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# THE ECONOMICS OF CORPORATE TAX SELFISHNESS

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**ABSTRACT**

This paper offers an economics perspective on corporate tax noncompliance. It first reviews what is known about the extent and nature of corporate tax noncompliance and the resources devoted to enforcement. It then addresses the supply of corporate noncompliance—the industrial organization of the tax shelter industry—as well as the demand for corporate tax noncompliance, focusing on how the standard Allingham-Sandmo approach needs to be modified when applied to public corporations. It then discusses the implications of a supply-and-demand approach for the analysis of the incidence and efficiency cost of corporate income taxation, and the very justification for a separate tax on corporation income. Along the way it addresses policy proposals aimed at increased disclosure of corporate tax activities to both the IRS and to the public.



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## 1. Introduction

The corporation income tax occupies a tenuous place in the economics of taxation. The theory of taxation stresses the importance of looking through the corporate entity and tracing the incidence of the tax to the shareholders, workers, and customers. In a comprehensive income tax, there is no reason to tax the income generated by corporations any differently than any other source of income, and justifications have centered on its role as a backstop or withholding device for an imperfect personal income tax. The sharp decline in the relative size of federal corporation income tax revenues since the 1950's, from 6.4 percent of GDP in 1951 to less than 1.5 percent of GDP in the last few years, has been welcomed by some as a benign development. Indeed, part of the decline has been due to a process of "do-it-yourself integration," as a growing fraction of businesses operate as pass-through entities such as S corporations and limited liability companies, and as indebtedness increases.

Many recent events suggest that the time is ripe for a rethinking of how we tax corporations. By setting a maximum personal tax rate of 15 percent on dividends, the 2003 tax act featured the most fundamental change since World War II in the taxation of corporate-source income and took a significant step in the general direction of integrating the corporate and personal income tax systems. This change in the tax law happened amidst much controversy regarding abusive avoidance and evasion among corporations, the political fallout of which may partly explain why the integration came in the form of tax reductions in the personal tax rather than the corporate tax. The Enron scandals, although focused on improper accounting, brought to light the extensive use of Enron subsidiaries in tax haven countries, and the misdeeds of the executives of other corporations, such as Tyco, have apparently included tax evasion of one sort or another. A series of articles in the *New York Times*, written by David Cay Johnston, has focused attention on highly sophisticated tax avoidance schemes. Finally, the deficit pendulum has swung back to the large positive position. Whenever it does, politicians look for apparently "painless" ways to raise revenue and look to the IRS to expand its enforcement rather than curb its zealousness; indeed, audit resources are starting to increase slightly, after some years of very large declines.

My purpose in this paper is to offer an economics perspective on the issue of corporate tax reporting behavior, and to focus on what economics can contribute to the policy debate about corporate tax noncompliance. If successful, this review will help to clarify the issues involved and identify where further research is especially needed. Before proceeding, though, I owe the reader an explanation for the title of the paper.

I chose the word selfishness in the title of a paper about corporate tax reporting, including evasion and abusive avoidance behavior, for several reasons. First, I want to avoid getting bogged down trying to distinguish between what technically is (illegal) tax evasion and what is (legal) tax avoidance. Second, the title signals my intention to discuss the social responsibility of the corporation, and whether this is a case in which private agents pursuing their own "selfish" interest can promote the public good. Finally, I want to emphasize the importance of addressing what is the corporate "self." Of course, to economists the word selfishness does not have the same negative connotations it suggests to others. At some point in our first economics course, we read the words of Adam Smith: "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest." Smith argued that each individual seeking to better the lives of his or her family (often referred to as 'selfish" behavior) can, if under the appropriate institutions, promote the public good. But the "invisible hand" promotes the general welfare only under certain conditions about the institutional framework and incentives. I explore to what extent it applies to corporate tax avoidance and evasion.

## 2. Some Facts

### 2.1 Corporate Tax Noncompliance

I begin with corporate tax noncompliance: corporation income tax that legally is owed but is not reported or paid. Due to the nature of tax noncompliance, getting a handle on its magnitude is not easy. What we do know is based on the Internal Revenue Service (IRS) Tax Compliance Measurement Program, or TCMP, that featured intensive examinations of a random sample of tax returns filed for tax years from the early 1970's until 1988; the corporate tax gap measures are primarily based on TCMP studies done in

1977, 1980 and 1983 and on routine operational audits from the mid-1980's. By comparing these examined returns with the original returns as filed, supplemented by other evidence, the IRS estimated the total amount of underreported income and overstated subtractions in each of these years (and projections for later years) and the total loss of tax revenue--the "tax gap." The estimates for the corporation income tax gap come from three sources. For small corporations the IRS used TCMP data, adjusted for underreporting unlikely to be detected by the TCMP. For medium-sized corporations, the gap was calculated by estimating, based on operational (i.e., non-TCMP) audits, how much tax revenue would have been generated if the IRS examined all these corporations' tax returns. Finally, for large corporations, because the IRS routinely examines a high percentage of these companies, examination results were used as the basis of estimates of the tax gap.[1] The IRS has made tax gap estimates for tax year 2001, but not later, based on a rough projection from the 15- to 20-year-old TCMP and other data, assuming that the compliance rates for each major component have not changed in the past two decades.[2] Corporate underreporting in 2001 is estimated at $29.9 billion, of which corporations with over $10 million in assets make up $25.0 billion.[3] As a benchmark for comparison, estimated individual underreporting in 2001 is $148.8 billion. Compared to estimated 2001 tax year receipts paid voluntarily and in a timely fashion of $142.4 billion and $930.1 billion for corporate and individual income tax collections, respectively, the underreporting rate (calculated as underreported tax divided by receipts plus underreported tax) is 17.4 percent and 13.8 percent for corporations and individuals, respectively.

The Bureau of Economic Analysis (BEA) calculates an annual measure of corporate misreporting, in order to adjust the National Income and Product Accounts (NIPA) measure of corporate profits, which is based on data from corporate tax returns as

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[1] This description is based on U.S. General Accounting Office (1988). One potentially important problem with this data is that the examination reports do not distinguish between adjustments that change the *timing* of tax liability and adjustments that change the liability in a way that will not be offset in future years. For this reason it is difficult to know the present value of the recommended adjustments from IRS examinations.

[2] The tax gap numbers are drawn from Internal Revenue Service (2004a).

[3] Underreporting is only one of the three components of the total tax gap, which is estimated to be $282.5 billion. The other two components are nonfiling and underpayment. There is no estimate for corporate nonfiling, and underpayment is a quite different issue.

filed.[4] The BEA estimate for corporations reporting a profit is based on actual tax settlements--the change in income recommended by the IRS examination team reduced by the overall ratio of actual settlements to recommendations.[5] For loss companies, the adjustment is calculated by multiplying total losses by an estimate of the percentage by which losses are reduced during audit. Table 1 shows the NIPA estimates of corporate tax misreporting since 1988, in total dollars and as a percentage of misreporting plus total receipts less deductions, the tax-return-based measure that the BEA procedures begin from.[6] This ratio was 13.8 percent in 2000, compared to the 17.4 percent figure based on the IRS methodology that extrapolates from two-decades-old data assuming no change in compliance rates. This series shows an increase in the misreporting rate since the mid-1990's, but puts the 2000 misreporting rate below the rates of the 1989 through 1992 period. The complete series (that begins in 1929) shows that this ratio never reached 10 percent until 1981, and peaked in 1983 at 17.9 percent.

