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**The Role of Administrative Issues in Tax Reform:
Simplicity, Compliance, and Administration***

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ABSTRACT

This paper examines the role of complexity, evasion, and administration in tax reform. We describe the features of tax systems that generate complexity and evasion and explore why, even though almost everyone agrees that taxes should be simple and perfectly enforced, no tax system appears to meet those standards. We describe structural and administrative changes that could significantly simplify the existing system. We show that a national retail sales tax would prove difficult, if not impossible, to administer because of high rates, tax evasion, and political pressure to exempt certain goods. The flat tax would be administrable, but would likely become significantly more complex than proposed due to political pressure to restore popular tax subsidies and reduce tax avoidance. Although it commands widespread support and is technically feasible, substantial tax simplification will prove difficult to achieve in the existing system or a new one.

The basic administrative goals of tax policy are uncontroversial: taxes should be easy to understand and comply with, and they should be enforced and administered in a competent and fair manner. Despite nearly universal agreement over these goals, administrative issues raise difficult issues for researchers and policymakers. Researchers have not reached consensus regarding many of the most basic questions in the existing tax system, such as the costs of compliance and the determinants of tax evasion. Even when research does produce reliable answers to these questions, policymakers face difficult trade-offs both among the various administrative goals noted above and between administrative goals and other widely-held goals of tax policy, such as equity and efficiency.

Administrative issues have also been in the forefront of efforts to reform taxes in recent years. Perhaps the most common complaint about the existing tax system is the level of complexity. The nature of activities undertaken by the Internal Revenue Service has also proven highly controversial. The desire to address these issues generates much of the impetus for fundamental tax reform—replacing the current system with either the flat tax or a national retail sales tax.

This paper examines the role of administrative factors in tax policy and tax reform and is organized as follows. Section I summarizes conceptual and measurement issues relating to tax complexity and tax evasion. We also examine which features of the tax code generate complexity and evasion, and explore the reasons why complexity and evasion exist, even though almost everyone agrees that the ideal tax would be simple and have perfect compliance.

Section II examines administrative issues in the income tax. We show that estimates of the costs of compliance, administration, and enforcement of the income tax vary widely, due in part to inadequate data. Our best estimate is that, in 1995, those costs ranged between \$75 billion

and \$130 billion, or between 10 and 17 percent of revenues. The income tax evasion rate is about 17 percent, but varies significantly by type of income. This section also examines issues concerning how the Internal Revenue Service administers the tax system, and closes with a discussion of modifications of the existing tax system that could reduce complexity and evasion and improve administration.

Section III examines administrative issues in a national retail sales tax (NRST). As proposed, the sales tax would greatly simplify taxes. But the NRST would actually require a much higher tax rate than is commonly proposed, for a number of technical reasons discussed below. The high tax rate would create strong incentives for (legal) tax avoidance and (illegal) tax evasion. Coupled with a lack of effective enforcement mechanisms, the higher rate could lead to widespread evasion, and raises serious concerns about whether such a tax would be administrable and enforceable.

Section IV examines similar issues in the proposed “flat tax.” The pure flat tax would greatly simplify taxes, and enforcement and administration would not prove difficult. The main administrative issue is that the flat tax would likely end up much more complicated than proposed, in response to tax avoidance behavior and political pressures.

However, an important caveat to any analysis of administrative issues in fundamental tax reform is that no country has successfully enacted or administered a high rate national retail sales tax or a flat tax. Tax systems that exist in the real world have been forged through a combination of revenue requirements, political pressures, responses to taxpayer avoidance and evasion, lobbying, and other processes that any operating tax system would eventually have to face. Notably, all of these factors tend to raise complexity. In contrast, tax systems that exist only on paper—such as the NRST and the flat tax—appear to simpler in significant part because they

have not had to face real world tests yet.

Section V offers concluding remarks. Tax simplification is a long-standing issue that garners widespread support, at least in principle, and is technically feasible. But the fact that most existing taxes turn out to be far more complex than most proposed alternatives should serve as a caveat to the view that achieving tax simplification, in the existing system or in a new tax system, will prove easy or durable.

I. Preliminary Issues¹

A. Complexity

Tax complexity has many dimensions and could plausibly be defined in different ways. Following Slemrod (1984), we define the complexity of a tax system as the sum of compliance costs—which are incurred directly by individuals and businesses—and administrative costs—which are incurred by government. Compliance costs include the time taxpayers spend preparing and filing tax forms, learning about the law, and maintaining record-keeping for tax purposes.² The costs also include expenditures of time and money by taxpayers to avoid or evade taxes, to have their taxes prepared by others, and to respond to audits, as well as any costs imposed on any third-parties, such as employers. Administrative costs, although incurred by government, are ultimately borne by individuals. These costs include the budget of the tax collection agency, and the tax-related budgets of other agencies that help administer tax programs.³

¹Slemrod and Yitzhaki (2000) provide an excellent summary and analysis of issues relating to tax avoidance, evasion, and administration.

²These items constitute the costs measured by the Paperwork Reduction Act of 1980 and printed in the instructions for federal tax forms.

³For example, the Department of Labor certifies employers as eligible for the Work Opportunity Tax Credit and the Welfare-to-Work Tax Credit.

Defining complexity as the total resource cost provides a quantitative measure by which different tax systems can be compared, and by which the administrative aspects of a particular tax system can be evaluated relative to its impacts on equity, efficiency, and revenue. But the definition is not ideal. Slemrod (1989a) points out that a particular subsidy could be so complicated that few taxpayers use it. If it were simplified, and enough additional people used the subsidy, total resource costs would rise, even though the subsidy itself had become less complicated.

A number of issues arise in efforts to measure compliance and administrative costs. First, permanent and transitory costs may differ. A new tax provision may raise compliance costs temporarily, as people learn about the change, even if it reduces costs in the long-term. Likewise, for administrative costs, the capital cost of upgrading IRS computers might appear as a current-year budget expenditure rather than being amortized over time. Second, only the *incremental* costs due to taxes should be included. Even with no taxes, firms would need to keep track of income and expenses to calculate profits, and individuals would engage in financial planning. This activity should be omitted from compliance cost measures. Third, an analysis of tax complexity alone may generate misleading conclusions. Governments can impose policies via taxes, spending, regulations, or mandates. Any tax provision can be made simpler by eliminating it, but if it then is recreated as a spending program, the overall complexity of government may rise.

The level of complexity can be influenced by structural elements—such as the tax base, the tax rate structure, and the allowable deductions, exemptions, and credits—as well as by administrative features of the tax code. The three most discussed tax bases are income, wages, and consumption. Holding the other features of the tax system constant, income is the most

difficult of the three bases to tax. Income may be decomposed into its sources—wages and capital income—or its uses—consumption and saving. For a wide variety of measurement and timing reasons, it is generally easier to tax wages than capital, and easier to tax consumption than saving.

Tax rates are typically either graduated, like the current income tax, or flat, like the payroll tax. Flat-rate taxes can have lower compliance costs than graduated taxes. The presence of graduated rates gives taxpayers incentives to avoid taxes by shifting income over time or across people. And flat-rate taxes allow more efficient administrative structures to function. Taxes imposed at flat rates can be easily collected at source, since the rate does not vary across taxpayers.

Exemptions, deductions or credits that are universal create little complexity. However, targeted provisions require clear definitions of eligible taxpayers and activities, and can create compliance headaches. Finally, different ways of administering taxes may affect complexity. For example, withholding taxes at source or eliminating the requirement to file a tax return could reduce compliance costs for individuals.⁴

The discussion above suggests that, other things equal, the simplest system would tax consumption at a flat rate with universal deductions, credits or exemptions, and with withholding at source. Yet, the U.S. and many other countries tax income on a graduated basis, with numerous targeted credits and deductions, and with withholding at source only for certain types of income. Given the prevalence of these alternative systems, and absence of any country that taxes only in the simplest way described above, it is instructive to ask why existing systems

⁴However, as we discuss below, some of those costs may be shifted to employers, other businesses, or government agencies.

deviate so strongly from the simplest structure.

We believe that three factors are paramount in explaining why tax systems are complex. The first is conflict among the consensus goals of tax policy. Although almost everyone agrees that taxes should be simple, most people also agree that taxes should be fair, conducive to economic prosperity, and enforceable. Even if all parties agree on these goals, they do not typically agree on the relative importance of each goal. As a result, policy outcomes usually represent efforts to balance one or more goals against the others. That is, sometimes a certain amount of complexity is created or permitted in order to help achieve other policy goals. For example, attempts to make taxes fairer often conflict with attempts to make taxes simpler. Most countries tailor tax burdens to the characteristics of individual taxpayers. This may improve tax equity, but it also creates complexity. It requires tracing income or consumption from the business sector to the individual. It requires reporting and documenting individual characteristics such as marital status, number of dependents, and age, as well as the composition of expenditures or income. It allows tax rates that vary with individual characteristics, creating opportunities for tax avoidance.

The second factor that generates tax complexity is the political process. Politicians and interest groups have interests in targeted subsidies that reduce taxes for particular groups or activities. But targeted subsidies inevitably make taxes more complex by creating more distinctions among taxpayers and among sources and uses of income.

The third factor that creates complexity is the ability and willingness of taxpayers to avoid or evade taxes. Taxpayers have every right to reduce their taxes by any legal means possible. Such activity, however, inevitably creates issues about whether particular activities or expenditures qualify for tax-preferred status. Resolving these issues typically results in complex

laws or regulations, developed in order to describe the limits of tax rules more fully, or complex transactions, undertaken to obtain favorable tax treatment, or both.

