THE (COMPLIANCE) COST OF TAXING BUSINESS

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Abstract

This paper reviews what is known about the compliance cost of taxing business, with emphasis on the U.S. corporate income tax, and discuss the implications for compliance costs for tax design and reform, and the implications of compliance costs for tax design and reform. It addresses five issues:

1. the magnitude of compliance costs,
2. the nature of compliance costs, including but not limited to how they vary by firm size, sector, and multitnationality,
3. the determinants of compliance costs, with special emphasis on what aspects of the tax system are responsible,
4. the consequences of compliance costs,
5. how fundamental tax reform is likely to affect compliance costs.

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1. Introduction

Firms play a central role in all modern tax systems, mostly for a reason eloquently stated by Richard Bird (1996): "The key to effective taxation is information, and the key to information in the modern economy is the corporation. The corporation is thus the modern fiscal state's equivalent of the custom's barrier at the border." In most countries, firms *remit* the majority of tax revenues to the government, either with regard to taxes legally owed by businesses or through withholding of taxes legally owed by employees or other businesses.[1] Even when businesses are not requited to remit taxes, they are often required to file information reports that can facilitate monitoring of tax liabilities.

The use of the word "remit" in the previous paragraph is crucial.[2] This word choice signals that it refers to the fact that the business writes a check to the IRS. It definitely does not indicate anything about bearing the burden of a tax. Remitting tax is not the same as bearing the burden of a tax, for two reasons. First of all, the tax burden can be shifted through the adjustment of market prices. If, for example, a tax on a business ultimately results in a higher price for the product, then the tax remitted overstates the effect on firm profits, which has been partially passed on to consumers who pay the higher prices. Second, under certain assumptions in the long run which side of a given market is legally liable to remit tax has no bearing on either who bears the burden or what the total burden is. For example, whether the retailer remits a retail sales tax (henceforth RST) or the customer remits it, in the long run the price received by the retailer will be the same and the price paid by the consumer will be the same, each party will be equally well off and government revenue will be the same.[3]

This bit of economic reasoning, which is standard fare in public economics textbooks, is critical to correctly understanding the impact of both the current system and fundamental tax reform, because many of the tax alternatives differ significantly in which

[1] For example, over 80 percent of U.S. federal taxes are remitted by businesses, although only 10 percent are nominally business taxes.

[2] The notion that a business "collects" tax, separately from the role as a remitter of tax revenues and perhaps also information reports, is not meaningful and will not be used in this paper.

[3] What assumptions make this irrelevance proposition statement true? That the administrative and compliance costs of a given level of compliance do not depend on which side of the market is legally liable.

parties remit the tax, so that focus on this aspect will mislead about the impact. In particular, they differ in whether business remits tax or is legally liable for the tax. As an example, note that in tax year 2000, of $204.0 billion of total corporate income tax net of credit, only $16.1 billion was for the retail trade sector. Under a retail sales tax, of course, this sector would remit all of the tax rather than about 8 percent of tax.

Another part of standard textbook fare is that it is not meaningful to talk of businesses bearing tax burdens—only individuals can bear burdens, and thus any tax legally owed by a business entity must be traced through to some individuals, be they the company's shareholders, debt holders, workers, customers, or some other individuals. But, of course, *someone* bears the burden of compliance (and administrative) costs of raising taxes. Who does depends on the nature of compliance costs, in particular what they are tied to.

This paper assesses the impact of compliance costs borne initially by businesses. It first discusses what is known about the magnitude, nature, and determinants of these costs. It then puts these costs into context by addressing their economic consequences, and by speculating on to what extent major tax reform would alter these costs and their consequences.

2. What Is Known About the Compliance Costs of Existing Tax Systems: Magnitude, Nature, and Determinants

Most of the quantitative evidence about the compliance costs incurred by businesses in the United States comes from a small number of surveys: a study commissioned by the Internal Revenue Service and carried out by Arthur D. Little (ADL) in 1988 (reinterpreted and reevaluated by Payne (1985) and Hall (1995)), Blumenthal and Slemrod (1992, 1993), Slemrod (1996), and Slemrod and Venkatesh (2002). Slemrod and Sorum (1984) and Blumenthal and Slemrod (1992), although focused on the compliance cost of the individual income tax, presented some estimates of the compliance costs of self-employed taxpayers.

The ADL estimates are based on a questionnaire mailed to 4,000 partnerships and corporations and to their tax preparers. As part of its contract with the IRS, ADL developed a model that would enable the IRS to estimate compliance burdens, form by form, and update the burden estimates as the tax system changed over time. The survey yielded estimates of six components of the burden – keeping records, getting advice, obtaining materials, sending and working with a preparer, preparing the return, and sending the return. ADL devised several models of how these six components of burden depended on readily observable variables. In the end ADL used simplified versions in which each component of the burden is presumed to depend upon at most two of three tax form variables: the number of lines on the form, the number of line items in the form instructions to the Internal Revenue Code and Regulations, and the number of attachments requested that are IRS forms. The resulting model generated an estimated compliance burden of 2.7 billion hours for businesses in 1983 – a number five times higher than the aggregate estimated from the survey results – 546.7 million hours. The ADL study did not attempt to translate the estimates of time spent on tax compliance into dollar values. Slemrod (1996) argues that the shortcomings of the ADL model make its compliance cost estimates (and those of other researchers who have based their estimates on the ADL model) unreliable.

Payne (1993) used the ADL model to estimate the number of hours devoted to compliance – 3.614 billion in 1985 – and used an hourly rate of $28.31 (the average of the hourly rate of IRS employees and that of employees at Arthur Andersen, Inc.) to arrive at a business compliance cost of $102.31 billion. Hall (1995) began with an official IRS estimate of the total time devoted to compliance – 5.1 billion hours in 1995 – that was obtained using a modified version of the ADL burden model. He made assumptions about the proportion of this burden that was accounted for by the corporate income tax, and arrived at an estimate of 2.4 billion hours. He then used a method similar to Payne's to reach an estimated hourly value of $39.60. This procedure yielded total annual business compliance costs of $141.1 billion.

Because of my belief that the ADL-based estimates of business compliance costs are unreliable, I focus here on a later wave of survey-based evidence.

2.1 Large Businesses

Blumenthal and Slemrod (1992) and Slemrod (1997) both focus on the largest companies under the purview of what was formerly known as the Coordinated Examination Program (CEP), and what is now known as the Coordinated Industry Case program (CIC). These studies are based on questionnaires mailed to the participants. The overall results are summarized in Table 1.

Two similar studies were done, one in 1992 and one in 1996. Both were based on surveys mailed to the chief corporate tax officer at the firms in the Coordinated Examination Program (CEP) of the Internal Revenue Service, with follow-up postcards and supporting letters from the president of the Tax Executives Institute. The response rate was 27.5 percent in 1992, and somewhat lower in 1996.

The low response rate of the survey questionnaires raises concern about respondent bias. However, the direction of the bias is not clear. It is conceivable that on average the respondents are irate taxpayers that consider tax compliance to be onerous, in which case the results will overstate the true costs of compliance.[4] On the other hand, it has been suggested[5] that taxpayers who find tax forms particularly objectionable are more likely not to respond to complicated questionnaires. Such behavior will understate the true compliance cost. Furthermore, it is difficult to measure the incremental cost of tax compliance – the cost that is incurred by the company solely because it needs to comply with the income tax. This is particularly true of smaller firms because those firms often do not have separate accounting departments.

With these caveats noted, I turn now to the survey results. In 1992 the total compliance cost averaged $1.57 million; by 1996, the average overall cost had increased to $1.90 million, a 21.0 percent increase over 1992. Given the 11.9 percent increase in the price level between the two survey years, this is equivalent to an 8.1 percent real increase in average compliance cost.

In 1992 about 55 percent of the cost went for within-firm personnel, about 30 percent to within-firm non-personnel costs, and slightly more than 15 percent for outside assistance. In 1996, the fraction due to within-firm personnel rose to about 65 percent, and non-personnel fell to about 17 percent; however, this difference may be to some

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[4] Tait (1988, p. 352).
[5] Sandford (1995).

degree due to a change in how the survey requested this information.[6] While in 1992 about 70 percent of the cost was ascribed due to the federal tax system, in 1996 this rose to about 75 percent.