### 2.2 Abusive Corporate Tax Shelters

For conceptual reasons it is impossible to measure how much corporate tax avoidance—legal actions taken to reduce tax liability--is going on. If avoidance is *anything* that corporations do to reduce their tax liability, it could include such activities as purchasing tax-exempt bonds, which is certainly legal, not at all nefarious, but also certainly done purely for tax reasons. Recent attention has focused on so-called "abusive" tax transactions, including shelters. The General Accounting Office defines abusive shelters to be "very complicated transactions promoted to corporations and

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[4] The BEA methodology is discussed in Petrick (2002, p. 7).

[5] In contrast, the IRS tax gap measures are based on the recommendations of the return audit, unadjusted for how much tax was ultimately assessed after any appeals process. This is defended in part as an approximate adjustment for the fact that IRS examiners do not detect all underreporting. Another methodological difference is that the BEA projects the average amount of recommended adjustment per return to all returns by multiplying this figure by the total number of returns, thus implicitly assuming that the examined returns are representative of all corporate returns. In contrast, the IRS tax gap methodology for mid-sized corporations (with assets between $10 and $100 million) projects the results of audited returns to the whole population with some acknowledgment that returns audited are not representative of the entire population, and indeed have higher unreported income than unexamined returns. The first methodological difference would make the BEA estimates of underreporting lower than the IRS tax gap measure, while the second methodological difference would make it higher. I am grateful to Alan Plumley and Eric Toder of the IRS for insights about these issues.

[6] Note that the NIPA table refers to misreported income, not understated tax liability as in the IRS corporate tax gap studies.

wealthy individuals to exploit tax loopholes and provide large, unintended tax benefits."[7] This is as good a definition as any, but it clearly is not a precise definition. Recently an IRS contractor estimated the tax revenue loss from abusive tax shelters in 1999 to be between \$14.5 and \$18.4 billion, 50 percent higher than in 1993.[8] This estimate was based on IRS's Statistics of Income data for the largest U.S. companies, Compustat financial data, and surveys of IRS field offices. Other estimates based on familiarity with the industry, but not quantitative analysis, have been in the same ballpark.[9] Extrapolating these estimates to 2001 suggests that abusive tax shelter may equal more than half of the total corporate tax gap.

There is also indirect evidence that tax shelters cost the government a large and growing amount of revenue. Several studies have documented a large and growing gap between the book income reported on public corporations' financial statements and the tax income of corporations, which remains even after eliminating what arises from known differences in the accounting procedures used for book and tax income.[10] As the authors of these studies admit, even the adjusted difference might have nothing at all to do with either evasion or abusive tax shelters. But as of yet there is no better explanation.

### 2.3 Corporate Tax Enforcement Resources

There is no disputing that IRS resources devoted to enforcement have dropped drastically since 1996. Between fiscal years 1996 and 2003, the number of examination full-time-equivalent positions (revenue agents and tax auditors) dropped by 26 percent, accompanied by a sharp decline in the fraction of returns that are examined.[11] Table 2 shows how this decline in resources translated into declines in the percentage of corporation returns subject to examination, known as the coverage ratio. As an example,

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[7] U.S. General Accounting Office (2003, p. 1). The word "unintended" refers to the intentions of the legislators, not the promoters or taxpayers.
[8] U.S. General Accounting Office (2003, p. 13). Several caveats to the estimates are presented there, including the warning that "Both IRS and contractor officials believe the …results are more useful to predict returns with abusive shelters than they are to value the size of the abusive shelter problem." (p. 13)
[9] The most widely cited of such estimates is Bankman (1999), who estimated the annual revenue loss from abusive tax shelters at \$10 billion.
[10] See Department of the Treasury (1999), Desai (2003), Manzon and Plesko (2001), and Mills, Newberry, and Trautman (2002).
[11] According to IRS (2004b), Table 7a, the number of total examination FTEs was 17,129 in fiscal year 1996, and was 12,612 in 2003.

the coverage ratio for corporations with assets between $1 million and $5 million fell from 7.92 percent to 1.55 percent from fiscal year 1997 to fiscal year 2003, and from 51.67 percent to 29.73 percent for corporations with assets over $250 million. Among Subchapter C corporations (that are subject to the corporation income tax), the coverage ratio rises monotonically with size, and the 1500 or so largest companies that are in the Coordinated Industry Case program are for the most part subject to annual, even continual, audit. For these companies the decline in enforcement resources would be reflected not in whether there was an audit, but in the effectiveness of the audit.[12]

Of course, the declining coverage ratio and possibly declining quality of examinations could be a *cause* of increased evasion and abusive shelter use. Although there is no evidence that establishes this, it would be consistent with the standard economic model of evasion, discussed below.

## 3. The Economics of Corporate Tax Selfishness

### 3.1 The Economic Theory of Tax Evasion: Demand

The standard economics model of the demand for tax evasion on the part of taxpayers is spare but powerful.[13] It poses the decision about whether to evade and, if so, how much to evade, as a choice regarding tax evasion as a choice under uncertainty—a gamble—in which there is a tradeoff between a gain if the evasion is undetected and a

[12] Note that as of 2002, the Large and Mid-Size Business Division (LMSB) of IRS was expecting to increase the portion of its examination resources devoted to combating abusive shelters from 3 percent in 2002 to 20 percent in 2004. See U.S. General Accounting Office (2003, p. 21).

[13] There is a large non-economics literature--by criminologists, sociologists, lawyers, and even anthropologists--on corporate crime generally, that sometimes alludes to corporate tax evasion. The classic work on criminology that introduced the term "white collar crime" (Sutherland 1940, 1949) paid brief attention to corporate tax evasion, but didn't elaborate on its distinctive characteristics. Much of the modern literature adopts a perspective on corporations that is familiar to economists: looking through the legal entity to the individuals within the corporation. Conley and O'Barr (1997, p. 6) assert that "to say that the corporation has engaged in misconduct is to say that some of the people have misbehaved in ways that the law chooses to attribute to the corporate entity." Sociologists usually stress that organizational dynamics can generate actions different from those that individuals might take on their own. For example, Clinard and Yeager (1980, p. 43) say that "the first step in understanding corporate illegality is to drop the analogy of the corporation as a person and analyze the behavior of the corporation in terms of what it really is: a complex organization."

loss if the evasion is detected and penalized.[14] In this framework, noncompliance is determined by the probability of detection and punishment, the penalty structure, and the risk aversion of the potential evader. The framework is entirely amoral: taxpayers are neither honest nor dishonest, but merely rational calculators of what is in their best interest. The fact that tax evasion is illegal is only relevant because, with some probability, it might incur a penalty. The fact that tax payments finance government services that the taxpayer values is also completely irrelevant, because each taxpayer in a large jurisdiction free rides on the tax payments of others.