Recognition of these factors has at least three important implications for the study of tax complexity. First, the fundamental question is *not* the overall level of complexity, but whether particular tax provisions or tax systems provide good value for the complexity they create. This depends on the magnitude and incidence of the costs and *benefits* of tax complexity, where the benefits include the extent to which complexity aids in achieving other policy goals. Second, the factors that generate complex tax systems—policy trade-offs, politics, and taxpayers’ desire to reduce their own tax burdens—are not features of tax policies per se. They will likely remain in force even if the tax system were reformed or replaced. As a result, an analysis of the extent to which policy changes can affect tax complexity should incorporate these factors. Third, there is an important distinction between private and social gains or costs. Suppose everyone had to fill out five extra lines of the tax form to receive a \$1,000 tax cut. Each person might regard that as “good complexity,” worth the cost of providing extra information. But, holding tax revenues constant, the revenue would still have to be raised from somewhere, so the net tax cut would be zero—that is, everyone’s tax “cut” would be from a higher initial tax liability and net taxes would be the same. Thus, from a social perspective, the sum of all individuals’ “good complexity” could be zero or negative.

B. Evasion

Tax evasion is simply the act of not paying taxes that ought to be paid. Evasion can be deliberate, when people choose not to report income or pay taxes due. It can also be unintentional, when people make mistakes in filing their taxes. In either case, evasion erodes tax revenues, and therefore requires higher tax rates to raise a fixed amount of revenue. Thus,

evasion raises effective tax rates and burdens on taxpayers who comply with the system.

Like complexity, the extent of evasion is influenced by administrative and structural features of the tax code.⁵ Withholding of taxes by third parties, such as employers currently do on behalf of employees, appears to reduce the evasion rate. In the absence of withholding, reporting of information by third parties to the government, such as firms currently do when they pay dividends, is associated with lower evasion rates. IRS enforcement actions may deter taxpayers from cheating on an *ex ante* basis, and often root out evasion on an *ex post* basis. Structural features of the tax system also affect evasion. For example, higher tax rates increase the marginal payoff to the taxpayer from evasion. But they also reduce taxpayers' income and may make them more reluctant to cheat. The net effect is ambiguous, but the weight of available evidence suggests that lower tax rates reduce evasion rates (Alm, Jackson, and McKee 1992, Andreoni, Erard and Feinstein 1998, Clotfelter 1983, Feinstein 1991, Slemrod and Bakija 1996).

As noted above, existing tax systems do not routinely achieve the minimum possible level of complexity. For similar reasons, they also typically do not achieve evasion rates of zero. For example, there are trade-offs involved in raising compliance rates. Some efforts to reduce evasion—such as increasing the number and intensity of audits—raise the level of intrusiveness of taxes in people's everyday lives. Other policies that reduce evasion—such as increasing reporting requirements—make taxes more complex. In addition, policy choices that generate more complexity may also raise evasion. Simpler tax systems are easier to comply with, and taxpayers may be more prone to make errors when they do not fully understand the rules.

⁵Excellent discussions of the determinants of evasion may be found in Andreoni, Erard, and Feinstein (1998) and Slemrod and Bakija (1996).

II. Administrative Issues in the Income Tax

The current tax system raises many administrative issues. Critics claim the system is bewilderingly complex, noting that the Internal Revenue Code and the regulations that interpret the code span thousands of pages and millions of words. Critics also argue that evasion rates are too high, and that the IRS has been reckless, if not abusive, in its enforcement of the law. All of these charges, however, are controversial. Most households face relatively simple tax situations, so that the implications of a lengthy legal code are not clear. The level of evasion and the behavior of the IRS raise several difficult issues. In this section, we examine complexity, evasion, and tax administration in the current tax system, focusing mainly on the income tax.

A. Complexity

The complexity, or total resource costs, of the current tax system can be divided into several components: the amount of time it takes individuals and businesses to comply with the tax system, the valuation of that time, the out-of-pocket costs incurred by taxpayers, and the administrative costs borne by government.

Three surveys, conducted during the 1980s and described in table 1, provide data on the time taxpayers needed to comply with federal taxes. Slemrod and Sorum (1984) surveyed 2,000 taxpayers in Minnesota in 1983. Weighting the responses to reflect national averages, they estimated that taxpayers spent 2.1 billion hours filling out their 1982 federal and state income tax returns. Blumenthal and Slemrod (1992) repeated the survey in 1990 and found that time requirements for 1989 returns had increased to 3.0 billion hours. Unlike the earlier survey, the latter survey's estimates include time spent arranging financial affairs to minimize taxes.

The largest survey, commissioned by the IRS and conducted by Arthur D. Little (ADL, 1988), asked 6,200 taxpayers by mail about time spent preparing 1983 federal income tax

returns. ADL also surveyed 4,000 partnerships and corporations and their paid preparers. ADL used the results to develop models that could be used with readily available data to estimate compliance costs in future years. To develop the models, the time for each activity (e.g., learning about tax law) associated with each form was assumed to be a linear function of the number of items on the form, the number of words of instructions and references to the IRC and regulations, or the number of pages in the form. Based on these models, ADL estimated that taxpayers spent 1.6 billion hours on 1983 individual income tax returns and 1.8 billion hours on 1985 returns. For partnerships and corporations, the estimates were 2.7 billion hours for 1983, and 3.6 billion hours for 1985.

The IRS currently uses the ADL models to estimate the time required to complete forms and schedules. These estimates are published with the tax forms as part of the "Paperwork Reduction Act Notice." For FY 1997, OMB (1998) estimates that taxpayers needed 5.3 billion hours to comply with the requirements of all tax forms and IRS regulations. This estimate applies to businesses and individuals, and includes all federal taxes, not just income taxes.

Several features of the ADL/IRS model are problematic, however. Most obviously, complexity can be related to many factors other than the number of lines or words on a form. When complexity is related to the length of instructions on the form, the ADL model may get the sign wrong. For example, if instructions were moved off of a form and into a separate publication, the ADL model would show compliance costs falling when the change may well have actually increased compliance costs. Another set of concerns focuses on the business model (Slemrod 1996). The model does not adjust its cost estimate for the scale of the business. Inexplicably, it overstates survey estimates of hours by partnerships, corporations and their preparers by a factor of four or more. And the ADL study may not be very representative; it only

includes one corporation with assets in excess of \$250 million, and only 9 with assets over \$10 million.

Given an estimate of the number of hours individuals and businesses spend complying with the tax system, the next component of compliance cost requires placing a value on taxpayers' time. The surveys above did not inquire about this issue. Instead, analysts have generally imputed some measure of opportunity cost to individuals. Different methodologies result in widely varying estimates of the value of taxpayers' time (table 2). Vaillancourt (1986) uses the taxpayer's pre-tax wage, on the grounds that this is the cost to society. Slemrod (1996) argues that taxpayers are more likely to forgo leisure than work to complete a tax return, and so uses after-tax wages. Payne (1993) and Hall (1995, 1996) value individual and business taxpayers' time by averaging the hourly labor costs of one of the major accounting firms and the IRS. This approach undoubtedly overstates the appropriate costs for individual taxpayers. The implicit assumption that a taxpayer and tax professional operate at the same level of efficiency when completing a tax return is doubtful, and ignores the expertise the tax professional has developed. And the vast majority of taxpayers do not face tax situations anywhere near as complicated as those seen by an accountant at a major firm or an IRS examiner.

Estimates of the total resource costs of operating the income tax vary widely (table 2). Payne (1993) estimates costs of \$277 billion (1995 dollars) for 1985.⁶ Hall (1995, 1996) estimates costs of about \$141 billion in 1995. Slemrod (1996) estimates costs of \$75 billion in 1995. The differences between these estimates are driven largely by two factors: whether to use the results from the ADL business model or the business survey, and how to value the time spent

⁶Payne calculates a total cost of \$514 billion, but about \$237 billion is primarily attributable to "disincentives to production," or the excess burden caused by distortions in relative prices. These costs are generally not included in compliance estimates.

by businesses and individuals. Both Payne and Hall use the results from the ADL model, which appears to overstate the relevant costs. Slemrod uses the results from the survey. Both Hall and Payne value taxpayer time at the cost of tax professionals' time, which is problematic for reasons stated above. Slemrod values taxpayers' time at the after-tax wage.

Given the existing data, it is possible to suggest a range of plausible estimates of the annual costs of operating the income tax. Slemrod's \$75 billion estimate provides a realistic lower bound. An upper-bound estimate of \$130 billion is obtained by adjusting Hall's estimate for the value of time (using Slemrod's estimate of \$15 an hour rather than Hall's estimate of \$39.60), and adding individuals' out-of-pocket expenditures (\$8 billion that Slemrod and Payne include) and tax administrative costs (\$5 to \$7 billion).

All of these estimates are based on taxpayer surveys. However, although they may provide the best available information to date, the survey results should be interpreted with caution. All of the surveys have low response rates. They do not distinguish between permanent and transitory costs. The surveys omit compliance costs imposed on taxpayers after returns are filed (except for Payne, who provides only a rough estimate of audit costs). It is unclear whether survey respondents have netted out the cost of non-tax activities, or distinguished the costs of one tax from other taxes. In addition, the surveys were undertaken in the 1980s and are now dated. Several major and minor tax bills have become law over the last 15 to 20 years. It is not evident that the IRS methodology captures these changes. Over the same period, technological change has generally worked to reduce compliance costs. For example, when the IRS initiated the first pilot of electronic filing in 1986, a handful of professional tax preparers electronically transmitted 25,000 returns. By 2000, over 35 million taxpayers filed electronically. In many cases, they filed from home by telephone or personal computer. The cost savings from electronic

filing are not reflected in the compliance cost estimates.⁷ All of these considerations suggest the need for a new, comprehensive survey of taxpayer compliance costs.