One way to put these costs into perspective is to consider them as a ratio of tax revenue. In 1992, the CEP firms reported a total federal tax liability of $54.1 billion. The total 1992 compliance costs, for federal tax purposes only, for this group were estimated as $1.440 billion ($1.085 million per firm for 1329 firms). Thus, the cost to revenue ratio in 1992 was 2.7 percent. To get an estimate of this ratio for all levels of government, one can apply the ratio of total corporate tax revenues to federal corporate tax revenues for 1992, 1.206, to the $54.1 billion figure, yielding $65.2 billion. The ratio of the estimated 1992 total compliance cost of $2.085 billion to $65.2 billion of tax revenue is 3.2 percent. The ratio for state costs by themselves is 5.8 percent; the higher ratio reflects the nonuniformity of state rules, an issue discussed later in this report.

In both years for the tax department filing returns is by far the largest category of expense, comprising about 30 percent of the personnel costs. Audits, planning, and research each make up over 10 percent of the total within-tax-department personnel cost. However, recordkeeping is the predominant role of other departments in the tax process; in 1992, it made up nearly 50 percent of these personnel costs, and in 1996 nearly 60 percent. The second most important role taken on by the non-tax departments is preparing information for financial statements, comprising about 10% of the total, in 1996, down from 1992; other important functions are filing returns and preparing information for audits. In both years six functions—filing returns, planning, litigation, research, appeals, and audits—account for over eighty percent of the costs, with planning being the largest category, especially in 1996.

On average, there was a clear division of labor between the internal and external tax-related activities. About three-quarters of litigation expenses and about half of appeals expenses are incurred externally; a large percentage, but less than half, of research, planning, and audit work is done externally. Other functions are done primarily internally.

[6]The 1996 survey changed the wording of some questions in order to clarify interpretation of answers, and also changed the ordering of some of the questions. Such changes reduce the comparability of the answers across surveys, but are designed to improve the reliability of the 1996 results.

Some sectors experience higher compliance costs than others. Even within size categories, firms in retail or wholesale trade have significantly lower than average compliance costs, and firms in the oil and gas sector have significantly higher than average compliance costs.

A multiple regression analysis of the 1996 data reveals aspects of a company and tax situation that are associated with higher compliance cost. Holding size constant, several other cost determinants were found. Being in the mining or oil and gas sector increased costs substantially, while being in the wholesale or retail trade sector implied lower costs than otherwise. A larger number of active entities meant higher compliance costs. Firms subject to the Alternative Minimum Tax had significantly higher compliance costs. Having an ongoing appeal did not appear to be significantly associated with higher costs, whereas having ongoing litigation was associated with higher costs.

The 1996 survey investigated the potential compliance costs savings from various proposed simplifications of the current income tax system, and also from fundamental reform of the tax system -- in particular, replacing the income tax with either a flat tax or a value-added tax. The companies were first asked to estimate quantitatively the potential savings from these reforms, and then to give their open-ended qualitative comments on the “potential and problems of such fundamental reform of business taxation with regard to simplification and compliance cost.”

Based on these responses, conforming the tax and financial statement definition of income is estimated to have the biggest effect, but even that amounts to just 9.9 percent of total current compliance costs. The second biggest saving, 6.9 percent, is estimated to come from establishing complete uniformity among states and between the states and the federal government. Although the sum of the six initiatives’ estimated saving is 29.4 percent, this is certainly an overestimate of the total saving from doing all six reforms, as they are not mutually exclusive. For example, if no more than financial statement information were required, that in and of itself would eliminate the AMT reporting requirements.

The overall savings is 24.8 percent, an average which varies fairly significantly across sectors. Not too surprisingly, the retail and wholesale trade sectors expect the lowest average savings, undoubtedly because the current system generates below-average compliance costs for firms in this sector. Based on the qualitative comments, discussed below, the relatively low estimate of potential compliance cost savings is probably due to skepticism concerning whether “fundamental” reform will in reality simplify tax compliance in their business, in particular how it will affect the tax treatment of international transactions and financial operations.

The open-ended question about fundamental tax reform revealed quite a bit of skepticism about whether it would deliver considerable, or even positive, savings in compliance costs. The most often mentioned concern had to do with the transition period, with some respondents focusing on the complexity of the process and others on the potential for lost depreciation allowances, NOLs, and other tax benefits. Many other respondents cautioned that any promised compliance cost savings would depend on the states' conforming to it, echoing the importance of this factor discussed above. Other concerns raised included whether a new tax system would end up as an add-on rather than a replacement for the income tax, whether appropriate simplifying rules would be developed for international transactions, and for financial sector firms. A widespread opinion was that the compliance cost implications of radical reform are dwarfed by its other implications, both for the economy as a whole and for the tax liability of the responding firm. Several companies noted that a switch to a tax (like the VAT) in which labor costs were not deductible would lead to a potentially crippling increase in tax liability.

Multiplying the average estimated burden on the CEP firms in 1992 due to federal taxes, $1.0846 million, times the number of active CEP firms, 1300, yields $1.41 billion. A similar procedure based on the 1996 data yields $1.64 billion, in 1991 dollars. Thus, the index of compliance costs to big business for the federal tax system increased by 16 percent between the two surveys, from $1.41 billion to $1.64 billion; in 2005 dollars the 1996 figure is $2.34 billion.[7]

Respondents to the 1992 survey were asked "what fraction of the total compliance cost due to the federal corporate income tax was due to foreign-source income?"[8] From

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[7] As a comparison, Erard (1996) found that the compliance costs of Canadian big business were about a quarter less per employee, and only about half as much as a percentage of sales.

[8] In the cover letter accompanying the survey, respondents were asked to include the expenditures of foreign affiliates resulting from U.S. tax laws, and to exclude expenditures incurred due to foreign tax laws.

the responses to this question, Blumenthal and Slemrod (1995) calculated that 39.2 percent of the total compliance cost of federal taxes is due to foreign-source income.[9] These percentages are disproportionately high relative to the companies' foreign activities, based on a comparison of 39.2 percent to the fraction of either assets abroad (21.1 percent), sales abroad (24.1 percent), or employment abroad (17.7 percent). Another estimate of the importance of foreign-source operations for compliance costs comes from a 1993 survey of the 24 companies in the International Tax Policy Forum (ITPF); of the 24 members, 17 responded to the survey. The respondents consist of some of the largest multinationals in the U.S., with average worldwide assets in 1991 of $74.2 billion. These companies' estimated average annual compliance cost with the federal and state corporation income tax systems came to $13.04 million. The average costs due to foreign operations came to $4.66 million. Assuming that 70 percent of the total compliance cost (equal to $9.13 million) was due to the federal system, 51.0 percent of these costs were due to foreign-source income.

A multiple regression analysis of the role of foreign activities in total compliance costs corroborated the conclusion that the compliance costs of foreign operations are higher than that of domestic operations. This analysis revealed that for a firm of given worldwide size, as measured by total employment, shifting employment abroad to raise the foreign ratio by ten percentage points will increase total compliance costs by 6.5 percent.

These two different analytical approaches suggest that the compliance costs of foreign-source operations are disproportionately high compared to either the foreign share of assets, sales, or employment; that is, holding size constant, costs are higher with greater foreign presence. Because most of the tax otherwise due to the U.S. Treasury on foreign-source income is offset by foreign tax credits, the net tax paid to the U.S. government is small relative to foreign-source income. This implies that the ratio of aggregate compliance cost related to foreign operations to aggregate net revenue raised from these operations is very high. This conclusion must be interpreted very cautiously, however, because arguably the objective of our foreign-source income provisions is to

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[9] Note that the 39.0 percent does not represent an average of the reported percentages. Instead it is (100 times) the ratio of total costs due to foreign source income to total overall costs.

protect the revenue appropriately levied on *domestic-source* income. The argument is that, in the absence of a strict (and perhaps inevitably somewhat complex) regime for limiting foreign tax credits, multinational companies could offset domestic-source income with foreign tax credits. Even in a territorial system, under which foreign-source income is exempt from U.S. taxation, rules about the sourcing of income would have to be enforced in order to defend the U.S. revenue base. This suggests that it would be appropriate to compare the compliance costs of foreign operations not to the net revenue directly attributable to these operations, but rather to the net revenue (on both domestic-source and foreign-source income) that would be foregone if a radically simpler system were to be instituted.