The existing economics literature on the demand for tax evasion focuses almost entirely on evasion by individuals, not businesses.[15] However, for a number of reasons, understanding tax noncompliance of large, particularly publicly-held, companies may require a different conceptual framework. For individuals, it is natural to assume that risk aversion—meaning that the utility cost of a big penalty is greater than the utility gain from an equal dollar of tax saving—limits the amount of evasion that is optimal. This assumption is also plausible for closely-held small businesses whose owners' wealth is generally not well-diversified. In these situations, it is clear that the tax situation of the company and the tax situation of the owners are intimately related, and must be analyzed simultaneously. But the assumption of risk aversion seems unsatisfactory for a large publicly-held firm, because presumably the shareholders hold diversified portfolios, implying that the firm should behave as if it is risk-neutral, even if its shareholders are not. If the decision-maker acts in a risk-neutral manner, the model must contain some other factor that rules out corner solutions (i.e., no evasion at all if evasion is worse than a fair gamble, or reporting no tax liability at all if it is better than fair), such as more

[14] The seminal paper is by Allingham and Sandmo (1972). The subsequent economics literature on tax evasion and enforcement is surveyed in Andreoni, Erard, and Feinstein (1998) and in Slemrod and Yitzhaki (2002).

[15] An interesting exception is Andreoni (1992), who likens some business tax evasion to a last-resort loan from the IRS, with the IRS as a "loan shark;" Rice (1992), discussed below, finds some evidence that is consistent with this notion.There is also a small literature that addresses tax compliance by firms within the deterrence framework, assuming a unitary decision-maker. This strand of the literature, nicely reviewed in Cowell (2004), focuses on how the tax rate, probability of detection and penalty rate affect the two choices of evasion (usually expressed as the fraction of sales concealed from an output tax) and output, when there is a costly concealment technology. Some of the models in this tradition assume that the firm is risk-averse, while in others the firm is assumed to behave in a risk-neutral way.

evasion increasing the probability of detection or penalties. Changing the standard model in this way generally does not qualitatively alter the predictions of the model.

The implications of the separation between ownership and control in public corporations are more intriguing, for two reasons. First, many non-economist scholars, and some economists, argue that evasion choices made by individuals involve more than a cost-benefit calculation, and reflect the taxpayer's sense of duty, perception of the fairness of the tax system and trust in government and the political system more broadly.[16] There is, to be sure, much experimental and empirical evidence to suggest that people do not behave as free riders in all situations at all times and that taxpayer behavior may be affected by both intrinsic motivation (civic virtue, or duty) and extrinsic motivation (the threat of punishment).[17] If increasing extrinsic motivation—say with more punitive enforcement policies—"crowds out" intrinsic motivation by making people feel that they pay taxes because they have to, rather than because they want to, deterrence-based polices may be less effective than the standard economic model of evasion suggests. In this situation, compliance may be sustained by the perception that the tax authority acts respectfully toward citizens--while at the same time protecting the honest from the free rider--by giving taxpayers the benefit of the doubt when it finds a mistake, by sanctioning small violations more mildly, and by sanctioning large and basic violations more heavily.

It is, however, an open question whether public corporations' tax compliance behavior is motivated by civic virtue, and thereby can be influenced by the factors outside of the deterrence model such as the perception of fair treatment. For one thing, much of the behavior in question is arguably about (legal) avoidance, not (illegal) evasion.[18] There is a respectable view with a long tradition that tax avoidance raises no issues of ethics or virtue. The famed judge Learned Hand said: "Over and over again courts have said that there is nothing sinister in so arranging one's affairs so as to keep taxes as low as possible. Everybody does so, rich or poor, and all do right, for nobody owes any public duty to pay more taxes than the law demands. Taxes are enforced

[16] These new perspectives on tax evasion are critically reviewed in Slemrod (2003).
[17] Frey (1997 and elsewhere) has presented this argument.
[18] This statement applies to much of the tax avoidance behavior of individuals, as well.

exactions, not voluntary contributions."[19] According to this view, not taking optimal (from the corporation's point of view) advantage of legal opportunities for tax avoidance is like giving a gift to government--giving such gifts may reflect civic virtue, but not giving them is not a sign of ethical failure. But not everyone agrees with Judge Hand. Referring to the recent spate of (legal) corporate inversions,[20] Senator Charles Grassley of Iowa, the Ranking Republican member of the Finance Committee, remarked that "these expatriations aren't illegal, but they're sure *immoral*. During a war on terrorism, coming out of a recession, everyone ought to be pulling together. If companies don't have their hearts in America, they ought to get out."[21]

Because there is often no clear, bright line between avoidance and evasion, corporate tax planning is a matter of *creative compliance*, under which the companies "set their lawyers to work on the legal form of their activities to package or repackage them in ways they can claim fall beyond the ambit of *dis*advantageous, or within the ambit of *ad*vantageous, law."[22] To be sure, creative compliance is facilitated because the tax law is exceedingly complex and open to alternative interpretations, and this undoubtedly facilitates ethical rationalizations of positions taken. But how far this is pushed depends on a willingness to aggressively seek out alternative interpretations and innovative legal forms that take advantage of gaps in the law, and the unanticipated effects of combining parts of the law.

Little is known about how and why, holding constant the chance of getting caught and the penalty for noncompliance, corporations differ among themselves in their aggressiveness regarding pushing the envelope of the tax law, and whether their behavior would respond to initiatives designed to strengthen intrinsic motivation. It is plausible that this is affected by whether the managers view paying taxes as a civic virtue or duty, and so abusive corporate avoidance has an ethical dimension just as evasion does, and may be responsive to non-deterrence aspects of the tax system. But a manager acting in the interest of the shareholders arguably should repress his or her own civic virtues, and

[19] Hand (1947).
[20] Inversion refers to when a U.S. corporation liquidates and re-forms as a company incorporated in a low-tax foreign country that operates a territorial system of taxation (that is, it taxes only income earned within its borders), usually in order to reduce its U.S. tax liability on income earned outside of the United States. See Desai and Hines (2002).
[21] Grassley (2002).
[22] McBarnet (2001) develops this perspective.

not be distracted from profit maximizing. In the classic-modern statement of this view, Milton Friedman argued that corporate executives as employees of the owners of the business have a responsibility to increase profits “while conforming to the rules and laws of society.”[23] Friedman directed his argument at those who argue that corporations should contribute to social causes, which he characterized as spending the stockholders’ money through decreased returns, spending the customers’ money through higher prices, and spending the employees’ money through lower wages. These causes may or not be worthwhile, argued Friedman, but the individuals whose money is being spent should make those decisions on an individual basis. Friedman’s reference to conforming to the law makes clear that he was not advocating “optimal” tax evasion by corporations. But, by extension, his argument does apply to tax avoidance in the sense mentioned earlier, that *not* pursuing all legal avenues to reduce tax liability constitutes a contribution to government: if shareholders want to make contributions to the Bureau of Public Debt, that is their right, but widely-held corporations should not. Presumably, though, Friedman would approve of a corporation reining in its tax aggressiveness if, for example, public disclosure of its behavior would damage the public image of the company and thereby drive away some customers or investors. Responding in this way is not a contribution to a social cause but rather a defensive investment to increase profits and, ultimately, share price.[24]

How tax-aggressive the shareholders want the corporation to be has to be conveyed to the managers who make such decisions. How this gets conveyed is ignored in nearly all of the small existing literature on business tax noncompliance, which assumes that the firm owner makes the tax reporting decision without delegating decision-making responsibility.[25] Although this assumption makes sense for small, closely-held businesses, in a large, publicly-held corporation decisions about taxes (and, *inter alia*, accounting) are not made by the shareholders directly but rather by their agents, whether that is the chief financial officer or the vice president for taxation. In

[23] Friedman (1970).
[24] Many of these issues have been addressed in the context of corporate environmentalism.
[25] One exception is Chen and Chu (forthcoming), who investigate corporate tax evasion with a standard principal-agent model in which a risk-neutral owner of a firm hires a risk-averse manager. They focus on the efficiency loss due to the separation of management and control, and do not address the relative efficacy of penalties on the principal and agent, a key focus of Crocker and Slemrod (forthcoming), discussed below.

order to align the incentives of the decision-makers with the interests of the shareholders, the shareholders can tie the decision-makers' compensation, explicitly or implicitly, to observable outcomes such as the average effective tax rate or after-tax corporation profitability that affect the share price, or else tie compensation directly to the share price, as through the granting of stock options or restricted stock.