1. The incidence of complexity Measures of resource costs indicate the total administrative burden of taxes, but provide no information about which taxpayers bear the biggest burdens. Just as the distribution of tax payments is central to policy discussions, the distribution of the burden of tax complexity is also worth considering.

For most taxpayers, direct contact with the income tax is relatively simple. In 1998, 17 percent of taxpayers filed the 1040EZ, a very simplified version of the standard 1040 form.⁸ An additional 21 percent of taxpayers filed the 1040A. Relative to the 1040EZ, the 1040A requires more information and contains several more complicated provisions, but it is still fairly simple.⁹ The remaining taxpayers filed the standard 1040 form. About 8 percent of taxpayers filed the 1040 but were eligible to file a 1040A or 1040EZ. An additional 6 percent did not itemize their deductions, did not claim capital gains or losses, and did not have business income (defined to include business net income or loss, rents, royalties, farm net income, farm rental income,

⁷The IRS web site, launched in 1996, enables taxpayers to download forms and publications and registered 968 million "hits" during the 2000 filing season.

⁸To be eligible for the 1040EZ, taxpayers must be single or married filing jointly, have taxable income below \$50,000, have income only from wages, salaries, tips, taxable scholarships, unemployment compensation, and interest, with taxable interest income below \$400. Filers of the 1040EZ can claim personal exemptions, the standard deduction and the earned income tax credit (EITC) for workers who do not reside with children.

⁹To qualify for the 1040A, taxpayers' income must come from only from wages, taxable scholarships, pensions, IRAs, unemployment compensation, social security, interest and dividends. Taxpayers may report IRA contributions, student loan interest deductions, personal exemptions, the standard deduction, the EITC, the child tax credit, the child and dependent care tax credit, education tax credits, and the credit for the elderly and disabled, and exemptions for the elderly and blind. Taxable income must be below \$50,000. Some of the issues arising for 1040A filers include head of household filing status, dependency rules, child-related credits, and in rare cases the AMT.

partnerships, S-corporations, estates and trusts). The figures above show that in 1998, over half of taxpayers either filed a simplified form or filed the 1040 but did not itemize deductions, have business income or report net capital gains. Thus, for most taxpayers, filling out an income tax form is relatively straightforward.

Survey estimates support these findings. Blumenthal and Slemrod (1992) found that, while the average taxpayer reported spending 27.4 hours on filing income tax returns and related activities, 30 percent spent less than 5 hours, and 15 percent spent between 5 and 10 hours. At the high end, 11 percent spent 50-100 hours and 5 percent spent more than 100 hours. Out-of-pocket costs averaged \$66 (in 1989 dollars), but 49 percent of filers had no such costs and another 17 percent had costs below \$50. Slightly over 7 percent spent more than \$200. Expenditures of time and money were highest among high-income and self-employed taxpayers.

Information on the use of paid preparers may provide additional evidence on how complex individuals find the system to be. In 1998, 53 percent of tax filers used paid preparers. Among those who filed the 1040, 64 percent used preparers. Even among 1040A and 1040EZ filers, 35 percent used preparers. At first glance, these figures suggest that most taxpayers do not believe they have simple tax situations. However, it is not entirely clear how to interpret the figures. Some individuals use preparers to obtain quicker refunds through electronic filing. Also, with relatively high income and often little leisure, many families pay others to clean their homes, plan their retirement nest egg, etc.; that they have turned to professional tax preparers as well may not provide any evidence about complexity.

2. Complexity and corporate taxes The factors most likely to create high compliance costs for large corporations include depreciation rules, the measurement and taxation of international income, the corporate alternative minimum tax, and co-ordinating federal and state

income taxes (Slemrod and Blumenthal, 1996). In addition, the largest firms are almost continually audited, and final resolution of corporation tax returns can stretch over several years. Nevertheless, the magnitude of compliance costs and the impact of tax complexity on firm operations is controversial.

At one end of the spectrum, company representatives have testified in Congress that it cost Mobil \$10 million in 1993 to prepare its U.S. tax return, which comprised a year's worth of work for 57 people. These costs sound astonishingly high at first glance, but closer examination suggests otherwise. In 1993, Mobil operated in over 100 countries and had world wide revenues of \$65 billion and profits of about \$4 billion. Mobil's revenues exceeded the GDP of 137 countries and 22 of the states in the United States. Mobil's self-reported costs of compliance were about 0.015 percent of revenues and 0.25 percent of profits. Viewed in this context, the burden imposed by compliance with the U.S. income tax appears relatively small.¹⁰

In contrast, a recent study of the Hewlett-Packard corporation concluded that "[a] large U.S. multinational company can complete an accurate corporate tax return with the functional equivalent of three full-time tax professionals" (Seltzer 1997, p. 493). It would be interesting to know why Mobil's return required so many more resources than Hewlett-Packard's. To the extent that the problem lies in the tax system, it would be useful to know which features caused the problems.

B. Evasion

One measure of evasion is the "tax gap," the difference between taxes that should have been paid on income earned in legal activities and taxes that were paid on that income in a

¹⁰In the same year, Mobil paid \$19 million in U.S. income taxes and its total world-wide tax burden was \$1.931 billion.

voluntary and timely manner. The tax gap does not include revenues lost to the underground economy. IRS estimates of the tax gap stem from audits in the Taxpayer Compliance Measurement Program (TCMP). The TCMP randomly selects taxpayers for audit. The most recent TCMP was conducted in 1988.

Based on the 1988 TCMP, the IRS (1996) estimates the tax gap in the individual income tax in 1992 was between \$93 billion and \$95 billion. This represents 17 percent of potential individual income tax liability, and 20 percent of actual revenue collected. About 61 percent of the gap is due to underreported income, 15 percent is due to overstated deductions and credits, and 14 percent comes from taxpayers who do not file returns but who should have. The rest comes from underpayment of tax liabilities that were correctly reported. The overall tax gap, including the corporate tax, was \$128 billion, or 18 percent of potential revenues from the corporate and individual income taxes (Willis 1997; GAO, 1998).

Evasion rates vary considerably by type of income. Compliance is highest for income subject to withholding by a third party. For example, employers subtract taxes from employees' paychecks and send the funds directly to government. As shown in Table 3, 99 percent of wage income earned by filers was reported to the IRS in 1992. Compliance rates are lower for income that does not have taxes withheld, but that is reported separately to the IRS by a third party when payments are made. The underreporting rate is about 2 percent for interest income and between 4 and 8 percent for social security benefits, dividends, pensions, capital gains, and unemployment insurance. Compliance rates are lowest for income that does not have taxes withheld and is not reported separately to the IRS. About 30 percent of income from farms and non-farm proprietors (i.e, small business) goes unreported. In the informal supplier sector (for example, baby sitters and flea markets), underreporting exceeds 80 percent.

These results suggest that there are currently two enforcement tiers. For taxpayers who receive most of their income from wages, the IRS is able to match virtually all returns to wages reported by the employer and verify the existence of their dependents by checking social security numbers. In contrast, individuals with significant income from sole proprietorships or farms have much greater opportunities to evade taxes.

C. Administering the Tax System: The Internal Revenue Service

Popularity may not be possible for an organization such as the Internal Revenue Service that is charged with making sure that people regularly surrender a sizable fraction of their incomes. But at least grudging acceptance of the IRS's legitimacy is essential because effective tax collection is possible only if the vast majority of citizens voluntarily comply with the laws. To achieve and sustain such compliance, filers must feel they are paying taxes for a government they fundamentally support under a tax system that is perceived as fair and efficient. That sense of justice and efficiency requires that the IRS have the capacity to detect abuse and enforce the tax laws without needlessly harassing honest filers.

In recent years, an external commission and congressional investigations have revealed several shortcomings in IRS administration that call justice and efficiency into question. In Congressional hearings, taxpayers accused the IRS of abusive behavior, while IRS employees charged the agency with treating taxpayers unfairly. Complaints were also heard regarding the lack of long-term planning (due in part to the short tenure of IRS commissioners) and poor customer service (arising from inadequate training and supervision and insufficient use of computer technology).

The IRS Reform and Restructuring Act of 1998 instituted various corrective measures to address these problems. The law gave the commissioner of the IRS, its chief executive, a fixed

five year term, and broadened the commissioner's powers to replace top management. It established an external supervisory board, consisting of public and private members, to oversee the work of the IRS. It extended a Taxpayer Bill of Rights that proscribes revenue quotas for auditors, limits the authority of the IRS to seize property, and protects people from being held responsible for the tax liabilities of former spouses.

Given all of the complaints, some important facts regarding the IRS tend to be downplayed. First, enforcement activities bring in a substantial amount of revenue. The IRS estimates that it raised \$14.9 billion through enforcement actions on TY 1992 individual income tax returns. By way of comparison, the entire IRS budget in FY 1993 was \$7.1 billion, of which only \$3.8 billion was spent on tax law enforcement. Second, although audits are discussed frequently and are clearly a concern of many taxpayers, fewer than two percent of individual tax returns and fewer than three percent of corporate returns are audited. The proportion of returns that are audited has fallen over time, in part because the IRS has become more efficient at choosing returns for audit. In the 1960s, the IRS did not make any tax changes on more than 40 percent of audited returns; since then, the "no change" rate has fallen to between 10 and 15 percent. Finally, GAO (1999) found no evidence to support some of the most egregious charges of unfair treatment of taxpayers made during the Congressional hearings.

