Abstract - This paper reviews recent evidence analyzing the link between earnings management and corporate tax avoidance and considers the implications for how policymakers should evaluate the financial reporting environment facing firms. A real-world tax shelter is dissected to illustrate how tax shelter products enable managers to manipulate reported earnings. A stylized example is developed that generalizes this view of corporate tax avoidance and empirical evidence consistent with this view is discussed. This view of corporate tax avoidance implies that shareholders and policymakers should question the rationale for distinct financial reports and that greater book–tax alignment may have mutually beneficial effects for investors and tax authorities.

INTRODUCTION

The influence of taxes on corporations has largely been considered within a framework where taxes are involuntary payments that influence financing and investment choices on the margin. Such a framework does not dismiss the role of taxes but views them as inescapable environmental factors that must be weighed against a variety of other factors, such as those emphasized in the Modigliani and Miller (1958) framework for understanding corporate financing decisions. Consequently, most scholarly attention has been focused on how taxes change capital structure, dividend or investment decisions. Is the characterization of corporate taxes as an unavoidable burden consistent with contemporary practice? Accounts of rising corporate tax avoidance suggest that a pure compliance function no longer characterizes the way corporations and managers consider their corporate tax obligation. U.S. Treasury department officials have characterized corporate tax avoidance as “what may be the most serious compliance issue threatening the American tax system today.”¹ Such assessments typically point to aggregate measures of tax avoidance including measures of the growing difference between income reported to tax authorities and capital markets, declining effective tax rates on public financial statements and the growing share of firms with

no tax liability. For example, Yin (2003) reports effective tax rate reductions in the S&P 500 from an average of 28.9 percent in 1995 to 24.2 percent in 2000 and GAO (2004) reports that 32.7 percent of large U.S. corporations reported no tax liability in 1995 and that percentage rose to 45.3 percent by 2000.

These trends raise a variety of important issues for scholars and policymakers. For scholars, a basic question is: has corporate tax avoidance become more prevalent and, if so, why? A related set of questions for practitioners and policymakers can then be addressed: how should investors and policymakers view efforts to reduce corporate tax obligations? Should managers be rewarded for such efforts? And how should the financial reporting environment facing managers be adapted to these new realities?

The accounts of rising corporate tax avoidance have led some scholars to reframe these questions in an even more provocative way. Given low levels of detection and penalties, why don’t all firms avoid corporate taxes? In other words, why are firms paying taxes at all given the likelihood that they could reduce or eliminate tax obligations without suffering significant consequences? This somewhat more cynical set of questions, as posed by Weisbach (2002a), raises even more puzzles about how managers and firms view corporate tax obligations.

This paper attempts to address these questions by reviewing recent research on the prevalence and determinants of corporate tax avoidance. This recent research embeds corporate tax avoidance decisions within an agency framework that emphasizes managerial motivations. In doing so, this research attempts to analyze the determinants of firm heterogeneity in undertaking corporate tax avoidance. Such a research agenda requires defining corporate tax avoidance, devising a measure of corporate tax avoidance, and then analyzing what determines variation in firm choices about tax avoidance. The results point towards a variety of factors that run counter to the typical characterizations of why firms engage in tax avoidance. Specifically, they suggest that opportunistic managers can employ the technologies of tax avoidance to advance managerial, rather than shareholder, interests.

Before going any further, it is worth emphasizing that defining corporate tax avoidance is non-trivial. Many scholars suggest that corporate tax avoidance activities—or the use of corporate tax shelters, a largely synonymous term—are most effectively defined by what they are not. Many corporate transactions—including the most elemental financing choice of whether to finance oneself with debt rather than equity—have important, but typically secondary, tax consequences. Such decisions are primarily motivated by an underlying business purpose. Thus, even though they may generate tax benefits, they are not typically considered instances of corporate tax avoidance. This intuition for how to define corporate tax avoidance has become established in tax law through the “economic substance,” “business purpose,” and other “anti-avoidance” doctrines (e.g., Weisbach, 2002b). Such doctrines create exceptions to the otherwise applicable tax law in order to deny tax deductions generated by activities that are deemed to be purely or primarily motivated by tax avoidance. As with obscenity, though, the most functional definition of corporate tax avoidance may be a somewhat more facetious one. Michael Graetz has defined tax shelters as transactions that are “done by very smart people that, absent tax considerations, would be very stupid.”

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In the following, we follow this tradition by emphasizing transactions that have no purpose other than tax avoidance.