In this setting the insights generated by the standard deterrence model of the demand for evasion may not apply. For example, if penalties for evasion apply to the agent, the company can alter the compensation contract with the tax director, to offset the intended consequences of IRS policy. Enforcement strategies directed at the tax director and at the corporation itself may have different impacts on corporate behavior. Because each of these policies is available to the government, it is valuable to know whether there is an *a priori* reason to prefer one to the other.[26]

That tax departments are increasingly counted on as innovative profit centers and that tax managers are increasingly provided incentives to produce profit is consistent with evidence from a 2001 survey of corporate tax departments.[27] Of the various measures used to evaluate the performance of tax departments, the one most often cited was the savings, or value added, they provided: 86 percent cited this performance measure, up from 75 percent in 1997. Of those 86 percent, 63 percent said that this measure affected the compensation of tax department personnel. The effective tax rate was cited as a measure used to evaluate performance by 58 percent of respondents, up from 48 percent in 1997. Furthermore, the number of mentions of each of three possible performance measures that included the word "accuracy" declined substantially between 1997 and 2001. In a separate survey of Fortune 1000 tax directors, 46 percent of the directors

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[26] It has not always been that way under U.S. law. Although in the 19th century courts held corporations responsible for an assortment of crimes under the strict liability rule—that is, when "intent" is not relevant—courts demonstrated an aversion to punishing corporations for such crimes. Before that the prevailing doctrine held that (1) corporations are legal artifacts that do not have a mind or soul, and thus cannot have criminal intent, (2) the corporation is not authorized to do unlawful acts so if they do, they do in their personal capacity, and (3) fines are injurious to stockholders rather than the agents who are directly responsible for the violations of the law. It was only in 1909, in New York, C. & H. R. R. Co. v. United States 212 U.S. 481, that the Supreme Court established clearly that corporations could commit and be punished for a large class of crimes. See Sutherland (1949, p. 52). The issue of whether corporations can be punished has a long history. In 1250 Pope Innocent IV stated that corporations could not be excommunicated because they, unlike their owners, had neither minds nor souls, and therefore could not sin.

[27] Hollingsworth (2002, pp. 67-8).

ranked the effective tax rate as the most important factor driving the tax department's overall objectives, compared to 16 percent who ranked compliance first. Even more strikingly, when asked about the single most important factor used to evaluate the performance of the tax department, 36 percent said the effective tax rate, while *none* said accuracy.[28]

Whether enforcement directed at the company or at the tax director is more effective can be addressed in a costly state falsification model, in which the tax manager is assumed to possess private information regarding the extent of legally permissible reductions in taxable income, and may also lower tax liability through illegal evasion.[29] In such a model only the latter has real costs, but the shareholders cannot distinguish between the two so, to the extent it is incentivized, the tax manager's compensation must rely on measures, such as average tax rates, that depend on both legal avoidance and illegal tax evasion.[30] The incentives of the manager to engage in tax evasion are affected by the nature of the contractual relationship between the shareholders of a firm and the manager of the company's tax affairs, and one can characterize formally how the optimal incentive compensation contract for the manager will change in response to alternative enforcement policies imposed by the IRS.[31] In this model penalties imposed on the manager directly are more effective in reducing evasion than are those imposed on shareholders, because the latter are diluted when they are conveyed to the tax decision-makers via changes in the compensation contract that adjusts partially to the incentives generated by increased sanctions against illegal evasion.[32]

This framework provides some insight into a policy initiative that has attracted some attention recently: public disclosure of certain bottom-line items, such as tax

[28] Clark, Martire & Bartolomeo, Inc. (2000).
[29] Crocker and Slemrod (forthcoming).
[30] The model assumes that information about how much evasion occurred becomes public information too late for it to be part of the compensation contract.
[31] A literature in the law and economics field investigates the socially optimal division of sanctions on corporations and individual employees for social harms generally. For example, Kraakman (1984) emphasizes the possibility that the corporation's assets are inadequate to pay for the harm. Polinsky and Shavell (1993) argue that the total magnitude of public sanctions may exceed the sanctions that a firm can impose on its employees.
[32] The model does not consider another possible effect of imposing penalties directly on managers—that over time tax managers will be drawn from people who have a relatively low cost of a given monetary penalty.

liability, from corporation income tax returns.[33] It suggests that public disclosure will facilitate performance-based compensation for corporate tax managers, because it would enable benchmarking of their performance against the performance of competitors subject to unobservable but correlated shocks to the company's own tax situation. Thus, any reduction in evasion due to corporations' wish to avoid being publicly labeled a tax avoider would to some extent be offset by the improved ability of corporations to fine-tune the incentives for tax minimization they offer their tax directors.

The same modeling framework can address the fact that, as recent corporate scandals attest to, compensation contracts that reward managerial performance also reward misreporting by managers of indicators of that performance, such as income. To be sure, there are principal-agent models that can accommodate either the problem of "hidden action" (when the actions of the managers are unobservable) or the problem of "hidden information" (when the information provided by managers cannot be verified), but not both. Recent research has, though, formalized how the optimal design of managerial compensation balances incentivizing the managers and minimizing the cost of falsified information.[34] In general the optimal contract does not eliminate accounting fraud, as to do that would too greatly limit the incentives provided to the manager to take actions that legitimately increase earnings. The next step in this research agenda is to see what insights are generated by a model in which both accounting reports and tax reports can be falsified, and there is some cost to having the two reports diverge. In such a framework, the proposed new M-3 schedule on corporation tax returns, designed to make differences between financial accounting income and taxable income more transparent, increases the amount of information provided to the IRS.

The attention to managerial compensation suggests that any trend toward increased corporate tax noncompliance could be the result of the proliferation of stock options and other incentivized compensation. However, this explanation leaves open

[33] See Lenter, Shackelford, and Slemrod (2003) for a discussion of the arguments for and against this proposal.
[34] Crocker and Slemrod (2004). See also Goldman and Slezak (2003).

whether the relationship is causal or whether both trends resulted from a change in "corporate culture."[35]

The most basic predictions of the deterrence model as it relates to the demand for corporate tax noncompliance--that higher penalties and higher probabilities of penalties being imposed deter evasion--have not been subject to much empirical testing. Some intriguing empirical patterns did emerge from a careful econometric study of small (with assets between $1 and $10 million in 1980) corporations based on TCMP data.[36] It showed that compliance is positively related to being publicly traded and in a highly regulated industry, so that characteristics that assure public disclosure of information also tend to encourage better tax compliance.[37] Second, the empirical analysis suggests that firm profitability exerts two opposing effects. Managers of corporations whose profit performance falls short of its industry norm may resort to noncompliance as a means of shaving costs. In contrast, high-profit companies may take advantage of their greater ability to underreport income without being audited. Finally, although the reporting gap grows with value added as a measure of firm size, the ratio of noncompliance to value-added declines with firm size, suggesting that noncompliance is a regressive phenomenon, at least among this group of smaller companies.[38]

