981, they paid approximately $2.3 billion more in annual interest costs than they would have paid at 1978 interest rates; and over the 18-year average estimated life of the issues,[31] they will pay a cumulative additional interest cost of $41 billion—over 80% of the total 1981 U.S. capital investment in structures and equipment ($50.2 billion).[32]

Estimates of the volume of delayed and cancelled bond sales illustrate the damage high-interest costs do to state and local financing of their traditional investments in infrastructure. In 1980 and 1981, delayed and cancelled bond sales ranged between $7 and $8 billion compared to completed sales of about $48 billion. In 1982—when interest rates began to recede somewhat from their previous high levels—delays and cancellations dropped to $4 billion against sales of $77 billion. Studies (1970[33] and 1982[34]) indicate that high-interest rates force postponement and cancellation of borrowing. Recent GAO studies of the years between 1974 and 1982 indicate that the rise and fall of delays and cancellations parallel the rise and fall of interest rates.[35] In addition, uncertainty caused by the increased volatility of interest rates has undoubtedly created problems for issuers and has also contributed to cancellations and postponements.

The Impact on the Federal Government

Treasury and other federal officials point out that the costs of municipal bond tax exemption reduces federal revenue collections: As the volume of municipal bonds and the rates of interest have increased, so has tax-exempt income, thus keeping federal receipts below what they otherwise would have been. The Joint Committee on Taxation estimates that for fiscal 1983 excluding interest on all state and local bonds from taxable income "cost" the federal treasury over $18.5 billion in lower receipts.[36] Private purpose bonds accounted for about $8 billion.[37]

The Efficiency of Tax-Exempt Financing

There is widespread disagreement concerning the efficacy and desirability of tax-exempt financing in general. Criticism has been leveled at the inefficiency of this kind of device and at how using tax-exempt financing for nontraditional purposes drives up interest rates. The benefits created by exempting state-local bond interest from income taxes go not only to the governments doing the borrowing; they also go to the private businesses and upper-bracket taxpayers who buy the bonds. To float the large volume of bonds now entering the market, the interest rates must rise to attract additional investors. As tax-exempt interest rates increase, many investors will find the tax-exempt rate higher than their after-tax return on taxable securities. Thus, some of the revenue loss is accruing to high-tax-bracket investors, rather than to projects financed by tax-exempt bonds.

The Congressional Budget Office estimates that only 25% to 50% of the federal revenue loss actually subsidizes intended beneficiaries (such as private businesses or home buyers).[38] The remaining proceeds go for administration (underwriting, insurance, processing, fees)[39] and to the bond holders who receive higher yields than are necessary for them to be willing to hold the bonds.

When localities issue tax-exempt bonds to finance private business development (IRBs), the issuing government is using its tax-exempt status to lower the borrowing costs confronting private businesses. Critics of private purpose

tax-exempt bonds consider this an inefficient allocation of resources because, through its tax losses, the federal government is subsidizing economic development chosen by states and localities without regard to national policies relating to economic development and the allocation of capital. Tax-exempt bonds may encourage projects which serve little or no public purposes; small issue IDBs encourage small projects at the expense of larger ones, regardless of economic efficiency; tax-exempt financing favors businesses of persons eligible to receive it, at the expense of ineligible businesses or persons.[40]

Proponents of private purpose bonds stress their contribution to local economic development, to diversification of local industry, and to their ability to provide government assistance (both federal and local) without the "strings" characteristic of grant programs. They point out that the use of tax-exempt bonds provides state and local governments with an important tool for economic development that is especially important during this period when federal grants for economic development have been cut back.

Increased Federal Intervention in the Municipal Bond Market

Largely because of the impact on federal revenues, but also because of questions of equity and efficiency, the national government has taken an increasingly active role in recent years in regulating and restricting aspects of the market for private purpose municipal bonds. Congressional actions affecting this market have included: 1968 legislation limiting tax-exemption to specific types of industrial development bonds; 1980 legislation setting limits on the volume and uses of mortgage subsidy bonds and requiring that they be issued in registered form; the 1982 requirement that all tax-exempt bonds be registered beginning in 1983, and the 1982 reporting requirements for issuers of certain private purpose tax-exempt bonds, effective in 1983; and further limitations enacted in TEFRA (1982) on purposes for which small issue IDBs may be issued and limitations on depreciation provisions for projects financed with certain IDBs. There are sunset provisions terminating federal tax-exemption for mortgage subsidy bonds (December 31, 1983) and small issue IDBs (December 31, 1986). (All of the legislative action enumerated above relates to restriction of private purpose tax-exempt bonds.) During 1983 and the beginning of the Congressional session of 1984, the Administration endorsed and Congressional committees considered an array of proposals limiting private purpose bonds. Another legislative action taken in the recent social security amendments can be viewed as a serious breach in the general intergovernmental system of tax exemption. When Congress provided that higher-income recipients of Social Security benefits would be taxed on half of their Social Security income, it moved to prevent taxpayers from reducing their total income (for this computation) by requiring the inclusion of tax-exempt income in total income. Because this legislation makes no distinction between public purpose and private purpose tax-exempt bonds or between general obligations and revenue bonds, it has caused grave concern among state and local officials that the fundamental tax-exemption privilege is seriously threatened.

SUMMARY AND MAJOR FINDINGS

The controversy between the federal government and state-local governments concerning tax exemption of interest on municipal securities, its impact on the financing needs of states and local governments and its impact on federal revenues poses one of the most vexing issues in intergovernmental relations facing us today. State and local governments have long held that this tax exemption is inextricably intertwined with their sovereignty—that interference with that privilege unconstitutionally restricts their freedom to manage their own affairs. The national government points to its large revenue losses generated by the increasing volume of tax-exempt bonds, to the size of the federal deficit, and to the inefficiency of the subsidy. The issue raises a series of unresolved constitutional and legal questions, and involves balancing divergent national, state and local interests.