2.2. Medium-Sized Businesses

Slemrod and Venkatesh (2002) analyzed the compliance costs of businesses smaller than those in the CEP/CIC program for tax year 2000. The sample was drawn from the Large and Mid-Size Business population, which comprised 230,945 business tax returns of businesses with at least $5 million in assets (or in the case of partnerships, those partnerships that have more than a certain number of partners). These businesses remitted $72.7 billion in taxes in 1999, not including any individual taxes owed by owners of pass-through entities. In sampling from this population, efforts were made to ensure adequate representation of companies filing different tax forms, and companies belonging to different industry categories. Additional information was obtained from a separate survey of tax professionals that handle the tax affairs of this category of companies.

The survey results showed, for firms with $5 million or more in assets, average total compliance costs systematically increase with increasing firm size as measured by asset size. Firms in the $5 million to $10 million asset category had an average of $35,443 in compliance costs; firms in the $10 million to $50 million category spent $93,876 on average; firms with assets from $50 million to $100 million spent on average $149,876; firms ranging from $100 million to $250 million in asset size spent an average of $243,492; firms with $250 million to $1 billion in assets had an average of $426,367 in compliance costs; and firms with over $1 billion in assets incurred an average of $1,331,643 in compliance costs.[10]

Among this group of companies, compliance costs are regressive in the sense that those costs as a percentage of firm size are higher for smaller firms than they are for larger firms. Thus, for instance, as described above, firms in the $5 million to $10 million asset category spent on average $35,443 on total compliance costs, while firms in the $100 million to $250 million category – firms 10 to 50 times the size of the $5 million to $10 million firms – spent on average $243,942 on total compliance costs – only seven times the average amount spent by the smaller firms. Regression analysis suggests that a one percent increase in size, measured by assets, results in an increase of about 0.60 percent in compliance costs, so that the ratio of cost to assets declines by 0.42 for each percentage increase in assets. Similar relationships obtain between compliance costs and other measures of size, such as sales or employment. Compliance costs for the LMSB population are clearly regressive in terms of company size.

Total compliance costs varied widely across industries. Firms in the communications, technology, and media industry had the highest average total compliance costs; they spent $719,740 on average. Firms in the retail, food and healthcare group spent the lowest average amount, $249,192. The pattern of increasing compliance costs with increasing firm size generally holds within the different industry categories, although this pattern sometimes breaks down.

For medium-sized businesses, a large proportion of average total compliance spending, 58.7 percent, was comprised of internal personnel costs.[11] Firms devoted 24.8 percent of their total compliance spending to external assistance. Internal, non-personnel costs accounted for 16.5 percent of compliance spending. No clear difference in these breakdowns of overall compliance costs emerge based on firm asset size.

[10] The average for companies with less than $5 million in reported assets is actually higher than for the next two asset size groups, suggesting that included in this category are companies in unusual situations, such as formerly large firms in liquidation or companies in the process of being acquired.

[11] Personnel costs include salaries and fringe benefits paid for business income tax compliance work. Non-personnel costs include costs for such things as software, data processing, record storage and retrieval, office space, general supplies, copying, faxing, and travel. External costs are expenditures made for outside tax services, such as those performed by accountants and tax lawyers.

The companies in this sample devoted an average of 50.0 percent of their internal spending to filing activities, 38.8 percent to pre-filing activities, and 11.2 percent to post-filing activities. On average, larger firms generally devoted higher percentages of their total internal compliance spending to post-filing activities and lower percentages to pre-filing activities than did smaller firms. Thus, for instance, firms in the $250 million to $1 billion asset category and in the greater than $1 billion asset category reported spending on average 12.8 and 16.6 percent, respectively, of their total internal compliance costs on post-filing activities, while firms in the $5 million to $10 million and $10 million to $50 million asset categories spent, on average, 5.1 percent and 8.4 percent respectively on post-filing activities. The relative percentages for spending on pre-filing activities for small and large firms is reversed.

Spending on tax planning constituted an average of 31.8 percent of internal pre-filing costs; soliciting tax guidance and information accounted for 22.5 percent; and maintaining tax-related records was 43.8 percent. Of the amount spent within the company on filing costs, firms spent 58.9 percent on average on collecting data for a tax professional, 11.3 percent on preparing the tax return from financial data, and 1.4 percent on calculating the tax. Of the total amount expended on internal post-filing activities, 20.0 percent went to amended return preparation, 39.9 percent was spent on the audit process, and 30.3 percent was devoted to responding to IRS notices.[12]

Larger firms on average spent a greater percentage of their pre-filing costs on tax planning than did smaller firms. Thus, firms in the $250 million to $1 billion and greater than $1 billion asset categories reported spending on average 40.4 percent and 45.4 percent, respectively, of their pre-filing costs on tax planning, while firms with $5 million to $10 million in assets devoted only 14.4 percent of pre-filing spending to such planning. Conversely, smaller firms devoted, on average, higher percentages of their pre-filing spending to the maintenance of tax-related records than did larger firms. Furthermore, as firm asset size increased the average percentage of filing costs devoted to collecting data generally decreased, and the average percentage of filing costs spent on preparing the tax return generally increased.

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[12] The percentages in each of the categories – pre-filing, filing, and post-filing – do not add to 100 because some firms listed “other” categories of costs (1.9 percent, 28.3 percent, and 9.8 percent of costs, respectively, for each of the three categories).

On average, 27.4 percent of expenditures on outside tax assistance were devoted to pre-filing activities, 64.9 percent consisted of filing costs, and 7.7 percent was spent on post-filing activities. The percentage of costs for outside tax assistance devoted to pre-filing activities persistently increased with firm size, and the proportion of total expenditures made on filing activities consistently decreased as firm size increased.

A higher percentage of survey respondents, 85.1 percent, reported paying for tax return preparation than for any other service. Of firms surveyed, 76.4 percent reported spending money for outside tax planning or tax advice. At the low end, only 2.9 percent of firms spent money for outside assistance with collection matters, and only 7.7 percent paid an outside professional to assist with record-keeping. Interestingly, while larger firms in some cases use outside tax professionals at a higher rate than do smaller firms, the larger firms do not do so on a persistent basis. As an example, the percentage of firms with more than $1 billion in assets that used each type of outside service other than collection assistance and record-keeping is smaller than the percentage of firms in the $250 million to $1 billion asset category that did so. This decreased usage of outside professional services may reflect, among other possible reasons, the fact that 94.1 percent of firms with assets of more than $1 billion have separate tax departments, while only 82.4 percent of firms in the $250 million to $1 billion asset category have such departments. In addition, our survey responses indicated that larger firms spent a higher percentage of their outside compliance costs on law firms and a lower percentage on accounting firms than did smaller firms.

Overall, an average of 67.0 percent of each firm's total annual compliance spending for internal costs was devoted to federal tax compliance, 26.3 percent was spent on state and local compliance, and 6.8 percent was spent on compliance with foreign-source income rules. These results are similar to the results found in the 1996 survey of large corporations: firms in that earlier survey devoted an average of 74.3 percent of their *total* (not just internal) compliance costs to federal compliance and 25.7 percent to state and local compliance.[13] With a few exceptions, as asset size increases, the proportion of compliance costs spent on federal compliance decreases and the proportion spent on foreign compliance increases.

[13] In that survey firms were not asked about foreign compliance costs.

The survey also asked firms to report the percentages of their total *external* compliance expenditures devoted to federal, state and local, and foreign compliance matters. On average, 73.2 percent of firms' total cost of outside services was devoted to federal compliance, 23.1 percent was spent on state and local tax compliance, and 3.7 percent was spent on compliance with foreign source income rules. Tax professionals estimated that 80.0 percent of the amounts they charged would be for federal compliance and 20.0 percent would be for state and local compliance.

Although compliance costs are clearly related to firm size, to some extent that relationship may be standing in for other characteristics of companies that affect compliance cost. For example, bigger firms are more likely to operate in many states and abroad. If multi-state and foreign operation increase compliance costs, then it may be those characteristics, rather than size per se, that are the drivers of cost. To investigate this issue, the natural methodology is a multiple regression analysis, which can isolate the influence of separate attributes of companies, holding constant (in a statistical sense) other attributes such as size.