The continuing reform of the IRS raises fundamental and difficult questions about the proper managerial stance for the nation's revenue agency. Abusive practices create public anger and can erode voluntary compliance. But so too can administrative laxity that permits people to cheat with impunity. If the IRS is unduly draconian, it courts the first risk. Procedural hurdles that prevent it from aggressively pursuing evaders raise the second risk. Although there can be no doubt that the IRS needed administrative modernization and that taxpayer rights must be

protected, recent legislation will need careful monitoring to ensure that the agency retains the power to do an inherently unpopular job.

D. Modifying the existing tax system

Besides the IRS reforms discussed above, modifications to the structure and administration of the existing tax system could have significant effects on complexity and evasion rates. For example, broadening the base by eliminating targeted preferences and taxing capital gains as ordinary income directly removes major sources of complexity. Using the revenue raised to increase standard deductions removes people from the tax system, and using the revenue to reduce tax rates reduces the value of sheltering and cheating. Increasing the number of people that face the same “basic” rate facilitates withholding of taxes at the source, which further simplifies taxes and raises compliance. In short, broadening the base and reducing the rates, which in general may be considered efficiency-enhancing, would also simplify taxes (see Pechman 1990, Slemrod 1996, Slemrod and Bakija 1996, Gale 1997, 1998b).

Slemrod (1996) refers to such plans as “populist simplification.” That is, they make taxes simpler for a large number of taxpayers, but the overall saving in compliance costs may not be very large. He estimates that simplification could reduce individual and business compliance costs by 15 and 5 percent, respectively. If so, the cost saving would be about \$8.5 billion, compared to his \$75 billion estimate of overall resource costs.

Not all structural reforms, of course, have the same impact on compliance costs. Slemrod (1989b) found no significant saving from changing to a single-rate tax structure. In contrast, eliminating the system of itemized deductions would result in a substantial reduction in expenditures on professional assistance; the impact on total compliance costs, though, varied depending on the model used.

Notably, proposals that simplify the tax system as noted above would likely raise compliance rates as well. The combination of lower rates, less variation in rates across sources and uses of income, and increased withholding, which would be facilitated by a flatter rate structure, could reduce both intentional and unintentional tax evasion.

Another strategy for reform is to focus on reducing filing burdens. Thirty-six countries use some form of a return-free system for at least some of their taxpayers (GAO, 1996). In these countries, an end-of-year filing requirement was replaced with greater reliance on withholding throughout the year and end-of-year reconciliation by the tax agency. Gale and Holtzblatt (1997) found that 52 million U.S. taxpayers could be placed on a return-free system with relatively minor changes in the structure of the income tax. These include taxpayers that have income only from wages, pensions, social security, interest, dividends and unemployment compensation, do not take itemized deductions or credits other than the child tax credit and EITC, and are in the zero or 15 percent tax bracket.

Nevertheless, the net cost savings may not be great. Over 80 percent of the affected taxpayers currently file the relatively simple 1040A and 1040EZ returns and the others file 1040s but have relatively simple returns. Taxpayers subject to a return-free system would still have to provide information to tax authorities on a regular basis. Some administrative costs would merely be shifted from taxpayers to employers, other payers, and the IRS. And if state income taxes were not similarly altered, many taxpayers would still need to calculate almost all of the information currently needed on the federal return.¹¹

¹¹Another option is to subsidize electronic filing (Steuerle 1997). Electronic filing may help reduce error rates because returns are often prepared using computer software programs with built-in accuracy checks, and it prevents key punch errors that could otherwise occur at the IRS. The IRS restructuring act establishes a goal that 80 percent of tax returns should be filed electronically by 2007. In February 2000, the Clinton Administration proposed a temporary refundable credit for electronic filing of individual

Lastly, procedural changes in the tax policy process might indirectly help to simplify taxes by raising the visibility and explicit consideration of simplicity and enforcement issues. For example, the recent IRS restructuring legislation requires the IRS to report to Congress each year regarding sources of complexity in the administration of Federal taxes. The Joint Committee on Taxation (JCT) is required to prepare complexity analysis of new legislation that impacts individuals or small businesses. Another way to increase the visibility of simplification issues is for the Treasury or a Congressional agency to release an annual list of simplification proposals. A Treasury "blue book" released in 1997 contained over 50 proposals for simplification, two of which were enacted later that year. The IRS restructuring act requires the JCT to include simplification proposals in biennial reports on the state of the Federal tax system.

III. Administrative issues in the national retail sales tax

A national retail sales tax has been proposed recently by Congressmen Dan Schaefer (R-CO) and Billy Tauzin (R-LA) and by a group called Americans for Fair Taxation (AFT).¹² The sales tax base would include almost all goods or services purchased in the United States by households for consumption purposes. The imputed value of financial intermediation services would also be taxed.¹³ To tax households' consumption of goods and services provided by government, all federal, state, and local government outlays would be subject to federal sales tax. The tax would exempt expenditures abroad, half of foreign travel expenditures by U.S. citizens, state sales tax, college tuition (on the grounds that it is an investment), and food produced and

income tax returns to help achieve this goal. The proposal was not enacted in 2000.

¹²See H.R. 2001, "The National Retail Sales Tax Act of 1997."

¹³For example, households purchase banking services through reduced interest rates on their checking account, and the value of these implicit payments would be included in the tax base.

consumed on farms (for administrative reasons).¹⁴

The sales tax would provide a demogrant to each household equal to the sales tax rate times the poverty guideline, the annual income level below which a family of a given size is considered in poverty. States would collect the sales tax, and businesses and states would be reimbursed for tax collection efforts. The IRS would monitor tax collection for businesses with retail sales in numerous states.

The required tax rate in a national retail sales tax merits attention. Tax rates can be described in two ways. For example, suppose a good costs \$100, not including taxes, and there is a \$30 sales tax placed on the item. The "tax-exclusive" rate is 30 percent, since the tax is 30 percent of the selling price, excluding the tax. This rate is calculated as T/P , where T is the total tax payment and P is the pre-sales-tax price. The "tax-inclusive" rate would be about 23 percent, since the tax is 23 percent of the total payment, including the tax. This rate is calculated as $T/(P+T)$. Sales taxes are typically quoted in tax-exclusive rates; this corresponds to the percentage "mark-up" at the cash register. Income taxes, however, are typically quoted at tax-inclusive rates. The reported tax-inclusive rate will always be lower than the tax-exclusive rate and the difference rises as tax rates rise.

The AFT proposal assumes a 23 percent tax-inclusive rate (30 percent tax-exclusive). The Schaefer-Tauzin proposal assumes a 15 percent tax-inclusive rate (17.6 percent tax-exclusive). The difference in rates in the two proposals is due to the different taxes slated for abolition. Both proposals would abolish taxes on individual income, corporate income and estates. The AFT would also eliminate payroll taxes, which raise considerable sums currently,

¹⁴Retail sales occur when a business sells to a household. Thus, purchases of newly constructed housing by owner-occupants would be taxable, but resales of existing homes would not be.

while the Schaefer-Tauzin proposal would eliminate excise taxes, which raise little revenue.

The actual required rates would be much higher, however, for several reasons (Gale 1999). First, the plans stipulate that government must pay sales tax to itself on its own purchases but fail to allow for an increase in the real cost of maintaining government services. Fixing this problem alone raises the required rate in the AFT proposal to 35 percent on a tax-inclusive basis and 54 percent on a tax-exclusive basis (table 4). Second, the plans do not allow for any avoidance or evasion, though it is universally acknowledged that both will occur. Third, the plans propose to tax an extremely broad measure of consumption, but political and administrative factors would very likely require a narrower base. Conservative adjustments for these factors raise the required tax-inclusive rate to 48 percent and the tax-exclusive rate to 94 percent in the AFT proposal, and 35 percent and 54 percent, respectively, in the Schaefer-Tauzin proposal (table 4).

The remainder of this section examines tax complexity, evasion and tax administration in the context of a high-rate national retail sales tax. We find that complexity would not be an overwhelming problem in the NRST, but the ability to administer and enforce the tax may prove quite difficult.

A. Complexity

As a flat-rate consumption tax with a universal demogrant, the sales tax contains many of the features that generate simpler taxes. In principle at least, the simplicity gains could be impressive. Most individuals would no longer need to keep tax records, know the tax law, or file returns. The number of taxpayers who would have to file would decline significantly, and would include only those sole proprietorships, partnerships, and S- and C-corporations that made retail sales. The complexity of filing a return would decline dramatically as well.

Nevertheless, a NRST could create new areas of complexity. The demogrant is based on the HHS poverty guidelines, which rise less than proportionally with the number of family members. For example, in 1998, the poverty level was \$8,050 for a single individual, plus \$2,800 for each additional family member. Thus, the poverty level for a family of four was \$16,450, just over twice the level for an individual. This structure will create incentives in many households for citizens to try to claim the demogrant as individuals rather than families. It is also not obvious from AFT descriptions how the demogrants would be administered, or even which agencies would be responsible for determining eligibility and monitoring taxpayers. Thus, the compliance and administrative costs of ensuring that the appropriate demogrant is paid could be significant.

Another area of potential complexity stems from tax avoidance and evasion behavior. The primary way to avoid sales taxes would be to combine business activity with personal consumption. For example, individuals may seek to register as firms, individuals may seek to purchase their own consumption goods using a business certificate, and employers might buy goods for their workers in lieu of wage compensation (GAO 1998). Ensuring that all business purchases are not taxed and all consumer purchases are taxed would require record-keeping by all businesses, even though only retailers would have to remit taxes in a pure retail sales tax. The AFT proposal deviates from a pure retail sales tax by requiring that taxes be paid on many input purchases and that vendors file explicit claims to receive rebates on their business purchases. This would raise compliance costs further.