The Key Questions

The controversy presents two basic questions in intergovernmental relations:

1. Should the traditional tax exemption enjoyed by state and local governments apply to bonds financing private purpose activities such as industrial development bonds, student loans, pollution control bonds and mortgage revenue bonds?
2. Is the contribution private purpose tax-exempt bonds make to economic development in the jurisdictions issuing them worth the costs they impose on state and local governments through higher interest rates, on the national government through lost revenues, and on the economy as a whole by diverting funds which otherwise might be invested privately?

Both of these questions concern intergovernmental relations: Which level or levels of government should determine whether there is a problem? How can the competing values be balanced? Who should be responsible for remedial action if any is necessary? Who should be responsible for deciding which private projects merit the federal assistance implicit in the tax exemption of interest on private purpose state-local bonds?

The recommendations many public interest groups make recognize the need to restrict the abuses created by some private purpose issuances. In addition, public interest groups have acknowledged the problems that result from the large volume of tax-exempt issuances for private purposes. However, there is no agreement on how to halt what is generally considered to be a growing problem and a threat to traditional tax-exempt financing without endangering cherished rights of state and local governments.

Wayne F. Anderson, former city manager, former executive director of ACIR, and former Secretary of Administration and Finance for the State of Virginia, has had experience at all three levels of government. He wrote:

> What should a local government consider in deciding whether to borrow for such private purposes [as housing, private hospitals, pollution control and small-issue IDBs]? Is it unrealistic or otherwise unwarranted to ask that a local government consider anything beyond whether higher levels of government permit the borrowing and whether the bond issue is economically feasible and can be sold? Presumably a local government can also be expected to reach its own conclusion on the soundness of the issue, giving due weight to the lessons of economic history, so as to protect against this debt overhang harming the community's credit. (Unfortunately, the extent to which a community will be held accountable for a revenue bond default is never clear and precise.)
>
> Can a local government be expected to go further and to develop a policy position on whether a private purpose deserves public financing? Should local governments be expected to display concern about competition with private lending institutions or about drains on the U.S. Treasury? Should a local government be willing to finance private projects only where it is convinced that private financing is not available at a rate the private party can pay? If a local government declines to borrow for private purposes that other local governments will accommodate, will its community decline?
>
> These questions are difficult to evaluate, but they are in my opinion an important and growing part of this subject. I am afraid that I will ultimately have to accept that the federal and state levels, mostly the federal because it suffers the revenue loss, must bear the responsibility for limiting borrowing purposes, and that it is unrealistic to expect a local government to forego borrowing if it is permitted and will benefit the community or someone in it.[41]

Major Findings

Since 1963, the volume of new issues of private purpose tax-exempt bonds has soared from less than $100 million to $43 billion in 1982, and about $62 billion in 1983. In each year since 1979 the dollar volume of new long-term private purpose issues has exceeded the

volume of bonds issued to finance traditional government functions, such as education, transportation and water and sewer facilities.

The conflict between the popularity of private purpose tax-exempt financing at the state-local level and the consequent steady increases in federal tax losses has created one of the most troublesome problems in current intergovernmental fiscal relations. For fiscal 1983, the cost to the federal government of the interest exclusion on private purpose tax-exempt bonds has been estimated at about $8 billion. If the volume of new issues continues to rise, losses will be even greater in the future. With the prospect of huge federal deficits in the foreseeable future, it is difficult to justify the continuation of such a costly subsidy.

The large volume of private purpose bonds has other adverse effects in addition to the cost to the federal government. It pushes up the interest rates for all tax-exempt bonds, increasing the costs to state and local governments of financing traditional government functions. In addition, the combination of the high volume of federal issuances which will be necessary to finance the deficit, and the continued high volume of state-local tax-exempt financing puts pressures on all capital markets, and poses the risk of pushing up all interest rates and squeezing out private credit.

There is every incentive for states and local governments to expand their issuances of private purpose tax-exempt bonds. Only the federal government has an interest in limiting their use. Because the tax exemption of private purpose bonds is a federally subsidized program, states are under great pressure to take advantage of it to maintain their position in interstate competition for industry.

When viewed strictly from a state economic development standpoint, there are persuasive arguments for using private purpose industrial development bonds; when viewed from a national standpoint, it takes on the appearance of a zero-sum game. As noted in the quotation from the Michigan economic study (p.00), there are strong reasons for individual states to use tax-exempt financing as a tool both to attract and hold business investment. However, when viewed from a national perspective, it is likely to be self-defeating because the present use of tax-exempt financing by all states tends to encourage locational switches rather than add to total national economic growth.

FOOTNOTES

[1]McCulloch v. Maryland (1819) established that states could not tax federal obligations; Pollock v. Farmers' Loan and Trust Company (1895) applied the converse immunity to obligations of states. See Public Securities Association, *Fundamentals of Municipal Bonds*, Revised 1982, pp. 155–61.

[2]1983 estimate from U.S. Treasury, Office of Tax Analysis, *Treasury Report on Private Purpose Tax-Exempt Bond Activity During Calendar Year 1983*, March 28, 1984, p. 2. The estimate for 1983 is not exactly comparable with the figures shown in *Table 1*, but shows the continued upward trend.

[3]*The Weekly Bond Buyer*, December 27, 1983, p. 4.

[4]Volume for the first half of 1983 was about $21.9 billion. U.S. General Accounting Office, *An Update of Trends in the Municipal Bond Market*, [undated, processed], p. 1.

[5]U.S. Treasury, *op. cit.*, Table 1.

[6]*Ibid.*, Table 3.