We begin by discussing how corporate tax avoidance decisions can be embedded within a broader agency framework. Specifically, we show that managers can use tax shelters to pursue their own interests rather than shareholder interests. In order to clarify the intuition behind this alternative view of corporate tax avoidance, we dissect a real corporate tax shelter and distill its lessons to develop a simple stylized example. These examples illuminate how corporate tax avoidance activities need not advance the interests of shareholders. Then, we outline a method for measuring tax avoidance and discuss large-sample results on the determinants of corporate tax avoidance decisions. These results indicate that corporate tax avoidance decisions are not merely transfers from the state to the shareholders. Finally, we discuss what the implications of these findings are for the financial reporting standards to which managers should be forced to adhere and, in particular, for the question of whether requiring book-tax conformity would be desirable. We conclude with some implications for managers, scholars, and policymakers.

**MANAGERIAL MOTIVATIONS FOR CORPORATE TAX AVOIDANCE**

Why do firms engage in tax avoidance? A simple and prevalent view in existing research is that tax shelters represent a means of reducing tax obligations and little more. As such, these investigations frame the use of tax shelters within the literature on non-debt tax shields (as in DeAngelo and Masulis (1980)), as one of many transactions that can reduce taxes. Graham and Tucker (2006), for example, estimate the degree to which tax shelters substitute for debt as a means of reducing tax obligations. This framework, however, minimizes the distinctive nature of tax shelters—that they serve no economic purpose other than tax avoidance—and abstracts from any notion of managerial motivations that might not be aligned with shareholder interests.

A first pass at incorporating managerial motivations into an analysis of corporate tax avoidance suggests that managers with interests more closely aligned with those of shareholders would behave more like residual claimants and engage in tax avoidance more aggressively to advance the interests of their shareholders. Within this framework, the historic unwillingness of managers to engage in corporate tax avoidance can be explained as a reflection of a principal-agent problem that put a natural brake on corporate tax avoidance, as agents were unwilling to pursue actions that advanced shareholder interests. This intuition has the added benefit of tying together the rise of incentive compensation and increased levels of corporate tax avoidance over the last 15 years. Essentially, shareholders want managers to avoid taxes, and managers, once their incentives are sufficiently aligned, engage in tax avoidance.

This view, however, does not incorporate all the dimensions of the central tension between managers and shareholders. In addition to shirking, managers may behave opportunistically in other ways that are not in the interests of shareholders. How could this opportunism be related to tax avoidance? A critical dimension of corporate tax avoidance is...
the need to engage in actions that obscure the underlying intent of the transaction. Indeed, tax avoidance usually demands such obfuscation to guarantee the tax benefits. Such obfuscation, however, can simultaneously provide a shield for managers engaging in a variety of diversionary activities. As such, the technologies of diversion—managers engaging in actions not in the interests of shareholders—and sheltering—managers shielding income from tax authorities—may well be complementary. Specifically, engaging in sheltering may reduce the marginal costs of diverting income. As discussed below, such an interpretation of corporate tax avoidance appears to be consistent with anecdotal and systematic evidence provided in recent research.

This complementarity can be modeled in a variety of ways. In Desai, Dyck, and Zingales (2007) this complementarity is portrayed as an interaction between resources diverted by managers and the amount of tax savings created by shelters. Such a modeling of this interaction may be particularly salient in emerging markets where the possibilities of managerial diversion are more stark. In the American setting, the interaction might be more subtle. In order to capture this dynamic in a setting where safeguards against direct theft are more prevalent, Desai and Dharmapala (2006) consider an interaction between the ability to reduce taxable income and inflate book income in a setting of dual reporting. These alternative perspectives can be thought of as, narrowly, an “agency perspective on tax avoidance” or, more broadly, as the “corporate governance view of taxation.” These models yield several predictions that are elaborated on below.

It should be emphasized that the term “diversion” should be understood broadly. While it is usually defined as the straightforward looting of the firm, any actions benefiting managers that are not in the interests of shareholders can be understood as diversionary, as is made clear in the examples below. In particular, the manipulation of earnings in a manner that increases payouts to managers are also included as a form of diversion in the discussion below.

**EXAMPLES OF TAX AVOIDANCE**

Prior to turning to more systematic evidence on the relevance of these alternative views of tax avoidance, it is useful to consider real world examples of how tax avoidance works to illuminate the underlying motivations for these transactions. This exercise requires finding a case where the details have become public; this is, of course, more likely in extreme situations. The example below is drawn from the activities of Enron; however, as the testimony of the actors makes clear, the lessons for managerial motivations are not limited to this extreme context.