A second source of tax avoidance and evasion concerns the importation of goods and services from abroad. Imported purchases of up to \$2,000 per year per taxpayer would be exempt from the sales tax. This feature is likely to be exploited fully by many taxpayers, not

because they travel abroad but because it would be very simple for firms to set up off-shore affiliates, warehouses, or mail order houses and ship goods to domestic customers. Moreover, it would be very difficult to monitor such arrangements and it seems quite likely that taxpayers could end up importing more than \$2,000 per person on a tax-exempt basis. Some related evidence on the potential extent of these problems comes from the experience with state-level “use” taxes under which taxpayers voluntarily make tax payments on goods purchased in other states. Enforcement of such taxes has been “dismal at best” (Murray, 1997). The development of electronic commerce could raise many additional avoidance and evasion problems for the sales tax.

There are no rigorous estimates of the compliance and administrative costs associated with a high-rate NRST. Some evidence is available with respect to state sales taxes. Slemrod and Bakija (1996) report that administrative costs were between 0.4 and 1.0 percent of sales tax revenues in a sample of 8 states, and compliance costs were between 2.0-3.8 percent of revenues in 7 states. Hall (1995) cites a Price-Waterhouse study that found that retailers spent \$4.4 billion complying with state retail sales taxes in 1990. Adjusting for increased retail sales between 1990 and 1995, he asserts an NRST with no demogrant would have administrative costs of \$4.9 billion.¹⁵

Unfortunately, as Slemrod and Bakija (1996) note, compliance cost estimates from state sales taxes are likely to vastly understate the analogous costs in a NRST for several reasons.

¹⁵Adopting IRS time estimates of the costs of completing the schedules for interest and dividends, the child and dependent care tax credit, and the EITC, Hall estimates that adding a demogrant would cost \$6.3 billion and thus raise the total cost to \$11.2 billion. Hall (1996) estimated that taxpayers would spend \$8.2 billion to comply with the Schaefer-Tauzin NRST. The estimate was also based on experience with state sales taxes. It does not include the compliance costs of payroll tax credits, used in the Schaefer-Tauzin plan, to rebate sales taxes.

First, at 4 and 6 percent, state sales tax rates are an order of magnitude lower than the required rate in a NRST (table 4). The higher rates in an NRST would encourage more taxpayers to engage in time-consuming taxpayer avoidance and evasion activities than under the existing state sales taxes, and this, in turn, would increase the required tax rate and compliance and administrative costs. Second, state sales tax bases are very different from the proposed federal base. States sales taxes typically include a significant amount of business purchases (Ring 1999). This reduces compliance costs, since distinguishing business and retail sales is costly. To avoid taxing business in a NRST may require all businesses to file returns and receive rebates, which would raise costs. State sales taxes often exclude hard-to-tax sectors. All states exempt financial services from their retail sales taxes, but the NRST would not. Third, states do not provide demogrants.

On the other hand, states often exempt from taxation goods such as food, housing, rent, and health care, for political or social reasons. This increases compliance costs relative to taxing a broader base because defining the boundaries of the exemption (for example, distinguishing “food” and “candy”) can be difficult, and record keeping requirements can be extensive. However, if a NRST required high rates, there would be massive political pressure to exempt goods like food, health care, and rent.

B. Evasion

Because the sales tax offers such drastic changes in the structure and administration of taxes, it could influence evasion in a number of different ways.

1. Rates of evasion on legally generated income Several aspects of the sales tax would affect evasion rates relative to the current system. Simpler tax forms would reduce unintentional evasion. But any realistic formulation of the federal sales tax rate that holds the real size of

government constant would be high compared to the 35 percent corporate income tax rate faced by larger corporations and the 39.6 percent tax rate that faced by high-income sole proprietors (table 4). Many corporations and sole proprietors, of course, face even lower rates in the current system. Higher marginal tax rates increase the return to cheating and so plausibly would increase intentional evasion under the sales tax relative to the existing system.

As noted above, another important determinant of evasion is whether anyone other than the taxpayer withholds taxes or reports the tax liability to the government. Under the current system, the vast majority of income and payroll taxes are collected via third-party withholding and reporting to the government, and feature extremely high compliance rates. Evasion rates on sole proprietorship income are much higher. The retail sales tax would be collected only from businesses that make retail sales, and there would be no withholding or reporting by anyone other than the business itself. That is, the entity reporting the tax payment would also be the entity legally responsible for the tax liability. This suggests that the possibility of high rates of evasion needs to be taken quite seriously. In addition, the parties that would be responsible for remitting taxes under a NRST have average or higher than average evasion rates under the existing system (table 3).

Moreover, rates of 35 percent or more would make it very attractive to evade the NRST. Those with business certificates would have considerable incentive and opportunity to use them for nonexempt purchases. As a consequence, the tax system would need high audit rates and more information collected on the identity of the buyer of exempt goods. The lack of third-party withholding will also make it difficult to collect high-rate sales taxes from a number of small-scale service industries--taxi cab drivers, plumbers, handy men, painters, maids, etc. are classic examples. Another potential concern is the possibility of many small tax-evading retailers, who

are able to set up businesses (possibly off-shore, but on the internet) with low overheads, and are effectively created by the prospect of being able to undercut legitimate retailers by 35 percent or more.

The precipitous decline in the number of filers under a NRST compared to the current system could also affect evasion. With fewer filers, and the same number of audits, each taxpayer faces a higher probability of audit and therefore is more likely to comply with the tax code. However, several factors would tend to offset this effect. First, in the sales tax (as in the current system), *all* businesses would potentially be subject to audit, not just retailers, to ensure proper use of business certificates. Second, under the sales tax, businesses would likely file monthly, which would vastly increase the number of returns filed, and would offset much of the gains from having fewer taxpayers. Third, audits at the firm level are probably more labor-intensive than audits for most individuals, so the number of business audits that could be performed would be smaller than the number of individual audits. Lastly, audits in the income tax appear to be well-targeted; 85 percent or more of audits result in changes in tax payments. Audits of sales tax returns are likely to be less well-targeted.¹⁶ We conjecture that these four factors would offset much or all of the compliance gains that derive from having fewer tax filers under the NRST than under the existing system.

¹⁶Income tax audits are well-targeted in part because the IRS has become very efficient, with the use of administrative data and TCMP findings, in identifying questionable returns for further investigation. Under existing state sales taxes, the states with the best audit programs seem to rely heavily on cross-checking with income tax returns or using past compliance record data for the firm or industry (Due and Mikesell 1994). If the U.S. replaced the income tax with a sales tax, the former source of information would disappear; and at least initially, there would not be much experience at the national level with the much higher-rate and broader-based NRST to identify firms or industries with potentially bad compliance records. On the other hand, publicly available financial information may be of some use to authorities as a cross-check.

2. The underground economy Sales tax advocates often claim the NRST would be more effective than the current system at raising revenue from the underground economy. The classic example is that of a drug dealer who currently does not pay income tax on the money he earns, but would be forced to pay sales taxes under an NRST if he took the funds and bought, for example, a Mercedes. The problem with this argument is laid out by Representative Richard Armev (1995). “If there is an income tax in place, he [the drug dealer] won't report his income. If there is a sales tax in place, he won't collect taxes from his customers” and send the taxes to government. In the end, to a first-order approximation, neither system taxes the drug trade.¹⁷

3. Estimates of the overall evasion rate Unfortunately, no reliable estimates of evasion rates exist for high-rate national sales taxes. Evasion does not appear to be a huge problem in existing state sales taxes. A study by the state of Florida estimated that about 5 percent of tax-free business purchases involved abuse or misuse of business exemption certificates, based on a sample limited to selected business sectors. GAO (1998) found that audit assessments accounted for between one and three percent of sales tax revenues in about 22 states in 1992. Mikesell (1997, p. 150) writes that “few believe [state-level] sales tax compliance rates to be a severe problem, although that belief stems more from faith rather than from research.”

There is little reason, however, to believe that evasion rates in state sales taxes are a useful guide to evasion in a national sales tax. The most obvious difference between the state taxes and a hypothetical national sales tax is that the latter would require substantially higher tax rates. In addition, states currently piggyback on federal enforcement efforts, which are in turn aided by the existence of an income tax with its various reporting requirements. These would

¹⁷ Some additional effects, though, may complicate the analysis. For example, the effective tax rate on drug dealers and their customers may differ, and the drugs may be purchased with income generated illegally.

vanish if the income tax were abolished.

C. Administration

Under the AFT plan, states would administer the federal sales tax and the IRS, or some national tax agency, would only be involved in collecting taxes from firms that operate in many states. However, although many states already have sales taxes, it seems extremely unlikely that states would be in a good position to administer and enforce a federal sales tax. Five states currently do not have state sales taxes and so would need to develop an entirely new tax apparatus. In addition, existing state sales tax do not conform with each other and fall far short of the ideals laid out in the AFT plan. Although the AFT would allow states to keep one percent of the revenue they remit to the federal government, states would still have very weak incentives to collect federal taxes other than those that flowed in due to voluntary compliance. This problem would be reduced to the extent that states conformed their sales taxes to the federal base, so that they would collect state sales taxes on any additional sales found during audits for federal taxes. Even in this case, however, it would be an interesting issue to determine whether state or federal authorities would be responsible if federal revenues went uncollected. Finally, states differ considerably in their audit coverage and technical support of audit staff. This would seem to raise problems of tax equity in a federal system.