[7]The figure of $5.6 billion for 1981 reflects the impact of a poor housing market, high interest rates, and the hiatus in issues resulting from Congressional legislation regulating mortgage revenue bonds in 1980; volume of $14.3 billion in 1982 was pushed up by the postponed issues.

[8]In the *Renegotiation Act of 1968*.

[9]For a project financed under a UDAG grant, the capital expenditure limit is $20 million, but the IDB is still limited to $10 million.

[10]Zimmerman, Dennis, *Limiting the Growth of Tax-Exempt Industrial Development Bonds: An Economic Evaluation*, Congressional Research Service, April 10, 1984, pp. 27–31.

[11]The amount of small-issue IDBs taken to the market in 1982 and 1983 has been influenced by congressional actions: in the last quarter of 1982, a large volume of small-issue IDBs was brought to market early to avoid TEFRA registration requirements and restrictions effective in 1983. In the last quarter of 1983, the volume of new issues ($7.7 billion) far exceeded the total volume of the previous three quarters ($5.8 billion), as issuers rushed to avoid potential Congressional restrictions that were proposed to take effect in 1984.

[12]See Congressional Budget Office, *State Profits on Tax-Exempt Student Loan Bonds: Analyses and Options*, March 1980, p. x.

[13]*The Weekly Bond Buyer*, December 12, 1983, p. 6.

[14]For a further discussion of student loan bonds, see Neubig, Tom, "The Needless Furor Over Student Loan Bonds," *Tax Notes*, April 2, 1984, pp. 93–96.

[15]Unpublished study by the Michigan State Office of Revenue and Tax Analysis, October 14, 1981.

[16]Ture, Norman B., *Industrial Revenue Bonds: Estimates of Employment Effects and Size of Benefitting*

Companies, Washington, DC, September 8, 1983.

[17]Massachusetts Industrial Finance Agency, *Economic Growth and Industrial Revenue Bonds*, October, 1981.

[18]See also, Zimmerman, Dennis, *Ibid*.

[19]Thomas, Ann, "Industrial Revenue Bonds" in *Michigan's Fiscal and Economic Structure*, Harvey E. Brazer, Ed., Ann Arbor, MI, University of Michigan Press, 1982.

[20]U.S. Treasury, Office of Tax Analysis, *Ibid*., Table 4.

[21]This section on the tax-exempt market is based on U.S. General Accounting Office, *Trends and Changes in the Municipal Bond Market as They Relate to Financing State and Local Public Infrastructure*, GAO/PAD–83–46, September 12, 1983; U.S. General Accounting Office, *An Update of Trends in the Municipal Bond Market* [undated, processed], and Congressional Budget Office, *Small Issue Industrial Revenue Bonds*, CBO, 1981, and *Small Issue Industrial Revenue Bonds, 1980–1982, Report for the Subcommittee on Oversight, Committee on Ways and Means*, U.S. House of Representatives, May 1983, CBO, 1983.

[22]Estimate for 1983 from U.S. Treasury, Office of Tax Analysis, *Ibid*., March 28, 1984.

[23]GAO, *Ibid*., p. 50.

[24]See GAO, *Ibid*., pp. 21–22 for more detailed discussion.

[25]*Ibid*., pp. 52–53.

[26]*Ibid*., p. 39.

[27]Roger C. Kormendi and Thomas T. Nagle, "The Interest Rate and Tax Effects of Mortgage Revenue Bonds" in George G. Kaufman, ed., *Efficiency in the Municipal Bond Market: The Use of Tax Exempt Financing for "Private" Purposes*, Jai Press, Inc., Greenwich, CN, 1981, pp. 117–48.

[28]George E. Peterson with Brian Cooper, *Tax Exempt Financing of Housing Investment*, Washington, DC, The Urban Institute, 1979, pp. 103–29.

[29]These interest payments are calculated for the life of the bonds, conservatively estimated at 12 years. Mortgage revenue bond issues for 1984 are estimated at $14 billion, based on Assistant Secretary of the Treasury Chapoton's testimony before the Senate Committee on Finance, September 18, 1983.

[30]*Tax Notes*, April 24, 1984, p. 392.

[31]Bonds issued for infrastructure (structures and equipment) are estimated to have an average life of 18 years, compared to the previously cited estimate of a 12-year life for mortgage revenue bonds.

[32]GAO, *Ibid*., pp. 30–31.

[33]Petersen, John E., "Responses of State and Local Governments to Varying Credit Conditions," *Federal Reserve Bulletin*, March 1971, pp. 209–32.

[34]Joint Economic Committee, *Trends in Fiscal Conditions of Cities: 1980-82*, 97th Congress, 2nd Session, September, 1982.

[35]GAO, *Ibid*, pp. 26–31.

[36]U.S. Congress, Joint Committee on Taxation, *Federal Tax Expenditures* (JCS 4–83), March 7, 1983 as reprinted in *Tax Notes*, March 21, 1983, pp. 1073–80.

[37]The *1985 Budget (Special Analysis G)* put the total revenue loss at $16.4 billion; private purpose accounted for $7.3 billion.

[38]Congressional Budget Office, *Small-Issue Industrial Revenue Bonds, 1980–1982*, May 1983, p. 4, fn. 6.

[39]Some jurisdictions have funded their industrial development authorities or housing finance agency from investment earnings and fees paid by borrowers.

[40]Joint Committee on Taxation, *Trends in the Use of Tax-Exempt Bonds*, June 13, 1983, p. 27.

[41]Letter of September 9, 1983, commenting on a proposed chapter on municipal borrowing for the ACIR's forthcoming study of local revenue diversification from Wayne F. Anderson to Susannah E. Calkins, Advisory Commission on Intergovernmental Relations.