A report by the Joint Committee on Taxation (hereafter JCT) of the US Congress (2003) provides a unique perspective on how central earning manipulation was to Enron’s extensive use of tax shelters. In summarizing various transactions, the JCT concluded that Enron’s management set high financial accounting goals and realized quickly that tax–motivated transactions could generate sizable financial accounting benefits. Accordingly, “Enron looked to its tax department to devise transactions that increased financial accounting income. In effect, the tax department was converted into an Enron business unit, complete with annual revenue targets. The tax department, in consultation with outside experts, then designed transactions to meet or approximate the technical requirements of tax provisions with the primary purpose of manufacturing financial statement income.”
One example of such a transaction was “Project Steele.” As Enron had already guaranteed that it would not pay taxes well into the future through previous tax shelters, this transaction was motivated by the fact that it would create $133 million in pretax financial accounting income. Ironically, in order to generate favorable tax treatment, Enron admitted that its “purported principal business purpose for the transaction was to generate financial accounting income.” In addition to the fact that no current tax savings were generated, it is also useful to note that the very complex structure was extremely costly to undertake. Project fees were estimated at over $11 million. As such, shareholders did not benefit from material tax savings, were manipulated by managers with financial accounting goals, and paid considerable fees in the process.4 How representative is such a transaction in depicting what motivates corporate tax shelters? The documents released through the JCT’s investigations reveal that the purveyors of the transaction recognized the centrality of financial accounting benefits to corporate tax shelters. Bankers Trust, the advisor to Enron on this transaction, initially showed a variant on the final structure that did not provide financial accounting benefits. Internal documents reveal that Bankers Trust concluded “that it would not receive much, if any, interest for the tax benefits alone but if the transaction were redesigned to provide for financial accounting benefits, as well, then corporate clients would be extremely interested and would pay a substantial fee…. [Other] less expensive alternatives exist to generate equivalent tax benefits.” As such, it appears clear that tax avoidance opportunities are usefully bundled with earning management by purveyors of those shelters.

The fact that market makers in tax shelters viewed tax benefits as incidental to the motivations for tax shelters indicates that the agency view of corporate tax avoidance has merit. Evidence on Dynegy in Desai and Dharmapala (2006) suggests a very similar dynamic, as does evidence on Tyco and Parmalat in Desai (2005) and on tax avoidance worldwide in Desai, Dyck and Zingales (2007).

A Stylized Example

In view of the complexity of the transactions involved, it is helpful to distill the main lessons of these examples into a simple stylized example. Table 1 provides such an example that helps fix ideas on the alternative views of tax avoidance. Consider a firm that generates pretax earnings of $100 in each of two periods. The firm faces a statutory corporate tax rate of 35 percent. There is a tax avoidance strategy that is available to the firm that would reduce the effective rate to 30 percent. For simplicity, assume that all earnings (net of tax payments and managerial compensation) are paid out as dividends to shareholders each period. The firm is assumed to have shareholder value of $100 at the end of period 2. This can be viewed either as the continuation value of its future earnings stream or as the liquidation value of its assets. It is also assumed that there are no personal taxes and no discounting across periods 1 and 2. The tax deductibility of executive compensation is ignored.

Suppose that the firm’s incumbent CEO will retire at the end of period 1. The example in the table contemplates three alternative executive compensation

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4 It could be argued that the upward manipulation of financial income may have benefited those shareholders who sold their stock while the stock price was artificially inflated. However, a long-term “buy and hold” shareholder would clearly have been harmed by this strategy.
<table>
<thead>
<tr>
<th>Panel A: Typical View of Tax Avoidance</th>
<th>Panel B: Earnings Manipulation View of Tax Avoidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td>1</td>
</tr>
<tr>
<td>True Earnings</td>
<td>100.00</td>
</tr>
<tr>
<td>Reported Pretax Earnings</td>
<td>100.00</td>
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<tr>
<td></td>
<td>No Sheltering</td>
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<tr>
<td>After Tax Earnings</td>
<td>65.00</td>
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<tr>
<td>Cum-dividend Firm Value</td>
<td>230.00</td>
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<tr>
<td></td>
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<tr>
<td>After Tax Earnings</td>
<td>65.00</td>
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<tr>
<td>Cum-dividend Firm Value</td>
<td>230.00</td>
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</tbody>
</table>