A multiple regression analysis of the information provided by the taxpayers and the tax professionals reveals that sheer size, as measured by total assets, has an independent effect on compliance costs, but its coefficient is significantly lower than when it is assumed to be the *only* determinant. While a 1 percent increase in assets is associated with a 0.60 percent increase in costs when it is the only influence, it is associated with a 0.46 percent increase when other determinants of cost are included. In other words, the estimated influence on costs is about one-fourth less when other influences on cost are accounted for.

Unlike the results for the CIC population, the regression analysis does not find any statistically significant relationship between sector and compliance costs in the LMSB population. It also finds no relationship between the type of tax form a company filed and the compliance costs. It does, though, find a few characteristics of a company or a company's tax return that positively affect compliance costs, holding other factors constant. The first is being subject to the Alternative Minimum Tax (AMT), which adds 11.5 percent to total compliance costs. Calculating the Alternative Minimum Tax even when the company was not subject to the AMT adds 136 percent to compliance costs.

An international presence adds 143 percent, and being a publicly held company adds 26 percent to compliance costs.

External costs are even more regressive than total costs.[14] These costs rise by only 0.25 percent for each percent increase in total assets. However, when external compliance costs are regressed on multiple variables, this rises to 0.28 percent. Outside costs appear to be much higher (230 percent) for companies that file a Form 1120F, but this relationship is only barely statistically significant. Calculating the AMT despite not being subject to it adds 54 percent to external costs, while being publicly held increases costs by 71 percent.

When only asset size is included as an explanatory variable, a one percent increase in assets is associated with a 0.60 percent increase in internal costs; this drops to 0.35 when other explanatory variables are allowed. By far the biggest influence on internal costs was having foreign operations. Being a multinational company is associated with 211 percent higher internal costs, and each additional country with operations added another 2.5 percent. Being publicly held increased costs by 46 percent, but that relationship is not statistically significant at usual standards.

The survey included several questions designed to determine which provisions of the tax code are sources of complexity. Taxpayers were asked which of six aspects of the tax code were most responsible for costs of complying with the federal corporate tax rules; they could check more than one, if applicable. The aspect cited by the highest percentage (60.4 percent) of taxpayers were the depreciation rules. 50.5 percent of firms cited the Alternative Minimum Tax. The feature of the tax code cited the least were the depreciation recapture rules of section 1231; only 16.8 percent of firms cited these rules. Several firms also wrote in additional provisions as most responsible for compliance costs. The provisions written in by the most respondents were the capitalization rules of section 263A and the research and development credit rules. Eight firms mentioned each of these provisions.

When asked the same question regarding which tax code provisions are sources of complexity, tax professionals' answers were similar to the taxpayers' responses, with two notable exceptions. The provision cited by the largest proportion of tax professionals was

[14] Based on companies' responses.

the Alternative Minimum Tax, followed by the depreciation rules: 76.6 percent and 67.3 percent of tax professionals selected these provisions. The other major difference is the much greater prominence given to partner-shareholder issues by the tax professional: they cited this more than twice as often as the taxpayers, 63.1 percent versus 31.2 percent. As in the taxpayer survey, the capitalization rules of section 263A were the rules most often written in as another source of complexity.

According to the surveys, the median increase in compliance costs between 1996 and 2000 was 25 percent, while the median increase in total revenues among these firms was 22 percent. This suggests that costs were rising only slightly faster than revenues over this period.

An increase in costs is one symptom of a changing environment and reflects one response of firms to the environment. But firms may have responses other than simply increasing spending on tax compliance. One set of questions in the taxpayer survey was designed to learn more about how firms have responded to a changing environment. 66.9 percent of firms reported that they used computerization to deal with increased complexity, while only 8.3 percent reported that they resorted to a lower level of tax compliance to deal with greater complexity. 24.9 percent of firms surveyed reported that they had hired more people to handle tax compliance matters, and 51.9 percent reported that they had hired outside consultants.

The survey posed two questions intended to provide information about how tax code complexity affects companies' tax strategies and business planning. Neither has been asked in any previous compliance cost study. First, the survey asked whether there were tax-reducing provisions that they might have taken advantage of, but did not because of the complexity involved. Firms were given seven choices and also the option of saying that they were unaware of any such tax provisions. About two-thirds of taxpayers said they were not aware of any tax provision the firm did not take advantage of because of its complexity. But one-third did mention at least one such provision, with the fractions ranging from as high as 14.1 percent to as low as 4.7 percent. At the top of the list, at 14.1 percent, were corporate tax shelters, followed by tax credits other than the foreign tax credit, mentioned by 12.0 percent of taxpayers.

The survey also asked a related but distinct question – whether a company might have otherwise undertaken a business activity, but did not because of the tax complexity involved. Firms were given eight choices and the option of saying that they were aware of no such activities; 72.9 percent of taxpayers were not aware of any activity not undertaken because of tax complexity. Of the remainder who were aware of activities foregone, the top three mentioned were expanding operations into other states (10.4 percent), establishing a foreign subsidiary or branch (8.9 percent), and restructuring executive compensation (8.3 percent).

As with the question about foregone tax provisions, the question about foregone business activities generated different responses from tax professionals than from taxpayers. Only 37.2 percent of tax professionals were not aware of any business activities that their clients might have undertaken but did not because of the tax complexity involved. The most striking difference in responses between taxpayers and tax professionals was with respect to the choice to establish a foreign subsidiary or branch: 35.3 percent of tax professionals said their clients might have established a foreign subsidiary or branch but did not do so because of tax complexity, while only 8.9 percent of taxpayers said complexity caused them not to set up such a foreign entity. Substantially more tax professionals mentioned expanding operations into other states (30.0 percent versus 8.9 percent) and restructuring executive compensation (20.8 percent versus 8.3 percent).

The differences between tax professional and taxpayer responses to these questions might be explained at least in part by possible differences between the kinds of clients served by the tax professionals surveyed and the kinds of businesses represented by the firms surveyed. It is also likely that the professional has principal responsibility for making many of these decisions on behalf of the taxpayer, and is more aware of the details of the tax choices made on behalf of the taxpayer.

Using the survey results to derive an estimate for the total compliance costs of the LMSB population is fraught with several problems, discussed in detail in Slemrod and Venkatesh (2002). Two procedures used to adjust the survey results to account for these problems generate very similar estimates of aggregate compliance costs - $21.0 billion and $22.3 billion, or between $23.0 and $24.4 billion in 2005 dollars.

One useful benchmark for the total compliance costs of a sector is the revenue raised from that sector. According to the 1999 Statistics of Income data, the LMSB population paid $72.7 billion in taxes in that year, excluding any individual taxes paid by owners of pass-through entities. Adjusting for inflation, this amounts to $75.1 billion in 2000 (which is the tax year for which our respondents provided information). Thus, the ratio of estimated total compliance costs to revenue is between 28.0 percent (21.0/75.1) and 29.6 percent (22.3/75.1). This is between 10 and 11 times as much as the 2.7 percent estimated in Slemrod (1996) for the CIC population in 1992.

From one perspective, this much higher ratio of compliance costs to revenue is not surprising, because it is consistent with the long-suspected (and oft-documented in other countries) regressivity of business compliance costs. In another important sense, though, this ratio is misleading on the high side. This is because 60.5 percent of the LMSB population consists of pass-through businesses such as partnerships and Subchapter S corporations, and 65.7 percent of all weighted compliance costs come from pass-through entities. These entities do not themselves remit tax, although their owners pay tax on the income they generate. As a fraction of the tax paid by the non-pass-through entities and the *owners* of the pass-through entities, the percentage of compliance costs would certainly be significantly lower.[15]

In sum, the analysis of the responses of taxpayers and tax professionals in the LMSB sample confirms the regressivity of business compliance costs and suggests that, as a proportion of taxes paid, they are significantly higher than for the largest U.S. businesses. As a fraction of revenue raised, these costs are also apparently much higher than for the CIC population or for individual taxpayers. Comparisons to revenue must be done carefully, however, because the majority of LMSB "taxpayers" are in fact not taxpaying entities, but are rather pass-through entities.