Appendix A

SELECTED TABLES

Table A–1

VALUE-ADDED TAXES OF EUROPEAN ECONOMIC COMMUNITY COUNTRIES: HISTORY, RATES, COVERAGE AND EXEMPTIONS

Country	Introduced	Tax Replaced	Rates (percent)		Coverage[1]	Exemptions[2]
Belgium	1971	Cascade Turnover Tax	Increased[3]	25.0	Automobiles, jewelry, furs, television sets	Sale of previously occupied immovable property; leasing of immovable property,[5] medical, dental, and legal services; education; banking; insurance
			Standard[3]	19.0	Taxable items not subject to a special rate	
			Intermediate	17.0	Restaurants and cafes, buildings and transactions related to immovable property, fuels and energy, footwear and care of clothing.	
			Reduced[3]	6.0	Food,[4] tobacco, nonmotor fuels, medicine, newspapers and books	
Denmark	1967	Wholesale Sales Tax	Standard	20.25	All taxable goods and services	Sale of previously occupied immovable property; medical and dental services; supply of gas, water, electricity and heating for household use; banking and insurance; education
France	1968[6]	Manufacturers' Sales	Increased	33-1/3	Automobiles, jewelry, furs, television sets, tobacco	Sale of previously occupied immovable property,[5] medical, dental and legal services; education; banking and insurance
			Standard	18.6	Taxable items not subject to a special rate	
			Reduced	7.0	Food,[4] books, medicine	
			Super-reduced	5.5	Water, certain foods and dairy products	
Germany	1968	Cascade Turnover Tax	Standard	14.0	Taxable items not subject to a special rate	Sale of previously occupied immovable property; leasing of immovable property,[5] medicine and dental services; education; banking; insurance; postal services; radio and television broadcasting, except advertising
			Reduced	7.0	Food,[4] newspapers, books, orchestra performances, legal services, municipal transportation	
Ireland	1973	Retail Sales Tax Wholesale Sales Tax	Standard	35.0	Taxable items not subject to a special rate	Sale of previously occupied immovable property; leasing of immovable property,[5] medical, dental and legal services; education; banking and insurance; broadcasting and television, except advertising; transportation of persons
			Reduced	23.0	New buildings, medicine, and goods subject to separate excise taxes, such as automobiles, motor fuel, alcohol and tobacco, real property, newspapers	
			Special	5.0	Fuel, other than electricity, certain agricultural services, immovable goods	
			Zero[7]	0	Food,[4] nonmotor fuel, clothing, books and medical appliances and devices	

Source: International Bureau of Fiscal Documentation, *Guides to European Taxation Vol. IV. Value Added Taxation Europe, Amsterdam, Current looseleaf service.*

Table A–1

VALUE-ADDED TAXES OF EUROPEAN ECONOMIC COMMUNITY COUNTRIES: HISTORY, RATES, COVERAGE AND EXEMPTIONS *(continued)*

Country	Introduced	Tax Replaced	Rates (percent)		Coverage[1]	Exemptions[2]
Italy	1973	Cascade Turnover Tax	Increased	38.0	Jewelry, furs, large automobiles	Sales of previously occupied structures, leasing of immovable property,[5] medical and dental services; education; banking; insurance; public transportation; postal and telegraph services
				20.0	Small automobiles, television sets, gasoline and cameras	
			Standard	18.0	Taxable items not subject to special rate	
				10.0	Food,[4] medicines, gas and electricity for household use, low-priced housing, private telephone service	
			Reduced	8.0	Public telephone service, coffee, wine, pharmaceutical products	
				2.0	Certain food products, books, orthopedic devices	
			Zero	0	Newspapers	
Luxembourg	1970	Cascade Turnover Tax	Standard	12.0	Taxable items not subject to a special rate	Sale of previously occupied immovable property; leasing of immovable property;[5] medical and dental services; banking; insurance; postal and telephone services
			Reduced[8]	6.0	Food, electricity and fuels for heating and lighting, books, legal services, and transportation of persons, newspapers, eyeglasses, and orthopedic devices	
Netherlands	1969	Cascade Turnover Tax	Standard	18.0	Taxable items not subject to a special rate	Sale of previously occupied immovable property; leasing of immovable property,[5] medical and dental services; education; banking; insurance; radio and television broadcasting, except advertising; postal, telegraph and telphone services; newspapers
			Reduced	4.0	Food, public transportation, medicine, books	
United Kingdom	1973	Purchase Tax and Selective Employment Tax	Standard	15.0	Taxable items not subject to a zero rate	Sale of previously occupied immovable property; leasing of immovable property;[5] medical and dental services; education, banking; insurance; postal services
			Zero	0	Food, children's clothing, fuel and power, new buldings, transportation of persons, books	

[1]The list of items covered is illustrative, not exhaustive.
[2]This lists the more important exemptions, but is not a complete list of all exemptions.
[3]Belgium law states maximum rates and allows lower rates to be set administratively. At present, the maximum rates allowed by law are: increased, 25%; normal, 20%; and reduced, 6%.
[4]Food purchased for on-premises consumption, such as at a restaurant, is taxed at the standard rate.
[5]The leasing of immovable property to taxable persons is a taxable transaction. This allows the lessee a deduction for tax paid to the lessor.
[6]France introduced a value-added tax in 1954–1955 as part of a general tax reform. It did not, however, apply to the retail sector or to services. This original value-added tax was substantially reformed in 1968. It now applies to all stages of production and distribution, including retail trade and services.
[7]The "zero rate" treats the taxable item as incurring a rate of zero on its sale but allows a credit for tax paid on purchases. Thus, an item taxed at a rate of zero bears no tax. This is in contrast to an exempt transaction where no tax is charged on the sale but no deduction or credit is allowed for tax paid on purchases.
[8]A special reduced rate of 3% applies to certain essential items in the food, dairy, and medicine categories. This rate is not part of the value-added tax law but has been included in recent budget laws. Its intent is to provide additional tax relief on highly essential items.