**Three Alternative Compensation Arrangements**

<table>
<thead>
<tr>
<th>Salary</th>
<th>Payoffs for Manager on Salary</th>
<th>10.00</th>
<th>10.00</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cum-dividend Shareholder Value</td>
<td>220.00</td>
<td>230.00</td>
</tr>
<tr>
<td>Earnings Bonus</td>
<td>Payoffs for Managers on Salary with 50% Earnings Bonus for aftertax earnings&gt;65</td>
<td>10.00</td>
<td>12.50</td>
</tr>
<tr>
<td></td>
<td>Cum-dividend Shareholder Value</td>
<td>220.00</td>
<td>227.50</td>
</tr>
<tr>
<td>Stock option</td>
<td>Payoffs for Managers on Salary with 1% Second Period Ownership</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td></td>
<td>Cum-dividend Shareholder Value</td>
<td>218.35</td>
<td>228.30</td>
</tr>
</tbody>
</table>

Notes: This table illustrates the discussion in Examples of Tax Avoidance of the text. The firm in this example generates pretax earnings of $100 in each period (1 and 2) and has a value of $100 at the end of period 2. It faces a tax rate of 35% in the “no sheltering” scenario, and a rate of 30% with sheltering. All earnings (net of tax payments and managerial compensation) are paid out as dividends each period. “Firm value” refers to the value of the firm ignoring managerial compensation, while “shareholder value” is net of this compensation. All values are cum-dividend (i.e., including the dividend to be paid that period). There are no personal taxes and there is no discounting across periods 1 and 2. The tax deductibility of executive compensation is ignored.
arrangements and their consequences for sheltering decisions:

- a salary of $10, paid to the CEO in period 1;
- a bonus scheme that pays the CEO the salary of $10 and 50 percent of (after–tax) earnings in period 1 in excess of $65;
- a stock–based compensation scheme that gives the CEO a salary of $10 in period 1 and a one percent ownership stake in the firm in period 2. This could take the form of options that vest in period 2, or a restricted stock grant that cannot be traded until period 2.

The traditional view of corporate tax avoidance is illustrated in Panel A of Table 1. Here, there is assumed to be no opportunity for the CEO to manipulate reported earnings, so reported earnings are equal to true earnings in each period. The firm’s after–tax earnings depend on whether or not it engages in tax sheltering. A firm’s value at the beginning of each period is the liquidation value of the firm and subsequent dividends, ignoring the manager’s compensation. The subsequent rows depict managerial compensation and shareholder value (net of this compensation) under each of the three alternative compensation arrangements.

Under the traditional view, engaging in tax avoidance clearly raises after–tax shareholder value, regardless of the compensation scheme. However, managers being paid salaries alone will not have any incentive to pursue the tax avoidance strategy as their pay is not a function of shareholder value. Indeed, if sheltering involves even a small effort cost, the manager will strictly prefer not to do so. Moving to an incentive compensation scheme of either the bonus or stock ownership will induce the manager to shelter, and thereby enhance shareholder value.

As discussed above, tax shelters are often bundled with earnings manipulation opportunities. This alternative view of earnings manipulation is illustrated in Panel B of Table 1. In this example, engaging in the tax shelter strategy enables the manager to move $25 of pretax earnings from period 2 to period 1 (as shown in the second row). It is useful to revisit the sheltering decisions in this case. If only salaries are employed, manager and shareholder payoffs are unaffected by the possibility of earnings management.

More generally, in a situation characterized by uncertainty and mispricing, earnings manipulation may enable managers to sell their stock in the company at inflated prices, with consequences that are essentially similar to those illustrated in Table 1.

The net consequences of tax sheltering for shareholder value are ambiguous under the stock option compensation arrangement. Period–1 shareholders benefit, while shareholders who enter in period 2 are harmed. This asymmetry, however, is incidental to the main point, which is to illustrate a scenario in which options can dissuade managers from engaging in tax avoidance.

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tax avoidance activity. This example, thus, makes clear that incentive based arrangements need not increase tax avoidance, as suggested by the alternative view of tax avoidance, particularly when tax avoidance is bundled with earnings manipulation. Moreover, the real world example above suggests that this stylized example is representative of many of the tax avoidance activities that have been executed in the US in recent years.