There is some empirical evidence linking how executives are compensated and the likelihood of accounting manipulation and fraud. Companies whose CEOs have relatively high amounts of equity incentives, in the form of unrestricted stock and immediately exercisable options, are more likely to engage in earnings *management* by reporting small earnings increases more than small earnings decreases and also reporting long strings of increasing earnings.[39] Earnings management intensity, as measured by the absolute value of discretionary accruals, is increasing in the amount of stock-based

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[35] Anecdotal familiarity with corporate tax departments suggests that there is (or was, until recently) a large cross-sectional variation in corporate culture relating to tax aggressiveness. What underlies this variation has not been explored much by economists, although see Kreps (1990) for an essay that relates corporate culture to establishing a reputation for reasonably resolving unforeseen circumstances. However, because how tax-aggressive a company is seldom publicly revealed, it is unlikely to affect this sort of reputation.
[36] Rice (1992).
[37] Tannenbaum (1993) argued the Rice (1992) finding that publicly-traded companies have higher compliance may have nothing to do with public disclosure, and instead might reflect the fact that publicly-traded companies are more likely to have managers who are independent of its owners, and therefore are less fearful of commingling the owners' personal affairs with those of the corporation.
[38] See also Morton (1992) on the characteristics of small business tax noncompliance.
[39] Ke (2002).

compensation (including options) and bonuses, and decreasing in salaries.[40] There is mixed empirical evidence on the relationship between the form of executive compensation and accounting *fraud*. An early study based on a sample limited to companies in high-growth industries found no evidence of a link between executive compensation (specifically, whether the firm had an earnings-based bonus plan) and SEC enforcement actions, but a more sophisticated recent analysis of firms accused of accounting fraud by the SEC found that the probability of accounting fraud is increasing in the percent of total executive compensation that is stock-based, controlling for the financing needs and governance characteristics of the firm.[41] Thus, there is empirical support for the notion that a byproduct of incentivizing executive compensation to align their interest with the shareholders is an increased incentive to falsify accounting reports. The same may be true of tax reporting, but this has not yet been demonstrated. Nor are the theoretical issues identical, because with tax evasion there is a third party other than the shareholders and the managers—the IRS, representing all taxpayers' interests—and therefore in some situations both the shareholders and managers can profit at the expense of the taxpayers.

Finally, there is intriguing evidence linking the tax reporting behavior of companies to the tax reporting behavior on their personal tax returns of the managers of these companies. For companies with assets of $10 million or less, noncompliant firms are three times more likely to be managed by executives who have understated personal taxes, even when the measure of personal noncompliance excludes business-related income.[42] This result suggests that, at least for relatively small corporations, managerial preferences play a role in determining corporate tax noncompliance. There is no systematic evidence demonstrates that this is also true for large public companies, where the separation of ownership and control is more of an issue, although there is certainly anecdotal evidence (e.g., Tyco's accounting fraud and the personal tax evasion of its

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[40] Gao and Shrieves (2002) and Cheng and Warfield (2002).
[41] Dechow et al. (1996) and Erickson, Hanlon, and Maydew (2004b).
[42] Joulfaian (2000). The relationship is less strong when the measure of personal noncompliance excludes business-related income. This evidence may in part reflect endogenous discovery on the part of the IRS: if they find that someone evades on their individual tax account, they look at the companies they are involved with, and vice versa.

CEO, Dennis Kozlowski) of the two going hand in hand when corporate governance is inadequate.

### 3.2 The Industrial Organization of the Tax Shelter Business: Supply

Another shortcoming of the traditional economic model of tax evasion based on deterrence is that it considers only one side of the market for tax noncompliance—the demand on the part of taxpayers. The model's implicit assumption is that there is an unlimited supply of tax evasion opportunities at a constant "price." This assumption seems reasonable when the act of evasion is, as in the traditional tax evasion model designed with individual evasion in mind, envisioned as a simple underreporting of income.[43] It is a less attractive assumption when the issue is abusive tax shelters, where there is a sector comprised of companies with specialized information about the tax law and financial transactions that combine aspects of the tax law to produce highly complicated tax shelters and market them to corporations.

Many believe that this market has grown substantially in recent years. *Fortune* magazine recently reported that "with encouragement from shelter hustlers, a new attitude is spreading: that the corporate tax department is a profit center all its own, and that a high effective tax rate is a sign of weakness. 'A potential client once said he would hire the firm if we could get their tax rate down, because it was higher than their competitors' and they were embarrassed,' says one accountant."[44] The Joint Committee on Taxation's report on Enron used the same language, asserting that "Enron's tax department became a source for financial statement earnings, thereby making it a profit center for the company."[45] The former Assistant Secretary of Treasury for Tax Policy, Pamela F. Olson, also laid part of the blame for abusive tax shelters on the promoters, asserting that "the sophistication of the transactions, combined with the cultural laxity engendered among some taxpayers and promoters in the 90's, made them possible."[46]

[43] When the act of evasion consist of supplying labor to the informal sector, the return to that activity may decline as entry increases.
[44] Novack (1998).
[45] U.S. Congress, Joint Committee on Taxation (2003, p. 8).
[46] Olson (2003, p. 2).

The ubiquity of tax shelters is reflected in a recent survey of the tax professionals retained by medium-sized corporations.[47] It revealed that 69.4 percent had been asked by clients to look into tax shelters, and 55.5 percent had been approached by promoters advertising tax shelters; only 7.5 percent admitted actually setting up a tax shelter for a client. Undoubtedly, nearly all large corporations have been solicited by tax shelter promoters, and nearly all have considered pursuing them.

Is there a supply-side explanation for the post-1990 growth in tax shelters? There has been little systematic investigation of this issue, although a number of developments over this period may have contributed to a reduction in the effective cost of providing a shelter. One is the availability of increasingly sophisticated financial instruments that facilitate eliminating the real risk exposure caused by a shelter and thereby isolating the tax benefits. Another is the consolidation of the shelter business among the Big Five accounting firms that can amortize the cost of developing a shelter over many purchasers. Finally, some court decisions that favored a more literal reading of the tax laws reduced the expected penalties associated with aggressive tax shelters.[48]

Understanding this sector is particularly important because several recent IRS enforcement initiatives have focused on the promoters of tax shelters rather than the taxpayers themselves, in part because of the difficulty of detecting taxpayer use of shelters even if the IRS has access to the company's financial information and the tax return. For example, promoters (and taxpayers) are now required to disclose or register transactions and maintain investor lists for six categories of transactions: tax avoidance transactions, transactions that generate large tax losses, transactions that generate large book-tax differences, transactions with contractual protection, transactions that are marketed on a confidential basis, and transactions that result in tax credits even though the underlying assets are held for a brief period of time. The IRS Commissioner has said that "by auditing promoters and obtaining investor lists, we [IRS] can deter the promotion of as well the thirst for such products."[49] (Notably, though, there is currently no penalty for a taxpayer's failure to disclose a reportable transaction, and the penalties on promoters for the failure to register a transaction or the failure to maintain lists of

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[47] Slemrod and Venkatesh (2002).
[48] I thank Joe Bankman for suggesting this characterization of the supply-side changes.
[49] Everson (2003, p. 7).

participating taxpayers are low.) Moreover, Circular 230, which establishes standards of ethical conduct required of professionals who practice before the IRS, is being reviewed to see if it can be revised to help curb abusive transactions.