Table A-2

TAX REVENUE OF OECD MEMBER COUNTRIES BY SOURCE AS PERCENTAGE OF GROSS DOMESTIC PRODUCT, 1981

Country	All Taxes	Income and Profits	Social Security	Property Taxes	Taxes on Goods and Services	Addendum: VAT
Australia	31.6%	17.9%	—	2.4%	9.5%	0
Austria	42.5	11.5	13.4%	1.2	13.3	8.6%
Belgium	45.4	18.3	14.0	0.9	12.1	8.0
Canada	34.7	15.7	4.0	3.0	11.7	0
Denmark	45.3	25.0	1.0	2.3	16.9	10.3
Finland	36.8	18.6	3.0	0.8	14.4	0
France	43.0	7.9	18.3	1.6	12.8	8.9
Germany	37.3	12.7	13.3	1.0	10.1	6.3
Greece	29.2	5.5	10.1	1.3	11.7	0
Ireland	38.4	14.0	5.4	1.7	17.2	6.0
Italy	33.7	11.9	12.1	1.4	8.3	5.0
Japan	26.9	10.9	8.1	2.3	4.3	0
Luxembourg	34.1	14.8	9.9	2.0	7.3	4.0
Netherlands	45.4	14.4	18.2	1.7	11.0	7.1
New Zealand	32.8	22.6	—	2.6	7.6	0
Norway	48.5	20.5	10.1	0.8	16.7	8.6
Portugal	31.1	7.0	9.1	0.5	13.4	0
Spain	25.2	6.4	12.1	1.1	5.5	0
Sweden	51.3	22.0	15.2	0.4	12.2	6.9
Switzerland	30.3	12.6	9.4	2.3	6.0	0
Turkey	19.3	11.6	1.0	1.2	5.5	0
United Kingdom	37.4	14.4	6.1	4.8	10.6	4.7
United States	31.2	14.4	8.3	3.0	5.5	0
OECD Total	36.2%	14.4	8.8	1.8	10.6	N/A

Source: *Revenue Statistics of OECD Member Countries, 1965–1982;* Organisation for Economic Co-operation and Development, 1983.

Table A–3

TOTAL TAX REVENUES AS PERCENTAGE OF GROSS DOMESTIC PRODUCT, 1971 AND 1981

Country	1971	1981	Percentage Point Change
Australia	25.9%	31.6%	5.7%
Austria	36.3	42.5	6.2
Belgium	36.7	45.4	8.7
Canada	31.2	34.7	3.5
Denmark	43.5	45.3	1.8
Finland	33.6	36.8	3.2
France	35.1	43.0	7.9
Germany	33.4	37.3	3.9
Greece	24.4	29.2	4.8
Ireland	32.4	38.4	6.0
Italy	28.7	33.7	5.0
Japan	20.0	26.9	6.9
Luxembourg	32.1	34.1	2.0
Netherlands	41.7	45.5	3.8
New Zealand	27.0	32.8	5.8
Norway	42.4	48.5	6.1
Portugal	22.8	31.1	8.3
Spain	17.4	25.2	7.8
Sweden	41.2	51.3	10.1
Switzerland	23.5	30.3	6.8
Turkey	19.4	19.3	−0.1
United Kingdom	35.2	37.4	2.2
United States	28.8	31.2	3.3
OECD Total	31.0	36.2	5.2

Source: *Revenue Statistics of OECD Member Countries, 1965–1982*, Organisation for Economic Co-operation and Development, 1983.

Table A–4

TAX REVENUE OF OECD MEMBER COUNTRIES BY SOURCE AS PERCENTAGE OF TOTAL TAXES, 1981

Country	Income and Profits	Social Security	Property Taxes	Taxes on Goods and Services	Addendum: VAT
Australia	56.8%	—	7.8%	30.2%	0
Austria	27.0	31.5%	2.7	31.3	20.1%
Belgium	40.3	30.9	2.0	26.7	17.6
Canada	45.2	11.5	8.5	33.6	0
Denmark	55.2	2.1	5.1	37.4	22.9
Finland	50.5	8.2	2.0	39.0	0
France	18.4	42.7	3.7	29.7	20.8
Germany	34.1	35.5	2.6	27.1	17.0
Greece	19.0	34.6	4.5	40.1	0
Ireland	36.4	14.1	4.5	44.8	15.5
Italy	35.4	35.9	4.1	24.7	14.9
Japan	40.7	30.0	8.6	15.9	0
Luxembourg	43.3	29.1	5.7	21.3	11.8
Netherlands	31.6	40.0	3.7	24.3	15.7
New Zealand	68.9	—	8.0	23.1	0
Norway	42.4	20.9	1.7	34.5	17.6
Portugal	22.4	29.2	1.5	42.9	0
Spain	25.2	48.1	4.3	21.9	0
Sweden	42.8	29.6	0.9	23.9	13.5
Switzerland	41.6	30.9	7.5	20.0	0
Turkey	60.2	5.0	6.3	28.4	0
United Kingdom	38.6	16.2	12.9	28.4	12.6
United States	46.3	26.5	9.6	17.6	0
OECD Total	40.1%	24.0%	5.1%	29.0	N.A.

Source: *Revenue Statistics of OECD Member Countries, 1965–1982;* Organisation for Economic Co-operation and Development, 1983.

Appendix B

Macroeconomic Effects of VAT: Two Simulations

The economic effects of the VAT were discussed in general terms in earlier sections of this report. In this section the results of two simulations of the effects of a value-added tax on the U.S. economy are discussed. The first is a simulation of the 1980 Ullman proposal using the Data Resources econometric model. The second, prepared by Norman Ture in 1979, uses the Analysis of Tax Impacts model. Although each of these simulations were prepared under different economic conditions than those that exist today, the general trends forecast by both models should be reasonably accurate. The specific numbers, however, could be subject to a considerable range of error.