[15] According to IRS data, net income reported by pass-through entities (those filing Form 1065 and Form 1120S) for the 2000 tax year was $117 billion. At the 34 percent tax rate, this amounts to $39.8 billion in tax revenues. Including these tax revenues, the ratio of estimated total compliance costs to revenue declines to between 18.3 percent and 19.4 percent. Similarly, an additional 1.5 percent of the LMSB population is made up of firms that file Form 990C, 1120FSC, or 1120F, and 6.6 percent of all weighted compliance costs are incurred by firms filing these form types. Firms that file Form 990C are generally exempt from federal income tax; firms that file Form 1120FSC pay federal tax under preferential rules that significantly reduce their tax burden; and firms filing Form 1120F generally pay federal tax only on their U.S.-source income. The fact that these firms pay no federal tax or pay a lower rate of tax than do domestic taxable corporations further exaggerates the ratio of compliance costs to tax revenues generated.

2.3 Small Business

Compared to large and medium-sized businesses, much less is known about the compliance costs incurred by small business. No comprehensive survey-based study has been done for the United States. It is, though, widely believed that the burden of government regulation, defined to include but not restricted to tax, is regressive with respect to firm size, in the sense of being larger in proportion to size for smaller companies compared to larger companies. The idea is simply that a firm must spend resources to determine whether a regulation or tax provision applies to it, and, in the case of regulations, whether it is in compliance and what actions must be taken to be in compliance. These information gathering costs are fixed regardless of firm size, and larger firms can spread this fixed cost over more units of output, sales, or assets. In part, this problem is handled by the outsourcing of tax compliance matters. Indeed, as Ashby (2000) reports, according to the IRS between 80 and 88 percent of small businesses rely on tax practitioners to prepare their returns. In some instances Congress and regulatory agencies have exempted small firms through "tiering" of the laws and rules.

Nevertheless, a report by the Small Business Administration Office of Advocacy (1995, p. 5) calculated that the overall regulatory burden to small firms (where the cutoff between small and non-small is 500 employees) was approximately 50 percent more per employee than the cost to large firms. Survey-based studies of individual income tax compliance costs suggest that on average self-employed taxpayers spent nearly three times as much of their own time on tax compliance as other taxpayers (60 hours, as opposed to 21 hours[16]), and were twice as likely to use professional assistance to prepare their taxes.[17]

Studies of compliance cost in other countries suggest that the regressivity of compliance costs is a universal phenomenon and carries over to small businesses. Although large companies in Australia and New Zealand generally have greater total compliance costs than small firms, but as a proportion of turnover, compliance costs are

[16] In the 1989 survey, the average time spent on taxes by taxpayers that were homemakers, employed, or retired was about 21 hours.
[17] See Slemrod and Sorum (1984) and Blumenthal and Slemrod (1992).

greater for smaller firms than for larger firms.[18] One careful study of the United Kingdom study revealed that businesses' compliance costs for the corporate tax (and for other taxes studied) were strongly regressive: small businesses (up to £100,000 of taxable turnover) had compliance costs equal to 0.79 percent of taxable turnover, while compliance costs for medium-sized (£100,000 to £1 million) and large (over £1 million) businesses were 0.15 and 0.04 percent, respectively, of taxable turnover. A study of the Netherlands also found that compliance costs per employee and as a proportion of turnover decreased significantly as firm size increased.[19]

One of the most trenchant criticisms of the use of survey-based methods to estimate compliance costs owes to Wallschutzky (1995). For each of twelve small businesses in Australia, he conducted an initial interview and subsequent quarterly interviews, and also had the business managers complete monthly diaries of their time spent on compliance activities. Based on this study, Wallschutzky concluded that survey-based studies probably overstate the costs and problems of complying with taxes. Perhaps his most telling conclusion, however, is that "measuring any aspect of compliance in small business is fraught with danger," due to uncertainty about what exactly constitutes a compliance activity and the difficulty of locating one person who is aware of all the company's compliance activities. This is an important caveat to all quantitative estimates of tax compliance costs, and probably applies most to small business.

3. The Consequences of Business Compliance Costs

3.1. Distinguishing Private Costs from Social Costs

With some exceptions, compliance costs represent costs to society. The exceptions, where private costs differ from the social costs, are worth some attention. One concerns fines for noncompliance, which are certainly a private cost to the fined party, but are a transfer from the private to the public sector rather than a social cost. Another example is when compliance costs are deductible from taxable income; in this

[18] See Sandford and Hasseldine (1992) and Pope (1995).
[19] See Allers (1995).

case the private cost directly incurred by the taxpayer is less than the social cost programs, part of which is passed along to other taxpayers and/or beneficiaries of government programs.

A related issue arises because the survey-based estimates of compliance costs highlighted in this paper do not distinguish between involuntary costs that are must be expended to comply with the law, and discretionary costs that are incurred to avoid or evade taxes. Mills, Maydew and Erickson (1998) show, for large companies, that greater compliance costs are associated with a lower effective tax rate, other things equal, suggesting that at least some of these costs represent tax planning and the like. To the extent that this happens, the compliance costs directly incurred by the business overstate the net private costs imposed by the tax system, because part of the compliance costs generate tax saving that is passed along through their negative effect on the government budget.

3.2. Efficiency and Equity Implications

Whether the social costs of our tax system are too high is a question that is beyond the scope of this paper, as answering it would involve evaluating whether the benefits of a more costly tax system, in terms of the equity of how the tax burden is borne, justify these costs. A more modest objective is to assess the efficiency and equity implications of the current system. This is of intrinsic interest, and also provides helpful context to the discussion of tax reform that follows.

Just as the burden of all taxes levied on business entities needs to be traced to individuals in their role as customers, shareholders, workers and the like, the burden of tax compliance costs initially borne by businesses must be so traced. The economic logic of how to do this tracing is the same, with the key question being what the compliance costs depend on. The preceding survey of the business compliance costs literature suggest that compliance costs depend, inter alia, on size (in a regressive way), sector, and multinationality. The dependence of costs on these aspects of business activity generates inefficient incentives, unless they mimic the true cost of enforcing taxes. For example, the fact that businesses in the retail sector seem to have lower compliance costs (and businesses in the oil and gas sector higher compliance costs) would inefficiently attract firms into that sector unless it really is cheaper to collect taxes in this sector; in the latter case, the relatively low compliance costs correctly reflects signals that the true social cost of collecting taxes from this sector. The same reasoning would apply to multinationality or size per se.

Sorting through the economics of this question is not easy, and the difficulties are nicely illustrated by the debate over "vendor discounts" in the retail sales tax. These discounts are offered by some states for the prompt remittance of sales tax by retail establishments. These discounts are sometimes justified as compensation for the compliance costs incurred by the retailers. But if the discounts were just equal to a fraction of the tax liability, their effect would be identical to a statutory reduction in the tax rate.[20] A similar issue applies to the "float" earned by firms in the tax remittance process, which refers to the interest they receive in the period between when the taxes are "collected" from consumers (in the case of a retail sales tax) or employees (in the case of withheld employee taxes) because they need not remit tax to the IRS immediately.

4. The Compliance Cost of Alternative Tax Systems

One of the motivations behind tax reform is to simplify the tax system, and the (total, not just those borne initially by businesses) compliance costs are arguably the best measure of how simple or complex a tax system is. This section reviews evidence relevant to the compliance costs of alternative tax systems.

In reviewing this section, it is important to keep in mind that the compliance cost implications of adopting a replacement for the income tax would depend on whether state and local governments retain an income tax. Under the current system, the sub-federal systems "piggyback" on the federal system, in that the incremental costs of calculating (and verifying) income are much smaller than they would be if no federal income tax existed. Without a federal income tax, this would no longer be true, so that the net change in compliance costs would be substantially higher than the costs of the new system minus the costs of the current federal income tax; how much higher is not known.

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[20] In fact most of these discounts are limited and are often dependent on prompt remittance of payment, so their incidence and efficiency effects are more complicated than the text suggests.

Offsetting this is the possibility that that there may be economies of scope in tax compliance so that, for example, the incremental compliance cost of a VAT are lower if there is already an income tax in place; this is certainly plausible, but again there are no hard numbers available to quantify it.

4.1 Retail Sales Taxes

Because forty-five states make use of retail sales tax (RST), it is reasonable to examine their experience to get a feel for the collection cost of a federal sales tax. Due and Mikesell (1995) report that in 1991-3 the administrative cost as a percentage of revenue for a sample of eight states ranged from 0.41 to 1.0 percent.[21] Just as with the income tax, though, the administrative costs are only a small fraction of the total cost of collection, the bulk being the compliance costs borne directly by the taxpayers, who in this case are the retail businesses.