The IRS Commissioner has also stressed the importance of reacting quickly: "Failure to identify and react to abusive transactions quickly…can allow the transaction to spread…"[50] However, adapting theoretical models of patent races to the case of tax shelters suggest caution regarding the success of a strategy of reforming tax laws and regulations to reduce the effectiveness of elaborate tax avoidance techniques as soon as they are identified. Unless the tax law changes and new regulations can be made retroactive, which may be undesirable on other grounds, a highly reactive policy may encourage the rapid development of new tax avoidance techniques by innovators and thereby place a great premium on being the first to develop and use a new tax avoidance method.[51] It might make more sense for the IRS to immediately publicize the tax avoidance techniques they uncover, in the hope of discouraging others from subsequently developing other methods. Indeed, the Treasury is considering implementing "yellow light" rulings, public announcements that the IRS is aware of and evaluating a class of transactions, even though the analysis may not be complete.[52]

The industrial organization of the tax promoter and tax planning business may be affected by the Sarbanes-Oxley bill passed in 2002. As of now, neither Sarbanes-Oxley nor Securities and Exchange Commission (SEC) rules prohibit a company's audit firm from providing tax services that are pre-approved by the company's audit committee. However, the SEC distinguished traditional tax compliance and planning services from the marketing of novel, tax-driven, financial products, referring to the Conference Board's Commission on Public Trust and Private Enterprise that, as a "best practice," auditors should not provide advice on "novel and debatable tax strategies and products that involve income tax shelters."[53] The American Institute of Certified Public Accountants has also suggested that "advice on tax strategies having no business purpose other than tax avoidance is an appropriate dividing line for activities that should be

[50] Everson (2003, p. 4).
[51] This point is made in Hines (2004).
[52] Everson (2003, p. 6).
[53] Conference Board (2003, p. 36).

prohibited to auditing firms registered under the Sarbanes-Oxley Act."[54] The newly formed Public Company Accounting Oversight Board has stated that "by looking at compensation, promotion, and retention issues, our inspections will identify a firm's policies and practices that create incentives for firm audit personnel to promote such transactions to their clients."[55] At its March 2003 meeting, the Board of Administration of the California Public Employees' Retirement System voted unanimously to withhold its vote for directors if necessary and take additional actions to help ensure the independence of the external auditor, including that the auditor should not be engaged in any tax-related consulting work with audit clients outside the scope of the audit .

### 3.3 Supply Meets Demand

Once we recognize that for some types of abusive avoidance or evasion the supply side is relevant, we can gain insight from the theory of tax incidence, which addresses who ultimately bears the burden of a tax or other aspect of the tax system. Incidence theory suggests that the answer depends on the elasticity of supply relative to the elasticity of demand. The more elastic is demand relative to supply, the less likely is the burden likely to reside on the consumer of the taxed product, and the more likely it is to be shifted away through price changes. Because in the long run the resources used by tax shelter promoters probably do have good alternative uses—suggesting that the long-run supply elasticity is high—penalties to either the taxpayer or the promoters will in the long run be borne by the taxpayers. But the short-run incidence may differ, depending on the structure of the tax shelter sector.

More intriguingly, the foregoing discussion calls into question a fundamental tenet of tax incidence theory—that the impact of a tax does not depend on which side of the market remits, or has the legal liability for, the tax. Every public finance textbook features a supply-and-demand diagram illustrating how the incidence and efficiency effects of a tax on say, food, will be the same whether the supplier or consumer must pay the tax. (Sometimes it is unclear whether "pay" means "remit" or "is legally liable for.") Of course, any tax administrator will tell you that this ubiquitous textbook assertion is

[54] AICPA (2003).
[55] McDonough (2003, p. 9).

hopelessly naïve. When one accounts for the administrative and compliance costs of raising taxes, which side of the market remits the tax is not at all a matter of indifference. Indeed, the issue of whether income taxes should be collected at "source" figures prominently in the modern history of the income tax. The first modern British income tax, introduced in 1799 by Prime Minister and Chancellor of the Exchequer William Pitt, was judged to be a failure, mostly because it raised much less revenue than expected and was plagued with evasion. Its re-introduction in 1803 by Pitt's successor Henry Addington was a success, the key design change being the collection of revenues at source, which to this day remains the backbone of the British, and most other countries', income tax systems.[56]

The textbook equivalence of Pitt's and Addington's income tax did not apply to Great Britain two centuries ago, nor does it apply in many situations today. The point of tax collection is not immaterial, and often there are ways for the government to collect taxes that are economically equivalent according to the textbooks but are not equally efficient in practice. Consider how taxes on labor income are collected. The legal liability for the payment of income tax on wages and salaries rests on the worker, but via withholding employers remit 78 percent of total personal income tax. For most individual taxpayers, the act of filing a tax return is associated with a refund of money, not a payment. The IRS correctly believes that it is much more efficient to collect and monitor taxes remitted by a smaller group of employers compared to taxes remitted by a hundred million or so employees.

This discussion touches on one of the principal arguments for the corporation income tax—that it is an efficient way to withhold tax on behalf of shareholders. Richard Bird of the University of Toronto has stated this argument best: "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 customs barrier at the border."[57] Even in a completely integrated system, the point of collection can be either the corporation or the shareholder. Under the latter system, shareholders would report their share of the pre-corporation earnings as taxable income based on

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[56] The Pitt-Addington episode is wonderfully recounted in Farnsworth (1951).
[57] Bird (1996).

information provided to them by the company. If the corporation is the point of collection, each shareholder would receive a credit against tax liability equal to the share of corporation income taxes already paid (also based on company-provided information). As long as the corporate tax rate is near the top of the individual tax rate scale, the filing of individual tax returns would be, for most taxpayers, an occasion to get refunds rather than pay additional tax. Even absent integration, the responsibility for remitting a special tax on corporate-source income could, in principle, rest with the shareholders rather than with the corporate entity. If the shareholder is the point of collection, no crediting system is required.

The apparent proliferation of corporate tax shelters challenges the notion that the corporation is the more efficient node of collection. If there are economies of scale in the consumption of tax shelters, then collecting tax revenue from corporations might not be that much more efficient than collecting it from shareholders, after all. Indeed, because of the possibility of information reporting by corporations and matching this information with shareholders' income tax returns, dividend receipts are arguably much easier to monitor than corporation income.

Resolving this issue brings us back to the separation of ownership and decision-making. Consider this question: would a corporation be as tax-aggressive if the tax savings accrued directly to the shareholders by lowering their personal tax liability, and not to the corporation? If the answer to this question is yes, then the point of collection is immaterial to tax shelter policy. I suspect, though, that the answer is no, and that tax savings that accrue directly to the shareholders would not, on average, be pursued quite as aggressively by public corporations.