An examination of the economic simulation of the effects of the Ullman VAT proposal could be particularly instructive because a proposal for a national VAT could be similar. The analysis of the Ullman proposal includes two separate simulations: The first, a baseline simulation, assumes no change in current tax provisions. The second simulation is identical to the first except that it includes the provisions of the Tax Resturcturing Act of 1980 instead of the existing tax provisions. The provisions are a 10% VAT and the replacement of a portion of the personal income tax ($40 billion) and Social Security payroll taxes ($43 billion), a reduction in corporation income tax rates ($22 billion), and liberalized capital recovery and investment credit provisions ($10 billion).

The first portion of this discussion reviews the impact of the Ullman tax package on the economy and the final portion discusses the differences between the baseline and the Ullman simulations.

ULLMAN SIMULATION

The purpose of the Ullman restructuring of the tax system was to shift income into savings and investment, to improve the level of productivity, and ultimately to reduce inflation. The tax changes were designed to shift resources from consumption into investment by curbing consumption spending and stimulating investment spending.[1]

For purposes of the simulation, it was assumed that the VAT was fully passed forward to the consumer on those items subject to the tax. The ultimate change in overall prices was, of course, different from the direct changes introduced, because of subsequent movements in wages and the induced feedback impacts of the higher prices and other taxes. Those price increases are the major factor curbing consumption. The reduction in income and payroll taxes included in the proposal increased disposable income, but not by enough to offset the price increases. In the simulation for the first year, 1981, the price of aggregate consumption expenditure increased 4.9% and personal disposable income increased 2.7%—resulting in a 2.1% decline in disposable income. While this resulted in a decline in real consumption spending, the decline was not as great as the decline in real disposable income because savings are reduced in an attempt to maintain the current standard of living.

The business tax cuts in the Ullman proposal resulted in a $46 billion increase in business cash flow. Unlike households, there was no direct increase for business in the price of capital goods. The result was a substantial increase in the real purchasing power of business firms. This produced a significant increase in business investment—an important factor because it supports aggregate demand and increases employment and income, offsetting some of the reduced demand from the consumption sector. This increase in business investment also contributes to potential aggregate supply by increasing the capital stock. In the long run, this in turn raises worker productivity, reduces unit labor costs and weakens inflationary pressures.

In the Ullman simulation projections, after a near-term setback in 1981, real GNP and real consumption increase steadily through 1985. Business investment spending increases significantly, as does residential construction. There is also a general easing in inflation. Real wages are increased and there is some reduction in unemployment. *Table B–1* presents the projections of the various categories of real consumption expenditures. The differential impact on the various categories is due mainly to the preferential treatment of such items as food, housing and health care.

Table B–2 presents a comparison of the Ullman simulation with the baseline simulation. (Positive numbers indicate higher growth rates under the Ullman proposal.) The Ullman program would have resulted in lower GNP than the existing tax structure, but the difference gets smaller each year until there is no difference in 1985. Real consumption expenditures, however, are lower throughout the simulation period. In contrast, real-business fixed investment in the Ullman simulation exceeded the baseline level beginning in 1981 and continued to increase each year by ever-increasing amounts. The result of the business tax cuts would be a strong stimulus to GNP, consumption and productivity, and a restraint on inflation. The price increases caused by the VAT result in a reduction in real disposable income, but at a declining rate. There is no effect on real federal government expenditures, but real state-local spending is lower.

The increases in real after-tax net profits shown in *Table B–2*, reflect mainly (1) the cash flow effects on business from the reduction of the corporate income tax rate and the employers payroll tax rate, and (2) the benefits from the accelerated capital recovery provision. The immediate effect of these changes are higher profits which are then shared with employees in the form of higher wages and salaries and with consumers in the form of lower prices. Higher profits also act as a stimulus to increased capital investment spending which in turn increases productivity, and subsequently leads to lower inflation and higher compensation per man-hour.

The VAT would raise consumer prices 4.3%

Table B-1

REAL PERSONAL CONSUMPTION EXPENDITURES IN ULLMAN SIMULATION

(percent change from preceding year)

Categories of Expenditure	1981	1982	1983	1984	1985
Total Personal Consumption	−1.2%	3.2%	2.9%	3.2%	3.4%
Durable Goods	−6.7	5.0	5.2	5.8	5.6
Autos and Parts	−9.1	7.7	5.7	7.5	5.6
Furniture and Appliances	−5.3	4.4	5.4	4.8	5.2
Other Durable Goods	−5.1	0.8	3.9	4.7	6.6
Nondurable Goods	−1.3	2.0	2.0	2.6	2.7
Food and Beverages	1.3	1.1	1.3	1.6	1.9
Clothing and Shoes	−1.6	2.7	3.2	4.1	4.0
Gasoline and Oil	−4.4	−3.0	−1.0	0.3	1.0
Fuel Oil and Coal	−2.2	0.9	−0.5	2.5	2.6
Other Nondurable Goods	−6.3	5.2	3.6	4.1	4.0
Services	0.7	3.6	3.0	3.0	3.3
Housing	1.9	4.8	3.0	2.8	3.1
Owner Occupied	1.9	5.4	2.9	2.5	2.8
Other	2.0	3.3	3.2	3.6	4.0
Household Operation	0.2	4.0	3.2	3.6	3.8
Electricity	−0.2	1.2	2.7	3.8	3.9
Natural Gas	3.9	5.5	3.1	3.1	2.9
Other	−0.2	5.0	3.5	3.6	3.9
Transportation	−3.8	1.8	2.3	2.6	3.0
Other Services	0.6	2.8	3.0	3.0	3.2
Real Consumption					
As Percent of Real GNP	64.7	64.1	64.0	63.9	63.8
Per Capita	$4,098.2	$4,189.3	$4,271.6	$4,368.6	$4,475.2

Source: The American Retail Federation, *Value-Added Tax*, Cambridge Research Institute, 1980.

above the baseline projection in the first year, but the price effect becomes less each year until there is little difference in 1985. The much larger increase in wholesale prices in the first year occurs because taxes are paid on some items, such as food and drugs, at wholesale (or intermediate stage), but are not taxed at the retail stage.