D. Summary and Discussion

It is difficult to predict the resource costs and evasion rates in a high-rate, national retail sales tax because no such tax has ever existed. Our reading of the available evidence, however, is pessimistic. We believe the combination of a required high sales tax rate, coupled with the ability to avoid and evade the tax, and the political pressure to exempt particular goods, will create a vicious cycle of sorts. For example, even assuming there is no avoidance or evasion, and

no shrinkage of the tax base for political or administrative reasons, a NRST would require a tax-inclusive rate of about 35 percent (table 4) to hold the size of government constant. This would correspond to a mark-up at the cash register in excess of 50 percent. These rates would create huge incentives to avoid and evade taxes, and there would be significant opportunities to do so, due to the possibility of importing tax-free from abroad and the lack of third-party withholding. There would also be huge political pressure to exempt certain goods—food, housing, health—which collectively account for a large portion of consumption. The resulting erosion of the tax base—due to avoidance, evasion, and political pressures—would in turn require higher tax rates to meet a given revenue target. This in turn would create more incentives to evade and avoid, and more political pressure to exempt other commodities, which would require higher rates, and so on.

Thus, in our view, it is quite possible that the NRST would prove to be unworkable. This conclusion is by no means extreme relative to previous analysis. Bartlett (1995), Casanegra (1987), McLure (1987), OECD (1998), Slemrod (1996), Tait (1988), and Tanzi (1995) also conclude that retail sales taxes in the 30-40 percent range would be unworkable. Retail sales taxes at higher rates, which table 4 suggests would be required, would be even more difficult to enforce.¹⁸

To address administrative problems and other concerns with the retail sales tax, many countries have employed value-added taxes (VATs). VATs are paid by businesses and impose taxes on all sales, including business-to-business transactions. Each business owes taxes on its sales and receives deductions or credits to account for the taxes it paid on its purchases.

¹⁸ OECD (1998), Tait (1988) and Tanzi (1995) present evidence that the experience of other countries is consistent with this view as well. See also Cnossen (this volume) for additional discussion of the experience in other countries.

Controlling for administrative factors, the net economic effect of a VAT should be the same as an NRST. The key administrative advantage of a VAT over an NRST is that the existence of a paper trail can improve compliance rates. The chief disadvantage is the added compliance costs created. See Cnossen (this volume) for further discussion.

Mieszkowski and Palumbo (1998) describe a “hybrid NRST” which would add the following features to a retail sales tax: (a) taxes would be due on all sales of multi-purpose goods and services used as final consumption goods or business inputs, (b) businesses would file for rebates for the taxes collected on business inputs, and (c) sales taxes would be withheld at pre-retail stages of production and distribution, such that taxes collected at one stage of production and distribution are credited at the next stage.¹⁹ This system would improve compliance relative to the NRST by developing a more extensive paper trail to identify suspicious returns and facilitate tax audits. However, the tax would also be more complex. A system of cross-checks and cross-reporting would be needed to limit fraud. The number of firms required to file would rise much closer to VAT levels than NRST levels. And businesses would file more frequently, perhaps on a bi-weekly or even weekly basis, in order to claim refunds. Mieszkowski and Palumbo concur with those who claim, as we do above, that the compliance experience of state sales tax is not very relevant for formulating cost estimates for a high-rate national sales tax. They note that the compliance costs of a hybrid NRST would likely be “several multiples” of the \$20 billion compliance cost estimates they cite for an NRST. Note that if several equals “four,” the costs of complying with and administering this system would be as high as Slemrod’s estimated costs for the income tax.

¹⁹See also Gillis, Mieszkowski, and Zodrow (1996), and Zodrow 1999).

IV. Administrative issues in the flat tax

Originally developed by Robert Hall and Alvin Rabushka (1983, 1995), the flat tax has been proposed in legislative form by Representative Richard Armev (R-TX) and Senator Richard Shelby (R-AL).²⁰ Under the flat tax, businesses would pay taxes on the difference between gross sales (including business-to-business transactions) and the sum of wages, pension contributions, and purchases from other businesses, including the cost of materials, services, and capital goods. Individuals would pay taxes on their wages and pension disbursements, less exemptions of \$21,400 for a married couple (\$10,700 for single filers) and \$5,000 for each dependent.

Both individuals and businesses would pay the same flat tax rate, estimated by Treasury (1996) to be 20.8 percent (on a tax-inclusive basis). As with the sales tax, realistic versions of the flat tax will require higher rates. Unlike the sales tax, however, the required rate estimate for the flat tax already incorporates evasion and avoidance and does not assume that government tries to raise revenue by taxing itself. The only significant adjustments are for transition relief and the possible retention of some major deductions and credits due to political pressures. Adjusting for those factors, the required rates range between 21 percent and 32 percent (table 5).

In this section, we examine complexity and evasion in the proposed flat tax. With the sales tax, the main concern was the rate of evasion and the eventual administrability of the tax. The flat tax would not change the administration of taxes very much. Instead, the main issue is the potential for the flat tax to become significantly more complex than originally proposed.

A. Complexity

As with the sales tax, the proposed flat tax would change the tax base to consumption, flatten tax rates, eliminate all deductions and credits in the tax code, and vastly simplify tax

²⁰See H.R. 1040 and S. 1040, "Freedom and Fairness Restoration Act of 1997."

compliance. For taxpayers who were not self-employed, the individual filing requirement could probably be eliminated. For those that did have to file, the tax form could be a relatively short postcard with simple calculations. The tax would eliminate individual-level taxation of capital gains, interest and dividends and the individual AMT.

Any well-functioning business already retains records of wages, material costs and investments, so tax filing would impose little additional cost. The flat tax would eliminate the differential treatment of debt versus equity, the uniform capitalization rules, the corporate alternative minimum tax, depreciation schedules, rules regarding defining a capital good versus a current input, depletion allowances, corporate subsidies and credits, the potential to arbitrage across different accounting systems, and a host of other issues. The tax distortions currently caused by inflation would vanish.

Nevertheless, the flat tax would retain some existing sources of complexity and exacerbate others. It would also create entirely new areas of complexity, and the types of complexity it would abolish could easily creep back into the code. We discuss these issues below.

1. The pure flat tax Some areas of the existing tax code are also common to the flat tax and would prove just as difficult as ever. These include rules regarding independent contractors versus employees, qualified dependents, tax withholding for domestic help, home office deductions, taxation of the self-employed, and non-conformity between state and federal taxes. The treatment of travel and food expenses might also cause problems. To the extent they are a cost of doing business, the expenses should be deducted in the flat tax. To the extent they are a fringe benefit, they should not. Making this determination may prove difficult. Graetz (1997) emphasizes the numerous problems in the existing system that would be retained in the flat tax.

A potentially more troubling issue is that, since the flat tax makes different distinctions than the existing system does, the flat tax will create new "pressure points," and so could create a host of *new* compliance and sheltering issues. For example, under the existing income tax, a firm must pay taxes on interest income as well as income from sales of goods. In the business portion of the flat tax, receipts from sales of goods and services are taxable, but interest income is not. This creates an important incentive in transactions between businesses subject to the flat tax and entities not subject to the business tax (households, governments, non-profits, and foreigners): the business would like to label as much cash inflow as possible as "interest income." The other party (not subject to the business tax component of the flat tax) is indifferent to such labeling. The same possibility occurs for cash outflows from businesses. Outflows that are labeled purchases of goods and services or capital investments are deductible, while outflows that are labeled interest payments are not deductible. This creates obvious incentives for businesses to label as "purchases" as much of their cash outflow as possible, and possibly seriously erode the tax base and tax revenues. Thus, while it equates the tax treatment of debt and equity flows, the flat tax creates a new wedge between inflows labeled "sales" and those labeled "interest," and a new wedge between outflows labeled "purchases" and those labeled "interest expense." Concerns that these wedges would be easily manipulated led McLure and Zodrow (1996) to conclude that the business tax "contains unacceptable opportunities for abuse."

Another new area of complexity concerns wages, fringe benefits, and current operating expenses. Under the current system, all are deductible to firms. Under the flat tax, however, fringe benefits are not deductible. Gruber and Poterba (1996) speculate that this wedge could bring back the "company doctor." In the flat tax, a firm's contribution for health insurance would not be deductible, but its payment for in-house doctors, nurses, and medical equipment would be

deductible.

Some flat tax rules will exacerbate existing tax complexities. The sheltering of personal consumption, especially durable goods, through business would become more important due to the more generous deduction for expensing. Conversion of business property to individual use ought to generate taxable income for the business, but would be hard to monitor.

The tax treatment of mixed business and personal use raises a number of issues. A family who rents rooms in its home or has a vacation home must currently follow fairly complex rules for allocating expenses and depreciation between personal and rental use. The flat tax is based on cash flow, however, so it is not clear how such items would be handled. Suppose a taxpayer bought a home in year 1 and in year 5 decided to begin renting a room in the house. What deduction for the cost of the capital good would the homeowner be able to take? The answer should not be “none” since depreciation is a legitimate business expense. Nor should the answer be “expensing” since the flat tax is based on cash flow and the house did not become a business property until year 5, during which there was no house purchase. But any other answer will lead to a potentially complicated new set of rules (or the same rules that currently exist). Also, if a deduction were allowed, then the decision to stop renting the room or the vacation home after a period of time would implicitly convert a business asset to personal use and so should be taxed at the business level under the flat tax (Feld 1995).