In the past half century there have been over a score of studies of the compliance cost of state sales taxes, of varying qualities. May (1984) summarizes 24 studies of the cost of collection carried out between 1956 and 1983. The methodologies of these studies are not detailed, but it is clear that they differed greatly in their comprehensiveness, based on the fact that the sample size varied from as low as 7 businesses to as high as over 2,000. As a percentage of sales tax collected, the median cost of collection estimated in these 24 studies was 4.4. One study of note was done by Peat Marwick, Mitchell and Company (1982), with a total sample size of 2,622 retailers covering seven states in 1982. They estimated the direct cost to retailers to range from 2.0 percent of tax due in Missouri to 3.75 percent in Arizona. They found that the main element in compliance costs was the cost of distinguishing between taxable and nontaxable items. A *Tax Administrators News* survey in 1993 combined the results of several studies done after 1990, and found an average cost for all retailers in all states of 3.18 percent of total sales tax collected. The lowest cost state was Florida (2.69 percent), and the highest cost state was Colorado (4.52 percent).

The most recent major study was done in 1998 by the Washington Department of Revenue (henceforth WDOR). They sent surveys to 3,000 retailers in Washington (51

[21] Over a much larger sample of states in 1979-81, the average ratio was 0.73 percent.

percent responded) and a control group of 400 retailers in Oregon (36 percent responded), and used the responses to estimate dollar costs of various aspects of sales tax compliance. The dollar-weighted average compliance cost was 1.42 percent of revenue collected. The estimated burden was quite regressive: 6.47 percent of revenue collected for small (gross retail sales between $150,000 and $400,000) retailers, 3.35 percent for medium gross retail sales between $400,000 and $1,500,000) retailers, and 0.97 percent for large (gross retail sales over $1,500,000) retailers. These figures do not reflect a subtraction of the benefits of float, which were calculated separately. Nor do the estimates take into account the deductibility of costs from state or federal income tax.

One striking and troubling aspect of this study's conclusions is that 78 percent of the estimated cost of compliance for large retailers, and approximately 67 percent of the overall cost, is attributed to credit and debit card fees. This is because the WDOR data show credit card fees as a roughly constant fraction of about 0.8 percent of tax due for all types of firms. Taking these purported costs out, the overall average compliance cost was 0.47 percent of revenue, and was 0.21 percent for large retailers. Including these costs as part of compliance cost is justified briefly as follows: "retailers pay credit card companies a fee for each credit card sale. Since the fee is a percentage of the total amount charged on the credit card, the retailer must pay a fee on the amount of sales tax collected." (p. 14) Note that this cost has nothing to do with state laws and nothing to do with the characteristics of the business, with the exception that retailers who don't take credit cards would have no costs. It is difficult to believe that the equilibrium market price for providing these services depends on the sales tax rate, if any, in effect, so that this cost should not be included in an appropriate measure of compliance costs.

WDOR's focus groups confirmed the conventional wisdom that the most burdensome and time-consuming aspect of sales tax compliance is in distinguishing taxable sales from exempt sales; they cite the "large time commitment to obtain, store, update, and retrieve paperwork to document exempt sales." WDOR estimated the cost of this commitment by comparing staffing levels of stores that had a high percentage of exempt sales to stores that had a low percentage of exempt sales. They found that there was no statistical relationship between exempt sales and staffing levels. They concluded from this that, on average, distinguishing exempt from taxable sales imposed no extra costs.

If the cost attributed to credit and debit card transactions is excluded, as it should be, the overall compliance cost estimate is starkly lower than the conclusions of most previous studies, although it corroborates the sharp regressivity of the burden found in other studies. Of course, by its nature the Washington State study was restricted to a single state, and did not address the complexities of compliance costs for retailers with a multi-state presence. More specifically, the Washington State study did not attempt to allocate costs associated with multi-state retail operations, or to capture the degree to which compliance costs vary depending on the complexity of the sales and use tax systems in individual jurisdictions.

Unfortunately, these figures cannot be meaningfully extrapolated to a situation where a federal retail sales tax replaces much or all of federal tax revenue. First of all, the figures for the RST refer to state rather than federal level taxes. Much more importantly, they refer to tax rates that, with a few exceptions, range between 4 and 6 percent, while a revenue neutral RST substitute for federal income tax rates would feature a rate of at least 20 percent and one that could easily be in excess of 30 percent.[22]

It is impossible to extrapolate from the experience of the states in administering and enforcing 4 to 6 percent rates to get a picture of what enforcing a rate five times that high would be like. On the bright side, experience has shown that it is less than twice as expensive to administer the same tax system with twice as high a rate, holding constant the quality of administration and enforcement. For this reason, if a 5 percent RST rate cost 4 percent of revenue to collect, a 10 percent rate would cost less than 4 percent to collect.

The key words in the previous sentence are "holding the quality of administration constant." The pressures for both tax avoidance (legal loopholes) and tax evasion multiply as the tax rate, which is after all the reward to evasion or avoidance, rises. Just

[22] These totals are for a federal RST alone. Combined with existing state rates of between 4 percent and 6 percent, the total rate goes even higher. Furthermore, if the federal income tax were in fact to be abolished, there could be tremendous pressure on the states to abolish their own income taxes, so as not to be the only reason that individuals must keep records and file income tax returns. If this happened, undoubtedly some of the revenue from income taxes would be made up by higher RST rates, easily pushing the combined rate in some states to 40 percent, depending on how broad a tax base is used.

as with income tax, there are all sorts of difficult interpretational issues under the sales tax. The difference is that, unless you run a retail sales business, the typical American never hears about these problems. Whenever there are exempt commodities, where the line is drawn is important; this is a contentious issue when the rate is 5 percent, and would be much more so at 25 percent. Consider the problem if expenditures or food, but not restaurant meals, are exempt. What is the appropriate tax treatment of salad bars in grocery stores or fast food restaurants, where the customer may eat in or take out?[23]

Keep in mind that a well-functioning retail sales tax must restrict the tax to final sales to consumers. In most states, this is done by giving businesses a registration number to present when purchasing goods from other firms, exempting them from sales tax liability. But this procedure is imperfect, and many businesses end up paying tax on purchases used in their business. At high rates, the mirror-image problem arises with a vengeance -- final consumers inappropriately make use of business registration numbers to avoid the sales tax. This problem highlights the fact that under a RST the onus of tax enforcement is placed entirely on the retail sector.

These are difficult and contentious issues when the rate is 5 percent, but would be much more so at 25 percent. Worst of all, there is no historical precedent to reassure us that these problems are manageable. In history over five countries have operated retail sales taxes at rates over 10 percent. Two of them, Norway and Sweden, decided to switch to a value-added tax. At such high rates, there would likely be considerable difficulty in enforcing the equitable collection of the tax liability; as a leading expert (Tait, 1988) has put it: “at 5 percent, the incentive to evade tax is probably not worth the penalties of prosecution; at 10 percent, evasion is more attractive, and at 15-20 percent, becomes extremely tempting.” Tanzi (1995) concludes, based on a review of worldwide practice, that a retail sales tax of 10 percent is probably the maximum rate feasible.

I conclude that whether the collection cost ratio for U.S. states is 2 percent or 4 percent is irrelevant for an analysis of its complexity as a replacement for the U.S. income tax. There is reason to be concerned that such a tax is not administrable at standards of equity we are accustomed to.

[23] One pervasive problem with state-level RSTs, the difficulty of taxing interstate sales of goods and services, would not apply to a federal RST, although cross-country-border tax issues would arise.

4.2 Value-Added Tax

Compared to a retail sales tax, a value added tax (henceforth VAT) requires the involvement of many more firms in the tax collection process, because all firms, and not just retailers, are subject to it. This in itself adds to the cost of collection, because not only must more firms keep records, more must be monitored by the IRS, or its renamed successor agency. On the plus side, the VAT adds a critical element of self-enforcement to the tax collection process because under the standard credit-invoice type of VAT, firms can claim tax credits for purchased inputs only if they can furnish evidence that the inputs were purchased from a taxpaying firm; this self-enforcement feature is impossible at the retail level, as consumers have no incentive to ensure that they make purchases from tax-law-abiding retail establishments and have an incentive to masquerade as tax-exempt business purchasers.