TURE SIMULATION

Ture evaluated the impact of the VAT on the economy as an additional tax and as a replacement for other taxes, using the Analysis of Tax Impacts model.

Levied as an additional tax, the VAT would increase the cost of consumption and saving and of capital and labor services, reduce capital formation, and slow the growth in production capacity and in total output. If the VAT were substituted for other taxes, the effects would vary depending on which taxes were replaced.

The first simulation evaluated the enactment of a 5.92% VAT as an additional revenue source. (The specific rate was selected because

it would raise enough money to replace employee's federal payroll taxes in 1980.) The simulation indicated that adding a 5.92% VAT to the federal tax system would have serious adverse effects on all major economic variables, although there would be a substantial reduction in the federal deficit.

A VAT would reduce the amount of private savings and increase the cost of capital services to business. This would retard capital investment, slow productivity growth, and reduce the real wage rate. In addition, the increased cost for labor services would slow employment growth. According to Ture's projections, there would be 1.8 million fewer jobs in 1980 and almost 3 million fewer jobs in 1989 than would

Table B–2

SUMMARY OF COMPARISONS OF ECONOMIC MEASURES DIFFERENCES BETWEEN ULLMAN AND BASELINE PROJECTIONS

Economic Measures	1981	1982	1983	1984	1985
			Percent Differences		
Real GNP	−0.7%	−0.5%	−0.3%	−0.3%	0.0%
Real Consumption	−1.3	−1.3	−1.3	−1.1	−0.9
Real Business Fixed Investment	0.4	0.3	6.3	6.7	7.1
Real Residential Housing	−1.1	−2.9	−2.3	0.0	2.8
Real Federal Government Expenditure	0.0	0.0	0.0	0.0	0.0
Real State and Local Expenditure	−0.2	−0.6	−1.2	−1.4	−0.9
Real Disposable Income	−1.8	−1.2	−0.9	−0.8	−0.5
Real After Tax Profits	4.5	3.3	3.3	−0.2	−1.2
			Percent Differences of Percentage Rates		
Unemployment Rate	0.16%	0.26%	0.20%	0.27%	0.28%
Personal Saving Rate	−0.40	0.10	0.40	0.30	0.30
Three Month Treasury Bill Rate	0.66	0.79	0.39	0.26	−0.10
Federal Funds Rate	0.59	1.04	0.45	0.23	−0.28
Prime Rate	−0.05	0.37	0.14	0.06	−0.40
New Hi-grade Corporate Bond Rate	0.68	0.87	0.64	0.27	−0.03
			Percent Differences of Year-to-Year Percent Changes		
Index of Industrial Production	−1.3%	0.4%	1.2%	−0.6%	0.3%
Productivity—Output per Hour	−0.8	0.6	0.3	0.1	0.4
Compensation per Man-Hour	−0.6	1.8	1.3	0.9	0.6
Implicit GNP Deflator	3.73	0.71	0.74	0.30	−0.05
Wholesale Price Index	7.72	0.48	0.76	0.29	−0.10
Consumer Price Index—Urban Consumers	4.3	1.2	0.6	0.3	0.1
			Differences in Levels (in billions of dollars)		
Federal Budget Surplus (NIA)	$5.4	$3.7	$5.3	$1.7	$0.8

Source: The American Retail Federation, *Value-Added Tax*, Cambridge Research Institute, 1980.

Table B-3

THE VAT AS AN ADDITIONAL TAX [TURE]

(dollar amounts in billions of constant 1979 dollars)

Increase or Decrease (–) in:	1980	1982	1984	1989
Employment (in thousands of full-time equivalent employees)	(1,800)	(2,140)	(2,510)	(2,940)
Annual Wage Rate	$ (390)	(580)	(800)	(970)
Gross National Product				
Total	$ (103)	(146)	(198)	(260)
Business sector	$ (90)	(122)	(161)	(212)
Gross Private Domestic Investment				
Total	$ (64)	(101)	(126)	(75)
Nonresidential	$ (58)	(90)	(110)	(62)
Consumption	$ (47)	(56)	(84)	(200)
Net Exports	$ 8	11	12	15
Exports	$ (2)	(4)	(8)	(11)
Imports	$ (10)	(15)	(20)	(26)
Federal Tax Revenues				
Initial impact (VAT)	$ 73	81	91	106
Net of feedback	$ 52	58	65	61

Note: The figures are the differences between the estimated amount of the respective economic magnitudes under the tax change and under present law in each year.

Amounts shown in parentheses are decreases from present law in that year, not from the preceding year under the tax change.

Estimates of employment effects are rounded to the nearest 10,000; estimates of annual wage effects are rounded to the nearest $10; estimates of effects on GNP, capital outlays, consumption, and federal revenues are rounded to the nearest $1 billion.

Source: Norman B. Ture, *The Value-Added Tax: Facts and Fancies*, the Heritage Foundation, 1979.

be the case under the then current tax structure.

The reduction in the use of labor and capital inputs would significantly depress real output: There would be a GNP shortfall of $103 billion (1979 dollars) in 1980, increasing to $260 billion in 1989.

Initially investment would fall more sharply; but when the adjustment to the reduced stock of capital was completed, consumption would fall more rapidly as consumers adjusted to the lower levels of real incomes. In 1980 consumption spending falls about $47 billion below levels projected under present law, growing to about $200 billion in 1989.