Current law imposes limits on how taxes or losses may be allocated among different taxpayers. These provisions regarding consolidated returns, S-corporations, and partnerships stop firms from merging solely for tax purposes. They appear to have no counterpart in the proposed flat tax. However, as Feld (1995, p. 610) notes: “the logical conclusion of unregulated allocation of deductions would allow free transferability of losses. Historically, however, the

outrage against the opportunity by wealthy businesses to purchase exemption from income tax has produced the existing restrictions on the transfer of loss corporations and repeal in 1982 of the finance lease provisions of the 1981 tax act.” It thus seems likely that a complex set of laws would have to be imposed to stop such behavior.

Taxpayers may also create pressure to find ways to transfer income between wages and business income. Under the flat tax, business and wage incomes are recorded on separate forms. Thus, a business loss may be carried forward, but—unlike in the current system—it can not be used to offset current wage income.

The flat tax would create several incentives regarding cross-border flows. Firms would have incentives to engage in transactions that shifted interest expense offshore and interest income into the United States. Transfer pricing would probably work to encourage firms to locate more profits in the United States, since the tax rate would be lower here than in most other industrialized countries. Both of these issues would be easy to exploit and would drain revenues from foreign countries. Some sort of retaliation, adjustment or treaty negotiation might be expected, which would then require changes in the tax treatment of international flows under the flat tax (Hines 1996).

Feld (1995) highlights a variety of additional concerns with the business tax, including the role of in-kind transfers to a corporation, the definition of a business input (and the possible need to exempt passive assets from the definition), and possibly complex rules for hedging transactions to distinguish those that are part of the business from those that are investments by the individual.

Despite its apparent simplicity, the individual tax also creates some potential areas of complexity (Feld, 1995). First, the flat tax would effectively renegotiate every alimony

agreement in the country. Under the flat tax and other reform proposals, alimony payments would no longer be deductible and alimony receipts would no longer be taxable. Second, suppose that Victim earns money and then Robber takes it away. Under the flat tax, Victim is still liable for taxes, and Robber is not. Under the income tax, it is the other way around. Third, prize money won by contestants would be deductible by the sponsoring organization as an expense, but does not appear to be taxable as wages. Addressing any of these problems would make the flat tax more complex.

Lastly, a new system will inevitably create unintended loopholes that will need to be addressed via corrective tax measures. It would be a mistake to underestimate the creative ingenuity of America's accountants, attorneys, and tax planners.

To be clear, all of the concerns noted above could be resolved by writing carefully detailed rules covering each contingency. But of course that is what the current system already does. There is little reason to believe that the ultimate resolution of most of these issues will be simpler under the flat tax than in the current system. Feld (1995) concludes that to avoid losing revenues, the flat tax will either generate complicated business transactions (to skirt the simple rules) or complicated tax laws (to reduce the gaming possibilities), or both. This conclusion seems quite reasonable to us.

2. Modifications to the pure flat tax All of the discussion above focuses on the pure flat tax. However, if the flat tax were implemented, “[w]e should expect near unanimity that it will be necessary to provide transition relief” (Pearlman, 1996). Zodrow (this volume) concurs that some transitional relief is “virtually inevitable.” Pearlman and Zodrow discuss the various types of transition relief that could be provided, including compensating firms for lost depreciation deductions and carry forwards of AMT credits, net operating losses and foreign tax credits. The

treatment of interest deductions will also require attention. More generally, because taxes are embedded in the fabric of existing legal contracts, transitioning to a new tax system could potentially affect numerous aspects of agreements in other areas. The effect on alimony, noted above, is one such example. Pearlman concludes (p. 419) that "inevitably, any approach [to transition relief] will make the new law more complex for a long time."

Another potential source of complexity is the reintroduction of social policy into the tax code. The pure flat tax would be devoid of all social policy initiatives. Thus, the flat tax would not only change tax policy, but also reduce the generosity of subsidies toward housing, the charitable sector, family and children, education, health insurance, state and local governments, etc.

For each existing deduction and credit, however, a political case would be made that the subsidy should be retained. To the extent that social policy creeps back into the flat tax, there will be added complexity. Notably, because the flat tax has an individual component—whereas the sales tax, for example, does not—social policy in the flat tax can be tailored to individual circumstances. However, credits for children, child care, and education all raise issues of eligibility, compliance and phase-outs. Retention of popular deductions would require additional record-keeping, reporting and monitoring. Retention of the mortgage interest deduction, in a system that does not tax interest income, could create arbitrage opportunities and added record-keeping costs. Corporate subsidies for research, environmental clean-up, and other goals could easily wend their way back into the business tax. And to the extent that the demand for any of these programs remained and the tax system was able to remain clean, there is a possibility that the programs would return as spending or regulatory initiatives.

A third source of complexity in a modified flat tax concerns the real and perceived

distributional effects. Families in the very highest income or consumption strata would see tax burdens fall dramatically (Gale, Houser, and Scholz 1996). The flat tax would make poor families worse off, because it would eliminate the earned income tax credit, but the increased burdens on the poor would not be as large as the reduced burdens on high-income families. The difference would be made up by increased taxes on middle-class families (Dunbar and Pogue 1998; Gale, Houser and Scholz 1996; Gentry and Hubbard 1997; Mieszkowski and Palumbo, this volume).²¹

It seems unlikely that these distributional effects will pass political muster. Retaining the earned income tax credit would reduce much of the distributional loss of the pure flat tax (Gale, Houser, and Scholz 1996), but would raise compliance costs. Moving to a Bradford-style X-tax (which would use the flat tax base, but has graduated tax rates on wages and sets the business tax rate at the highest wage tax rate) would provide more progressivity, but would also create administrative and compliance problems. It would significantly increase the revenue loss from transition relief. This would require higher tax rates on the remaining tax base. It would reintroduce taxpayer incentives and attempts to redistribute income across people or over time to exploit tax rate differentials. By raising tax rates at the high end of the income distribution, it would increase political pressure to restore popular itemized deductions.

A number of issues regarding what economists might describe as perceptions of fairness also arise. For example, there will be an inexorable tendency to compare the flat tax to an income tax because both are collected from individuals and businesses. Despite the fact that taxes on capital income will be collected at the business level, the non-taxation of capital income

²¹ Fullerton and Rogers (1996) and Metcalf (1997) show that the distributional impacts over taxpayers' lifetime are not as extreme as those on an annual basis. The relevance of this finding for political support of the flat tax, however, is debatable.

at the individual level may upset citizens who are used to seeing people remit taxes directly to the government on the capital income they receive.²²

Several perception issues arise in the business tax. Unlike the current corporate or individual business taxes, the business tax in the flat tax does not attempt to tax profits. Changing the entire logic and structure of business taxation will create several situations that will be perceived as problems by taxpayers and firms, even if they make perfect sense within the overall logic of the flat tax.

First, some businesses would face massive increases in their tax liabilities. For example, Hall and Rabushka (1995) note that General Motors' tax liability would have risen from \$110 million in 1993 under the current system to \$2.7 billion under a 19 percent flat tax. Despite economists' view that individuals—not businesses--bear the burden of taxes, there will likely be massive resistance at the business level to such changes. Businesses who oppose such change will demand reductions in the tax base or other types of relief.

Second, some businesses with large profits will pay no taxes. Profit (before federal taxes) is equal to revenue from sales and other sources less deductions for depreciation, interest payments, materials, wages, fringe benefits, payroll taxes, and state and local income and property taxes. The tax base in the business tax, however, is equal to revenue from sales minus materials, wages, pension contributions, and new investment. Thus, if a firm had large amounts of revenue from financial assets (i.e., not from sales of goods and services), it could owe no taxes or even negative taxes under the flat tax even though it reported huge profits to shareholders.

²²The flat tax would not tax the normal return to capital, only the excess return. That reduction in the effective tax rate on capital income may be a source of added controversy in the flat tax, but it is distinct from the issue addressed in the text, which concerns whether taxes on capital income are remitted by individuals or businesses.

This situation is consistent within the context of the flat tax. But in the past, precisely this situation led to the strengthening of the corporate and individual alternative minimum taxes, which are universally regarded as one of the most complex areas of the tax code. It is hard to see why those same pressures would not arise in the flat tax.

The third issue is the flip side of the second: some firms with low or negative profits may be forced to make very large tax payments. For example, a firm with substantial amounts of interest expense, fringe benefits, payroll taxes, and state and local income and property taxes could report negative profits, but since these items are not deductible in the flat tax, the firm could still face stiff tax liabilities. Again, this makes sense within the context of the flat tax, but will not be viewed as fair by firm owners who wonder why they have to pay taxes in years when they lose money and who will push for reforms. Misunderstanding of this point could be very important. For example, the Wall Street Journal editorial board (February 5, 1997), a strong supporter of the flat tax, nevertheless complains about a German tax that can force companies to pay taxes “even when they are losing money.” The flat tax, however, would do exactly the same thing for some firms. This will lead to efforts by businesses to retain currently existing deductions for health insurance, payroll taxes and state and local income and property taxes. Taken together, these deductions would cut the business tax base by more than half.

3. Estimates of compliance costs Slemrod (1996) and Hall (1995) have attempted to quantify the compliance costs of the pure flat tax. Both authors’ estimates ignore transition issues and the potential reemergence of social policy. Using the ADL model for taxpayer hours described above and valuing taxpayer time at \$39.60 per hour, Hall estimates that the costs of record-keeping, learning about the tax law, form preparation, and packaging/sending would equal \$8.4 billion. The projected 93 million individual returns are estimated to take an average of one

hour and eight minutes. The projected 24.4 million business returns are estimated to take an average of three hours and 24 minutes to complete.