If a VAT were to replace the income tax, not only could individual income tax returns be completely eliminated, but business tax returns could be significantly simplified, requiring no more information than is now collected in the normal course of business. Nevertheless, the new tax would not run itself; it would certainly require a bureaucracy to administer and enforce it. In 1984 the U.S. Treasury Department estimated that to run a relatively simple version of a VAT it would need 20,694 new staff positions, with a total administrative budget of $700 million when fully operational, assuming a 2.2 percent audit rate.[24] A 1993 study by the General Accounting Office estimated the annual administrative cost at $1.8 billion, but assumed a 7.8 percent audit rate. Because in the GAO report, audits make up over 70 percent of the total cost, this estimate is quite comparable to the Treasury estimate.[25] The cost figure depends on whether, and at what level, small businesses are exempt from the VAT system. The

[24] These estimates, and those that follow, presume that the VAT would be of the credit-invoice type, rather than the "subtraction" or "addition" type, and that a uniform rate would be applied to taxable goods. There is wide agreement that multiple-rate VATs are more costly to collect. The self-enforcement aspect of the VAT, alluded to earlier, applies only to the credit-invoice version of the VAT.

[25] The difference between the two estimates nicely illustrates the point that one cannot evaluate the collection cost of a tax system without considering the other criteria, especially the equity of the process. A poorly enforced, and therefore more inequitable, system is inevitably cheaper than a well-enforced system.

GAO estimated that exempting all businesses with revenues below $100,000 would cut the cost from $1.8 billion to $1.2 billion.

Of course, potentially the largest fraction of the cost of running a VAT is not the administrative budget, but rather the cost expended by the taxpayers themselves. Considering both the administrative and compliance costs, the Congressional Budget Office (1992) estimated the costs of raising $150 billion from a European-style VAT to be between $5 and $8 billion, or between 3.33 and 5.33 percent of revenues collected. They note, though, that these costs would be "largely independent" of the amount of revenue raised, suggesting that the cost-revenue ratio for a $700 billion VAT could be substantially lower, although to an unknown extent. Taken at face value, the CBO estimate certainly suggests a large cost saving compared to the current system. However, before jumping to the apparent conclusion of large simplification, several points should be noted.

First, a portion of the apparent compliance cost saving of replacing the income tax with a VAT stems from the elimination of individual tax returns. This saving would be largely mitigated if the states do not abolish their own personal income tax systems. Because most of the information required to calculate income is currently used for both federal and state income tax purposes, eliminating only the federal return requirement would not spare most individuals the need to file returns and keep track of the requisite information.

Second, the cost estimates from CBO and others, summarized by Cnossen (1994), presume that businesses with turnover less than a certain amount will be exempt from VAT liability. But recall that small business is the most costly sector to tax, as judged by the cost-to-revenue ratio, under an income tax as well as under a VAT, so that exempting small business from tax would effect considerable simplification under the income tax, too. To put it another way, part of the calculated compliance and administrative cost savings from adopting a VAT come from dropping hard-to-tax entities out of the tax system, which has nothing inherently to do with a VAT. The same kind of caution applies to replacing the current corporation income tax with a VAT. Some of the simplification would certainly reflect inherent structural features. Some simplification, though, is attributable to the elimination of certain aspects of the current income tax --

such as the alternative minimum tax -- which are not inherent to an income tax, and which could be abolished or altered to simplify matters while retaining the basic income tax structure.

Finally, it must be said that the VAT poses some tricky administrative issues, such as how to tax financial institutions. The VAT base applies only to real flows -- receipts for sales minus the cost of inputs -- and not to the financial operations of a firm. But for a financial institution the financial transactions are the real purpose of the business and the pricing of the services offered is often implicit in the interest charges and payments. Thus, by placing net interest receipts outside of the tax base one may be seriously mismeasuring the true value added of a financial firm, or of a non-financial firm with financial operations. As Bradford (1996) argues, in some cases this problem also exists under the income tax, as when the interest on deposits is net of the services a deposit account provides. In other cases it is unique to the VAT, such as the necessity under a VAT to monitor installment payment schemes for sales to consumers in which the sale price is converted into "interest payments," which would be nontaxable to the firm under a VAT.

Although these problems with a VAT are difficult, there are also three decades of experience in other countries, particularly in Europe, on which to draw. In fact, of all the major industrialized countries, the U.S. is the only one that does not use the VAT, although the European countries that levy a VAT also have an income tax which itself often collects substantial amounts of revenue.

In contrast to the RST, it is not out of the range of historical experience to go completely cold turkey on the income tax and substitute a VAT. The standard rate, applied to most goods and services, is 20 percent or more in several European countries. Although 10.1 percent -- the ratio of federal income tax receipts to GDP in the U.S. -- is higher than that collected by VAT in any other OECD country, it is not higher by much.

The fact that VATs have been around a while, at levels comparable to what the U.S. would need to replace the income tax, is both the good news and the bad news for the VAT. It is the good news because we would not be stepping into unknown territory, as would be the case with a RST, flat tax, or personal consumption tax. It is the bad news because the experience from other countries is not encouraging about the possibility of actually realizing the simplification potential of a VAT. For the most part the European countries do not levy the kind of broad-base, uniform-rate VAT that people have been discussing, or perhaps fantasizing about. Instead the European VATs feature multiple rates, a system which requires difficult-to-make distinctions and invites abuse and the need for close monitoring.

The scant quantitative evidence that exists suggests that, warts and all, in some cases the European VATs are apparently no simpler than their income taxes. A careful study of the British tax system in 1986-7 concluded that the ratio of collection cost to revenue raised was only slightly lower for the VAT compared to the personal income tax -- 4.93 percent for the personal income tax (1.53 percent for administration, 3.40 percent for taxpayer costs), and 4.72 percent for the VAT (1.03 percent administration, and 3.69 percent for taxpayer costs).[26] A recent study of the Swedish tax system suggests that in that country the VAT is *more* expensive to operate than the income tax, costing 3.11 percent of revenue compared to 2.73 percent for the income tax,[27] prompting the author to remark that "the VAT is evidently not the simple tax it has been marketed as." (p. 258). Undoubtedly, in these two cases the failure of the VAT to display a collection cost advantage reflects both that actual VATs are more expensive than ideal VATs, and also apparently that European income taxes are less costly to collect than the U.S. income tax.

Nor do enforcement problems disappear, in spite of the theoretical self-enforcement feature of the credit-invoice method of administering the VAT. Estimates of evasion range from 2 - 4 percent in the United Kingdom to 40 percent in Italy.[28] A VAT requires an enforcement system to monitor unregistered business, exaggerated refund claims, unrecorded cash purchases, underreported sales, false export claims, and so on.

All in all, there is no doubt that a VAT *potentially* represents a major simplification compared to our current income tax. But the failure of European VATs to be as simple as the drawing board version of a VAT would suggest caution when comparing the messy real world to an ideal. More practically, it is a warning that, if the

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[26] The corporation income tax was the lowest of the three at 2.74 percent of revenue, comprised of 0.52 percent administration and 2.22 percent compliance costs. See Godwin (1995).

[27] The income tax cost was 1.03 percent for administrative cost, 1.70 percent for taxpayer cost. For VAT it was 0.61 percent for administrative cost, and 2.50 percent for taxpayer cost. See Malmer (1995).

[28] See Tait (1988), p. 304.

U.S. were to adopt a VAT, it would be well advised to keep it simple, in particular, levying a uniform rate on all goods.

4.3 The Hall-Rabushka Flat Tax

The Hall-Rabushka flat tax is essentially a VAT with one change – labor costs are deductible for businesses, but are taxed to individuals. Thus, in contrast to a VAT, the flat tax does require returns of those individuals above the filing threshold level of income, so it is bound to be more costly to operate than a VAT. Compared to the current income tax, though, its vastly simplified postcard personal tax return is perhaps its greatest attraction.

In attempting to quantify the likely collection costs of a flat tax, two strategies are possible. One is to start with what is known about its close relative the VAT, and then estimate the additional cost of the flat tax. The other is to begin with what is known about the collection cost of the existing system, and estimate what is saved by the simplifying aspects of the flat tax.

With regard to the first strategy, there are two pieces of evidence to go on. The European-style VATs, with multiple rates and the complexity that engenders, appear to cost between 3 and 5 percent of revenue. We have an estimate from the Congressional Budget Office that a cleaner, "U.S.-style" VAT with a single rate would cost about the same if it raised $150 billion, but could cost substantially less, as a percentage of revenue, if higher rates were applied.