The VAT would have a favorable impact on the balance of trade as taxes paid on goods for export would be rebated, increasing the relative cost of domestic production compared with production for export. Exports would decline, but much less than aggregate output. Imports would decline much more in response to the fall in aggregate income (below amounts projected under existing taxes).

A second alternative examined by Ture was the replacement of one-sixth of the corporate income tax by a 1.25% VAT. This would reduce the marginal tax rate on capital and increase marginal tax rates on labor.

The results, shown in *Table B-4*, are much

as one would expect. Business investment increases significantly, but the higher cost of labor services results in a modest reduction in employment. The net effect is positive as real GNP increases faster than under the present tax system and—after declining slightly in the early years—consumption increases in the out years. There is also a small improvement in the trade balance.

The other alternatives analyzed by Ture will not be examined in any detail. Briefly, however, substitution of a VAT for social security payroll taxes would significantly depress economic activity largely because of a substantial increase in the cost of capital services. Substitution of a VAT for 30% of the individual income tax would have very positive effects on the economy because of the reduced cost of labor services and encouragement of savings and investment. Substitution of a VAT (12.25% rate required) for the three taxes discussed in this section would, according to Ture, result in a significant improvement in economic activity, because of large reductions in overall marginal rates of tax on labor and capital income.[2]

In conclusion, adoption of a VAT in the

Table B–4

SUBSTITUTION OF THE VAT FOR ONE-SIXTH OF THE CORPORATION INCOME TAX [TURE]

(dollar amounts in billions of constant 1979 dollars)

Increase or Decrease (−) in:	1980	1982	1984	1989
Employment (in thousands of full-time equivalent employees)	(100)	(70)	(20)	(20)
Annual Wage Rate	$ 130	180	230	270
Gross National Product				
Total	$ 14	23	34	44
Business sector	$ 9	15	23	29
Gross Private Domestic Investment				
Total	$ 16	26	39	21
Nonresidential	$ 23	35	49	24
Consumption	$ (4)	(4)	(6)	21
Net Exports	$ 2	1	1	2
Exports	$ 3	3	4	6
Imports	$ 1	2	3	4
Federal Tax Revenues				
Initial impact	$ 0	1	1	2
Net of feedback	$ 2	3	4	9
VAT	$ 15	17	19	23

Note: The figures are the differences between the estimated amount of the respective economic magnitudes under the tax change and under present law in each year.

Amounts shown in parentheses are decreases from present law in that year, not from the preceding year under the tax change.

Estimates of employment effects are rounded to the nearest 10,000; estimates of annual wage effects are rounded to the nearest $10; estimates of effects on GNP, capital outlays, consumption, and federal revenues are rounded to the nearest $1 billion.

Source: Norman B. Ture, *The Value-Added Tax: Facts and Fancies*, the Heritage Foundation, 1979.

United States would have substantial initial impacts on the level of economic and on the fiscal situation of individual companies. But after absorbing these initial impacts, the economy and individual companies would adapt to a new dynamic equilibrium that would be little different than exists in the absence of a VAT.

The transition period would include enough time to absorb the initial impact of a VAT on prices, to cover any surge or slump in sales from anticipatory buying, and to reach a steady state on cash flows from collection of the tax by the government. This period should last only a few months. Differential effects arising from changes among industries and among companies within an industry would extend over a longer period of time but would become indiscernible from other changes in the economy.

FOOTNOTES

[1]*Value-Added Tax, A Study Prepared for American Retail Federation*, Cambridge Research Institute, June 30, 1980, Washington, DC, p. 23.

[2]For a more complete discussion see: Norman B. Ture, *The Value Added Tax: Facts and Fancies*, The Heritage Foundation, 1979.

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ESTIMATED FEDERAL TAX SAVINGS FROM DEDUCTIBILITY OF ALL STATE-LOCAL TAXES TOTAL AND PER CAPITA, BY STATE, 1984

State	Total Tax Savings (millions of dollars)	Tax Savings Per Capita	Index (100 = average)
Alabama	$ 251	$ 62	52
Alaska	45	101	85
Arizona	274	94	78
Arkansas	123	53	44
California	4664	185	154
Colorado	426	137	114
Connecticut	480	150	125
Delaware	107	174	145
Florida	478	45	38
Georgia	492	86	71
Hawaii	179	177	147
Idaho	82	84	70
Illinois	1390	119	99
Indiana	320	57	48
Iowa	307	104	87
Kansas	218	89	74
Kentucky	280	75	62
Louisiana	151	34	28
Maine	87	75	63
Maryland	916	211	176
Massachusetts	1146	195	162
Michigan	1619	175	146
Minnesota	761	181	151
Mississippi	116	45	37
Missouri	384	76	63
Montana	64	78	65
Nebraska	162	101	84
Nevada	46	52	43
New Hampshire	72	74	62
New Jersey	1277	169	141
New Mexico	81	59	49
New York	4729	263	219
North Carolina	537	88	73
North Dakota	31	46	38
Ohio	904	82	69
Oklahoma	240	74	62
Oregon	389	144	120
Pennsylvania	1199	99	83
Rhode Island	123	126	105
South Carolina	253	78	65
South Dakota	23	33	27
Tennessee	154	33	27
Texas	643	41	34
Utah	160	101	84
Vermont	49	93	77
Virginia	712	127	106
Washington	260	60	50
West Virginia	79	40	33
Wisconsin	820	169	141
Wyoming	20	39	32
U.S. TOTAL/AVERAGE	28480	120	100

SOURCE: ACIR staff computations using unpublished 1980 IRS Individual Income Tax Model file and November 1984 Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 1984–1989.*

WHAT IS ACIR?

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