Public corporations also differ from individuals because they must report income in their financial statements. To be sure, the income concepts and rules governing financial statement income and taxable income are different. But in some areas, such as the choice of LIFO or FIFO inventory accounting, they must be the same. There is abundant evidence that corporations often make accounting decisions that increase tax liability but allow them to report higher income in their financial statements.[58] Indeed, there is evidence that companies that fraudulently overstated their financial statement

[58] See Shackelford and Shevlin (2001) for a review of this evidence.

income paid more tax than otherwise by so doing.[59] The apparent fact that many corporate managers are willing to pay more tax in order to report higher income on their financial statements could possibly be used as a tax enforcement instrument, by linking tax liability explicitly to financial statement income. Such a system was in place in 1987 and 1988, when the corporate alternative minimum tax base included one-half of any positive difference between financial statement income and taxable income.

This discussion about the positive economics of corporate tax reporting behavior highlights that there is a wide range of possible policy responses to corporate tax selfishness. First are the demand-side, deterrence instruments, such as increasing the probability of detection of evasion and the attendant penalties, with particular attention to whether the penalties are assessed on the corporation, corporate executives, or on the firms or individuals that comprise the supply side of tax shelters, promoters and so on. Second are policies that rely on the particular characteristics of the supply side of tax shelters, such as rules about disclosure of certain transactions to the IRS and public disclosure *of* the IRS regarding questionable tax arrangements it is investigating. The third, more loosely defined, policy category focuses on the unique nature of public corporations as a point of tax remittance. It includes tying dividend tax relief to corporate tax payments,[60] public disclosure of corporate tax liabilities, and an alternative minimum tax based on financial statement income.

## 4. Why Should We Care?

Corporate tax evasion and abusive tax avoidance are matters of public policy concern because they affect the fairness of the distribution of the tax burden as well as the resource cost of raising taxes--bread-and-butter concerns of public economics. What insights can an economics perspective offer to policy makers?

According to the economic theory of taxation, the incidence of corporation taxes must be traced back to which *people* ultimately bear the burden of taxation-- be they the

[59] See Erickson, Hanlon, and Maydew (2004a).
[60] The law could require corporations to have paid least the full 35 percent corporate tax rate on the amount of income that underlies any dividends in order for the dividends to qualify for preferential personal taxation. A variant of this approach was part of the 2003 Bush administration corporate tax proposal, but it did not survive in the legislation that established a maximum 15 percent tax rate on dividends.

company's shareholders, managers, workers, or customers; from this perspective, it is not interesting or even meaningful to say *corporations* are worse off or better off as a result of a particular tax change. How the burden of the corporation income tax is distributed among these groups remains highly controversial, and economic analysis focuses on how the tax is shifted through its effect on the pre-tax rate of return, the prevailing wage rate, and the relative price of corporate-produced goods. Note, though, that the theory of corporation income tax incidence addresses a tax policy that applies generally to all corporations. A singular act of evasion does not, by definition, apply to all corporations. Although a policy that facilitates evasion for *all* corporations might attract entry and thereby be shifted to customers through lower prices, a successful act of evasion by one corporation will not be met by increased pressure from competitors. Thus, the windfall gains to those companies that successfully play the tax lottery by acting aggressively probably accrue to the shareholders in their role as residual claimants, shared to some extent with the tax managers through incentivized compensation contracts.

If there are particular characteristics of corporations in certain sectors that facilitate evasion or abusive avoidance, such as the presence of corporate intangibles, the apparent gains that accrue to firms in these sectors via a lower effective tax rate will be partially eroded to the extent that competitors have similar characteristics, and partly benefit some other constituency, including this sector's customers. The same argument applies to the incidence of increasing deterrence instruments, such as the penalties for detected evasion. As discussed earlier, the industrial organization of the tax shelter promoter business will also be a factor in determining how the tax savings are shared among the taxpayers and the tax shelter promoters. For example, if the promoter business is perfectly competitive with free entry, in the long run most of the gains from tax shelter "innovation" will accrue to the taxpayers; if not, some of the gain will accrue to the promoters via high fees.[61]

Policies toward evasion and avoidance can, and should, also be evaluated as to how they affect the resource cost of raising taxes. The tools of efficiency analysis and optimal taxation can be extended in a fairly straightforward way so that they cover enforcement policy instruments, such as the audit rate and penalties for detected tax

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[61] See Gergen (2002) for a related discussion. The insights of Hines (2004) also apply to this issue.

misreporting.[62] Doing so reveals that tax policy instruments should be utilized so as to equalize the marginal efficiency cost per dollar of revenue raised, which should in turn equal the marginal social benefit of raising revenue. Expanding enforcement until the marginal additional revenue collected equals the marginal cost is, upon reflection, the *wrong* rule, because it mistakenly equates a transfer from the private sector to the public sector with the marginal social benefit of raising revenue.[63]

Opportunities for tax evasion and abusive avoidance can distort resource allocation in a variety of ways. It can cause inter-sectoral distortions because, for example, companies that otherwise would not find it attractive might have a financial subsidiary, or set up operations in a tax haven, to facilitate or camouflage abusive avoidance or evasion.

An important and fascinating question concerns the relationship between evasion or abusive avoidance and aggregate corporate activity. Could cracking down on this behavior decrease corporate investment, because it eliminates what was essentially a do-it-yourself tax cut? The answer depends on the relationship between the marginal cost to the taxpayer of avoiding (if there were *no* cost, no tax would be paid) and the volume of investment it undertakes.[64] If there is no relationship, then cracking down on avoidance and thereby increasing its cost will not decrease investment. More likely, the private cost of a given (absolute, not relative) level of avoidance is lower when the scale of real operations is higher, so that there is an implicit subsidy to investment. For example, shifting a given amount of taxable income to a low-tax country is more likely to escape transfer pricing rules the larger is the amount of real activity in the low-tax country. If this is true, an "avoidance facilitating" effect makes real investment in the low-tax country more attractive than otherwise, because increasing the scale of operations allows more avoidance.

[62] See Slemrod and Yitzhaki (1996) for how to generalize optimal taxation theory to cover enforcement policy, and the pitfalls of doing so.
[63] The question of optimal enforcement has an interesting international dimension. From the point of view of any one country, it makes more sense to go after tax shifted out of the United States by a U.S. taxpayer to another country as opposed to purely domestic evasion, because the U.S. taxpayer is at the margin indifferent to which treasury the payment is made. From a global perspective, which treasury receives the tax is only a distributional question, implying too many enforcement resources are devoted to enforcement of cross-border income shifting.
[64] This reasoning is developed in Slemrod (2001).