Hall's estimates seem both significantly too large in some respects and significantly too small in others. For example, valuing individuals' time at \$15 per hour and business time at \$25 per hour, as Slemrod does, would reduce the estimate by about half. On the other hand, some of the time estimates seem implausibly low, and possibly off by orders of magnitude. Individual taxpayers are estimated to spend an average of 2.4 *minutes* per year doing record keeping for tax purposes. Businesses are estimated to spend only 2.3 hours per year on record keeping for tax purposes. Remarkably, especially in light of the discussion above on possible areas of complexity, businesses are estimated to spend an average of only 18 minutes learning about the tax law, and 24 minutes gathering all the relevant documents and preparing the return. In addition, Hall's estimate leaves out many components of compliance costs, such as tax planning and auditing.

Slemrod concludes (1996, p. 375) that "it is impossible to confidently forecast the collection cost of the business part of the flat tax on the basis of observable systems, because none exists." Instead, he offers an educated guess that the flat tax would cut business compliance costs (which were \$17 billion in the individual income tax and \$20 billion in the corporate tax) by one-third, and cut individual filing costs by 70 percent (from \$33 billion to \$10 billion), for total compliance costs of about \$35 billion. This is \$35 billion less than his compliance cost estimate for the income tax, or about 0.5 percent of GDP in 1995.²³

²³Calegari (1998) and Weisbach (1999) make a variety of points similar to those above and extend the analysis in a number of directions in their insightful analyses of administrative issues in the flat tax.

B. Evasion and Administration

While there are several areas where the flat tax may become more complex than advertised, whether the flat tax could be enforced and administered, given the probable tax rates, does not appear to be an issue. The flat tax would inherit the administrative structure and withholding practices from the existing system and on net would likely simplify the system. As noted above, reductions in compliance costs and clarification of rules can help reduce evasion. If the flat tax actually reduces marginal tax rates for most people relative to the current system, this should reduce evasion as well. Whether this occurs, of course, depends the erosion of the tax base.

V. Conclusions

As a purely technical matter, tax complexity and tax evasion can be reduced, and tax administration can be made more just and efficient. As a political and policy matter, however, making these improvements have proven quite difficult. Efforts to simplify the tax system typically run up against conflict with other tax policy goals, political factors, taxpayers' efforts to avoid and evade taxes, and revenue requirements. Each of these factors tends to shape the base, credits, deductions, rate structure and administrative aspects of the tax system in ways that raise complexity. Efforts to reduce evasion sometimes run into similar problems.

To the extent that simplicity is a goal of tax reform, many improvements could be made within the existing system. Pure versions of both the national retail sales tax and the flat tax could be vastly simpler than even an improved income tax. But realistic versions of the flat tax and especially the sales tax would require tax rates much higher than advertised by their proponents. These higher rates complicate tax compliance and enforcement. The sales tax would face potentially serious problems with enforceability and political pressure for

exemptions. The flat tax would face the same political pressures, and while enforceability is not a major issue, the tax would likely become significantly more complex than currently proposed.

Thus, simplification is an important goal of tax reform, but lasting and significant simplification may prove difficult to establish. Policy makers and voters should, therefore, weigh the costs and benefits of simplification against the other goals of tax policy.

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Table 1
Surveys of Individual Taxpayer Time

Survey	Arthur D. Little	Slemrod and Sorum	Blumenthal and Slemrod
Data Source	National random survey of 6,200 individuals ^a	Random survey of 2,000 Minnesota residents	Random survey of 2,000 Minnesota households
Response Rate	65.3%	32.7%	43.4%
Sample Size ^b	3,750	600	708
Types of Returns	1983 federal income	1982 federal and state income	1989 federal and state income
Hours Per Activity (in billions)			
Recordkeeping	0.7	1.3	1.7
Learning	0.3	0.2	0.4
Time with Preparer	---	0.4	0.2
Preparing Return	0.5	0.1	0.5
Sending	0.1	---	---
Rearranging Financial Affairs	---	---	0.3
Total Hours	1.6	2.1	3.0
Value of Time	---	\$10.65/hour in 1982\$ \$13.69/hour in 1989\$	\$10.09 in 1989\$
Out-of-Pocket Costs	---	\$44/return in 1982\$ \$57/return in 1989\$ ^c	\$66/return in 1989\$
Total Costs for Individuals	---	\$26.7 billion in 1982\$ \$34.1 billion in	\$37.6 billion in

		1989\$	1989\$ \$34.8 billion w/ same activities as 1982
Adjustments to Survey (if any)	Survey results were used to obtain models for estimating taxpayer burden. Estimates above from models.	Weighted nationally. Accounting for biases in estimates, authors suggest estimates could be as low as \$17 billion.	Weighted nationally.

^a Arthur D. Little also surveyed 4,000 corporations and partnerships, with a response rate of 36.8 percent. Businesses found to spend 1.6 billion hours on recordkeeping, 0.1 billion hours on learning, 0.1 billion hours on obtaining materials, 0.1 billion hours on finding and using a preparer, 0.7 billion hours on preparing the return, and 0.1 billion hours on sending. Total business time: 2.7 billion hours.

^b The sample size was reduced by incomplete or inconsistent responses, as well as nonrespondents.

^c Blumenthal and Slemrod report that the average out-of-pocket expenditure for 1982 taxpayers (in 1989 dollars) was \$45. This appears inconsistent with the estimate shown in the Slemrod and Sorum study, which shows that the average out-of-pocket expenditure for 1982 taxpayers was \$44 in 1982 dollars -- which would be consistent with \$56.5 in 1989 dollars.

Table 2
Estimates of Costs of Operating Income Tax System: 1995

Components	Slemrod 1995	Hall ^a 1995	Payne (1985 in 1995\$)
Individuals			
Hours Data	Blumenthal and Slemrod	OMB estimates of average hours (ADL models for 1995)	ADL models for 1985
Total Hours	2.8 billion	1.2 billion	1.8 billion
Valuation	\$15/hour (after-tax hourly wage)	\$39.6/hour (average labor cost of IRS and Price-Waterhouse)	\$40/hour (average labor cost of IRS and Arthur Andersen)
Value of Time	\$42 billion	\$46 billion	\$73 billion
Out-of-Pocket	\$8 billion	---	\$8 billion
Total Costs	\$50 billion	\$46 billion	\$81 billion
Businesses			
Hours Data	ADL survey in 1983	OMB estimates of average hours (ADL models for 1995)	ADL models for 1985
Total Hours	800 million	2.4 billion	3.6 billion
Valuation	\$25/hour	\$39.6/hour (average labor cost of IRS and Price-Waterhouse)	\$40/hour (average labor cost of IRS and Arthur Andersen)
Total Costs	\$20 billion	\$95 billion	\$145 billion
Other Taxpayer Costs	N.A.	N.A.	\$27 billion ^b (avoidance, evasion) \$18 billion (enforcement burden)
Total Compliance	\$70 billion	\$141 billion	\$271 billion

Costs

Total Administrative Costs	\$5 billion	---	\$6 billion
Total Operating Costs	\$75 billion	---	\$277 billion

^a Hall includes individual income tax returns with Schedules C and F in the business category. The other estimates include these returns in the individual category.

^b Payne would include \$236 billion that he estimates represents the distortionary effects of the income tax. Such costs are not typically included in the operating costs of the tax system and are not included in the table.

Table 3
Misreported Income on Individual Tax Returns, 1992

	Percent of Total Misreported Income	Percent of Tax Return Line Item Misreported
Subject to withholding and reporting requirements		
Wages and Salaries	8.4	0.9
Subject to reporting requirements only		
Dividends	2.1	7.6
Pension and Annuities	3.0	3.9
Interest	1.3	2.2
Unemployment Compensation	0.8	6.7
Social Security	0.4	4.1
Capital Gains	3.3	6.9
Not subject to withholding or reporting requirements		
Non-Farm Proprietor Income	26.1	31.3
Informal Supplier Income	21.5	81.4
Farm Income	6.3	31.3
Form 4747	1.4	27.1
Other	25.5	---

Source: United States Department of the Treasury (1996). Estimates based on tax deficiencies ultimately assessed after all appeals and litigation have been completed.

Table 4
Required National Sales Tax Rates

	Tax Inclusive	Tax Exclusive
To Replace Income, Payroll, and Estate Taxes		
(1) AFT Proposal	23%	30%
(2) = (1) Adjusted to Hold Government Constant	35%	54%
(3) = (2) Adjusted for 10% Statutory Base Erosion	39%	65%
(4) = (3) Allowing for 17% Avoidance and Evasion Rate	48%	94%
To Replace Income, Estate and Excise Taxes		
(1) Schaefer-Tauzin	15%	18%
(2) = (1) Adjusted to Hold Government Constant	23%	30%
(3) = (2) Adjusted for 10% Statutory Base Erosion	27%	37%
(4) = (3) Allowing for 17% Avoidance and Evasion Rate	35%	54%

Source: Authors' calculations, based on 1995 data, and formulas in Gale (1999).

Table 5
Required Tax Rates Under the Flat Tax

Alternative	Flat rate if only one adjustment is made	If all flat rate adjustments up to this point are made
Armey-Shelby flat tax (no adjustments)	20.8	20.8
Allow transition relief	23.1	23.1
Retain mortgage interest deduction	21.8	24.4
Retain health insurance deduction (businesses only)	22.3	26.5
Retain charitable contribution deduction (households only)	21.1	27.0
Retain state and local income and property tax deductions (households only)	21.6	28.4
Retain earned income tax credit	21.1	29.0
Retain payroll tax deduction (businesses)	22.3	31.9

Source: Aaron and Gale (1997).