What does this imply about the flat tax? Its business tax base is akin to a subtraction, rather than an invoice-credit, VAT, except that compensation to labor is deductible.[29] Both of these divergences from a European-style VAT will increase its collection cost ratio. The deductibility of payments to labor drastically reduces the business tax base, but doesn't at all reduce, and perhaps increases, the cost of collection.[30] Second, using the subtraction method sacrifices the natural enforcement advantages of

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[29] The business part of the flat tax *cannot* utilize a credit-invoice credit system, because the tax due on the seller's receipts bears no relationship to the amount deductible by the buyers.

[30] The cost of collection might actually increase because, unlike a VAT, this system requires firms to differentiate between purchased of (deductible) material inputs and (non-deductible) payments to labor. A VAT and the business tax part of the flat tax both require differentiating between financial flows, which have no tax implications, from sales receipts and deductible inputs.

the invoice-credit method. Furthermore, it makes exempting small businesses much more costly in terms of foregone revenue; in fact, neither the Hall-Rabushka flat tax blueprint nor the Armey-Shelby version mention a small business exemption. In its absence, the cost savings of being able to ignore the hardest-to-tax sector are entirely lost.

For all these reasons it is impossible to confidently forecast the collection cost of the business part of the flat tax based on related, but different, systems; nor does any country operate a system just like this. As Feld (1995) discusses, some of the vexing issues of business taxation, such as the distinction between an asset used for business purposes and consumption purposes, do not go away under a flat tax, and may even be exacerbated by it. As Weisbach (2000) details, some new issues would likely arise. A major source of uncertainty is the set of transition rules that would accompany the passage of a flat tax; from a political perspective, it is difficult to see how it could be passed "cold turkey," with no consideration to the trillions of dollars of undepreciated basis in existing assets and existing debt.

4.4 The Personal Consumption Tax

Under a personal consumption tax, consumption is measured for each personal taxpayer as income minus net saving. In theory, all income is included in the individual tax base -- wages and salaries as well as interest receipts, dividends, and capital gains. What differentiates it from a pure income tax is that there is an unlimited deduction for all net new savings. Think of this as an unlimited, unrestricted traditional Individual Retirement Account that allows for the deduction of net additions to savings accounts, investments in stocks, bonds, mutual funds, life insurance, and other assets. Unlike existing IRA rules, there would be no annual limit on deductions. Like IRAs, withdrawals from the accounts would be taxable at the appropriate marginal rate.

A whole host on new enforcement issues and complex avoidance schemes arise under a personal consumption tax. For example, while taxpayers would have the incentive to report all the deductions for new saving to which they are entitled, they would have an incentive not to report withdrawals or borrowing. The Treasury Department's 1984 study of this issue concluded that compliance with a personal consumption tax would require "a more extensive system of information reporting and monitoring than does an income tax," including "a comprehensive inventory of all existing wealth upon enactment of the tax, registration of private borrowing, and a far-reaching system of exchange controls to facilitate policing of foreign transactions."[31] Ginsburg (1995) studied the USA Tax, a fleshed-out version of personal consumption tax, and concluded that the plan was fundamentally flawed. Some of the problems are due to the transition rules, deductions, and compromises in the USA Tax in particular, but others are hard to avoid in any personal consumption tax of this type. In its favor, a personal consumption tax eliminates the need for a complex business tax, as it can stand alone or be accompanied by a VAT, the simplification advantages of which have already been discussed.

I place the personal consumption in the same category as the retail sales tax. Evidence on the cost of collection is beside the point, because I suspect that it is unenforceable at the standard of equity and the lack of intrusiveness that most American taxpayers would expect.[32]

4.5 The President's Advisory Panel for Federal Tax Reform

On November 1, 2005, the President's Advisory Panel for Federal Tax Reform issued a report that outlined two proposals, one based on an income tax model and one based on a consumption tax model. Regarding the overall simplification, the Panel's chairman, Connie Mack, said the leaner tax form of both proposals could cut the annual cost of compliance from $140 billion to $40 billion, but that seems an exceedingly generous estimate. The report claims that most of the simplification would occur on the business side, and certainly there are many innovative aspects of the proposals that would impact importantly the tax compliance process.

One of the Panel's innovative proposals established three categories of business, based on average annual cash receipts over the previous three years. As Shaviro (2005) points out, maintaining this distinction would probably require rules to prevent taxpayers from artificially separating their businesses into separate pieces, in cases where they

[31] U.S. Department of Treasury (1984, Vol. 1, p. 203).
[32] It is interesting to note that one of the strongest proponents of the personal consumption tax, the British economist Nicholas Kaldor, thought it was too complicated to be the backbone of a tax system.

preferred to be treated as small or medium-sized businesses, and rules delineating at what point a business is new rather than a continuation of a previous one.

Small businesses would benefit from a tax accounting system that is similar to their regular bookkeeping regimes. It would require small and medium-sized businesses to maintain designated bank accounts that apply only to business transactions, and require credit card issuers to report business transactions to the designated financial institution and to the IRS. Although clearly designed to improve compliance, this procedure would have implications for compliance costs.

Medium-sized businesses would no longer have to keep track of basis and depreciation asset-by-asset, but would instead use a set recovery percentage to the overall account balance for a given category of asset. This promises substantial compliance cost saving due to reduced record-keeping requirements.

The panel report proposes, under the income tax version, to shift to a mainly territorial system for taxing multinational companies. Tillinghast (1991) considers a similar type of exemption system, under which passive income would be taxed on an accrual basis but active business income of foreign-source would be exempt from U.S. taxation, and concludes that this system "would accomplish some, but not a remarkable amount of simplification." Although there would be no need for a foreign tax credit mechanism for active income, it would still be necessary to sort income into U.S. and foreign source and then into the exempt category and foreign tax credit category. Expenses would still have to be allocated and apportioned. Because the incentive to shift taxable income out of the United States generally increases under such a plan, one might expect that the inevitably tightened transfer pricing rules would increase the compliance costs of having foreign-source income.[33] Graetz and Oosterhuis (2001) argue that there is little simplification necessarily inherent in moving to an exemption system, although such a move does provide an opportunity to reconsider a variety of issues that might simplify the taxation of international business.

The panel admits it did not flesh out ways to implement some proposals, such as how to tax financial institutions under its Growth and Investment Tax that, in principle,

[33] The report acknowledges this issue by recommending that "additional resources" be spent on examining transfer pricing issues.

would exempt all financial flows from the tax base. Implementing this would require that financial firms identify the portion of the payments they receive from business customers that are attributable to financial intermediation services and, perhaps most problematic of all, require that the code define what is a financial firm.[34]

5. Conclusions

Any tax system is costly to operate, and will entail both administrative and compliance costs. Different systems place different relative burdens on the taxpayer and the tax enforcement agency. They also score differently on the other important criteria by which we evaluate taxation -- the fairness of the tax burden, and how supportive it is of economic growth. Compliance costs represent resources that, under other circumstances, could have been used to add to the productive capacity of the country. There is often, but not always, a tradeoff that must be made between these other goals and simplicity. The simplest tax system is not necessarily the best, but neither is all of the complexity in the current system necessarily serving a useful purpose.

[34] See Shaviro (2005) for an insightful discussion of these issues.

Table 1: Estimates of the Compliance Costs of the U.S. Federal Corporation Income Tax (2005 dollars)

Study	Year	Companies Covered	Per Firm Compliance Cost	Total Compliance Cost	% of Revenue
Slemrod and Blumenthal (1993)	1992	~1300 largest U.S. companies	$1.55 million	$2.02 billion	2.7
Slemrod (1997)	1996	~1300 largest U.S. companies	$1.80 million	$2.34 billion	n.c.
Slemrod and Venkatesh (2002)	2000	Smaller than largest 1300, more than $5 million of assets	$104,000 - $110,000	$23.0-$24.4 billion	n.c.

n.c. = not calculated.
These figures all refer to the compliance costs of the federal income tax system. Of the total compliance costs, including those incurred with respect to state income taxes, in 1992 an estimated 70% were due to the federal system; in 1996 it was 75%; in 2000 it was 74.5%. Thus, to obtain the estimate for total compliance costs, one must multiply the compliance cost figures in the table by 1.43, 1.33, and 1.34 for 1992, 1996, and 2000, respectively.

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