Neither tax evasion nor abusive tax avoidance directly creates value. Rather, tax selfishness of either form is about rent seeking—transferring resources to the successfully tax-minimizing company (more specifically, its stakeholders), and away from all other taxpayers or beneficiaries of government programs. Consider the following thought experiment: what if all corporate taxpayers were equally successful at reducing their tax liability by the same percentage, and in response the government increased corporate tax rates to maintain its corporate tax revenues? In this case, we are all back where we started, with no valuable new consumer products created and new techniques for producing the same products more efficiently. In fact, society is worse off than where we started, because the process of tax planning and tax minimization is expensive. On average the compliance cost of the federal and state income tax systems for a Fortune 500 company is more than $2 million.[65] For mid-sized companies, the aggregate compliance cost is about $22 billion.[66] Not all of the compliance costs are associated with tax planning done voluntarily by the corporation to reduce its effective tax rate. Some of it is old-fashioned compliance cost—cost-center overhead rather than profit-center investment—incurred in the prosaic chores of keeping records, calculating tax, and filing the necessary forms. Much of the cost is, though, associated with the effort to bring tax payments down. Indeed, there is evidence that, for large companies, higher compliance costs are associated with a lower effective tax rate, other things equal, suggesting that at least some of these costs represent tax planning.[67]

All of this cost, whether voluntarily incurred or not, represents a cost to the nation. What is done voluntarily will generally be a good investment *ex ante* from the company's, or the shareholders', perspective, but from the country's point of view it represents a deadweight loss. It is the responsibility of government to choose a tax enforcement policy that minimizes the sum of the cost of enforcement and compliance (and distortions to private behavior) while raising revenue in an equitable way. This is the best we can do given the existing level of civic virtue. Perhaps exhortations to

[65] Slemrod and Blumenthal (1996).
[66] Slemrod and Venkatesh (2002).
[67] Mills, Erickson, and Maydew (1998).

corporations to abandon tax minimization may enable the IRS to back off a bit, but I am doubtful that the intrinsic motivation for corporate tax payments is a strong force.[68]

**5. Policy**

This is not the place to attempt a comprehensive evaluation of public policy toward corporate tax evasion and abusive tax avoidance. But hopefully the foregoing discussion sheds some light on the policy options. The standard deterrence model suggests that evasion will decline if more enforcement resources can increase the probability of detection, and if the penalties applied upon detection are increased. A deterrence model of large publicly-owned corporations focuses attention on to whom the penalties should be applied, and on the relationship of tax enforcement policy and accounting policy. The standard model also presumes that evasion is detected immediately upon audit, but the complexity and opacity of abusive tax shelter arrangements imply that policy be focused on inducing disclosure of information to the IRS, and on the supply side of the tax shelter promoter business. Public disclosure of tax shelter information and book-tax differences may reduce the return to tax shelter schemes, but the timing of the release is likely to be critical. Public disclosure of the tax liability of corporations may focus public and legislative attention on the tax system and might possibly "shame" corporations into being less aggressive, but this can't be counted on and may even backfire if it facilitates the benchmarking of corporate tax department performance against the performance of competitors and causes a race to the bottom. Imposing a tax cost on the divergence of financial statement income and taxable income might to some extent harness for tax enforcement the value managers appear to place on public reports of profitability.

Beyond the scope of this paper is the issue of to what extent policies addressed at enforcement of corporate tax evasion and abusive avoidance are inherently difficult because of the fundamental incoherency of the existing, or any, income tax. There is something to this argument, although it is not very helpful for evaluating enforcement

[68] Although it is unlikely that any one corporation will unilaterally abandon tax planning (doing so could expose it to shareholder suits), corporate associations might facilitate voluntary restraint, if only to forestall more onerous anti-shelter legislation. Even this is made less likely by the specter of competitors from foreign countries who are not members of these associations.

policy under the current tax system. We must also be careful not to presume that alternative tax systems that exist only in blueprint would be immune to inconsistencies and shelter opportunities once hundreds of billion dollars of tax payments are in play.[69]

### 6. Research Agenda

The policy and practice of corporate tax avoidance and evasion are ahead of economic theory and empirical analysis. This may be inevitable, given the inherent difficulty of obtaining information about practices that are either definitely or arguably illegal. A larger methodological issue lurks, as well. Our empirical understanding of corporate behavior depends mostly on two sources of data, (publicly-available) financial statements and (confidential, but characterized in aggregated form) tax returns. Both sources of data are snapshots of what the corporate taxpayer wants some audience—either the investing public or the IRS--to see, and are not necessarily accurate portrayals of the real, underlying activities or the financial status of the taxpayer. In recent years many investors have been reminded of this fact the hard way. We academics may be misled along with the investors and the IRS if we ignore this and blithely assume the reports to be the unvarnished truth.

We should be challenged, and not distracted, by this conundrum. There is a set of empirical questions on which we can make progress, such as the interaction between sheltering and real decisions, the cross-sectional determinants of corporate evasion and the use of abusive tax shelters, and how accounting rules and enforcement affect tax reporting and real decisions. There are subtle policy questions, such as the impact of public disclosure of corporate tax return information, linking tax liability to financial statement income, and the impact of penalties on corporate directors and abusive tax shelter promoters, to which clear thinking about the demand and supply of tax evasion and abusive avoidance can contribute.

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[69] For example, see Weisbach (2000) for a discussion of the loopholes that might arise under a Hall-Rabushka flat tax.

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Table 1
NIPA Estimate of Misreporting on Corporate Income Tax Returns, 1988-2000

| | Misreporting Estimate ($bil.) | Total Receipts Less Total Deductions ($bil.) | Ratio of Misreporting to Misreporting Plus Total Receipts Less Total Deductions (%) |
|---|---|---|---|
| 1988 | 60.9 | 412.1 | 12.9 |
| 1989 | 66.7 | 391.6 | 14.6 |
| 1990 | 65.2 | 378.8 | 14.7 |
| 1991 | 67.6 | 352.1 | 16.1 |
| 1992 | 70.7 | 415.0 | 14.6 |
| 1993 | 72.5 | 507.9 | 12.5 |
| 1994 | 78.1 | 585.1 | 11.8 |
| 1995 | 85.7 | 717.8 | 10.7 |
| 1996 | 94.1 | 797.6 | 10.6 |
| 1997 | 107.7 | 905.5 | 10.6 |
| 1998 | 119.5 | 834.5 | 12.5 |
| 1999 | 136.1 | 925.4 | 12.8 |
| 2000 | 146.8 | 914.2 | 13.8 |

Source: National Income and Product Accounts, Table 7.16, lines 1 and 2.

Table 2

Examination Coverage Percentages for Corporations, by Asset Class

Fiscal Years 1996-2003

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|---|---|
| Corporation income tax returns, total | 2.34 | 2.73 | 2.09 | 1.54 | 1.13 | 0.96 | 0.97 | 0.88 |
| Balance sheet returns by size of | | | | | | | | |
| total assets: | | | | | | | | |
| Under $250,000 | 1.04 | 1.20 | 0.77 | 0.46 | 0.30 | 0.25 | 0.24 | 0.24 |
| $250,000 under $1,000,000 | 2.76 | 3.58 | 2.52 | 1.68 | 1.10 | 0.78 | 0.76 | 0.64 |
| $1,000,000 under $5,000,000 | 6.64 | 7.92 | 6.39 | 4.92 | 2.97 | 2.05 | 2.08 | 1.55 |
| $5,000,000 under $10,000,000 | 14.08 | 16.40 | 13.51 | 10.27 | 7.01 | 5.33 | 4.63 | 3.46 |
| $10,000,000 under $50,000,000 | 19.88 | 20.59 | 17.99 | 14.86 | 11.69 | 9.67 | 7.79 | 6.23 |
| $50,000,000 under $100,000,000 | 21.29 | 20.23 | 18.18 | 16.36 | 14.79 | 12.38 | 10.68 | 9.78 |
| $100,000,000 under $250,000,000 | 27.57 | 24.15 | 19.59 | 18.68 | 17.63 | 17.82 | 15.91 | 12.99 |
| $250,000,000 or more | 49.61 | 51.67 | 38.34 | 35.13 | 32.41 | 33.04 | 34.39 | 29.73 |
| No balance sheet returns | 1.13 | 1.19 | 0.96 | 0.67 | 0.62 | 0.66 | 0.93 | 1.22 |

Source: IRS (2004b).