As this example is stylized, it is useful to address a number of caveats. First, if it were possible for the manager to decouple the tax shelter and the earnings manipulation, then she would do so in this example. However, in reality, it may not be possible for the manager to credibly signal to investors that these activities have been decoupled. Second, it may seem that the size of the bonus and the extent of earnings manipulation are likely to exceed the costs to shareholders from earnings manipulation, even under a bonus arrangement. However, it should be remembered that the example assumes that there are no real costs of earnings manipulation. If the sheltering and manipulation scheme involves real costs (e.g., by diverting the time and effort of managers from the generation of true earnings), then the losses to shareholders would be correspondingly larger.7

While it is difficult to extrapolate from these examples, it is helpful to see that the alternative view of tax avoidance is manifest in the few examples of tax shelters that are public. In a related vein, Graham and Tucker (2006) report that the tax deductions associated with tax shelters are extremely large. In their sample, they report that the typical tax deduction is $1 billion per firm per year, or nine percent of assets for these firms. Such large deductions are far greater than any conceivable tax obligations for these firms and are hard to reconcile with any purely tax-driven motivation.8 The view that embeds tax avoidance decisions in an agency framework seems to correspond better to what we know about corporate tax avoidance than does the simple view that corporate tax avoidance is a value transfer from the state to shareholders.

MEASURING CORPORATE TAX AVOIDANCE AND TESTING THE AGENCY HYPOTHESIS9

The corporate governance view of taxation yields three distinct predictions that can be tested in various settings. First, characteristics of a tax system—such as the structure of rates and the nature of enforcement—will influence managerial actions and, hence, the extent of the agency problem. Second, the nature of the corporate governance environment—e.g., the protections afforded dispersed outside investors and the laws that regulate self-dealing—will influence the workings of the tax system. Third, tax avoidance need not represent a simple transfer of resources from the state to shareholders; rather, managers may capture a share of the benefits of tax avoidance. The first two of these predictions have been evaluated in the international setting (with particular emphasis on developing countries), while the third has been evaluated using U.S. data.

International Evidence

As discussed above, Desai, Dyck, and Zingales (2007) develop a model where complementarity exists between

7 The magnitude of such costs is difficult to determine empirically, and so this example exclude such costs.
8 For instance, the return on assets is about seven percent for the firms in this sample (see Graham and Tucker (2006, Table 2)), so on average the deductions generated by the shelters exceeded pretax income.
9 This section draws upon Desai and Dharmapala (2007), which contains a much lengthier discussion of the emerging evidence on the corporate governance view of taxation and its implications for other research areas.
managerial diversion and corporate tax avoidance. This perspective generates a number of hypotheses about the interaction between the strength of corporate governance institutions and the tax system. Their model predicts that increases in corporate tax rates should lead to larger revenue increases in countries with stronger corporate governance institutions. Managers or controlling shareholders of firms in countries with weaker governance find it easier to divert from shareholders and, thus, have a greater incentive to avoid corporate taxes; in effect, they act as residual claimants on the firms’ cash flows. This hypothesis is tested using data on a panel of countries with differing corporate governance institutions. As predicted, corporate tax rate increases lead to increased revenues only in countries with strong corporate governance. For countries with weak corporate governance, the estimates suggest that revenues decline with higher tax rates, because of the interactions with the corporate governance system.

The model of Desai, Dyck, and Zingales (2007) also predicts that tax enforcement may benefit shareholders if the resulting decline in diversion by insiders is sufficiently large to offset the direct loss of shareholder value due to increased tax payments. This is tested using an episode from recent Russian history—the Putin administration’s crackdown on tax evasion by corporations in 2000. They find that firms targeted by these enforcement efforts experienced an increase in market value, and that the voting premia for these firms (a proxy for private benefits of control) declined. This test exploits heterogeneity across industries in firms’ ability to evade taxes, and is robust to various alternative explanations. Indeed, it coincides with contemporaneous accounts of the crackdown which noted that tax avoiding companies “have begun closing offshore subsidiaries and consolidating their operations within Russia. To comply with the law, they have to declare higher profits and pay higher taxes. They must also show the true extent of their financial operations to outside shareholders, who are just as keen to have a share of the proceeds as the tax inspector” (Jack, 2001). This evidence is hard to reconcile with traditional views of tax avoidance.

Evidence on Tax Avoidance in the U.S.

While the evidence discussed above may seem more germane for a developing country setting, an emerging literature has found significant interactions between taxation and corporate governance in the U.S. These empirical investigations are, of course, hampered by the difficulty of measuring tax avoidance. Building on research in the accounting literature, Desai and Dharmapala (2006) construct a proxy for tax avoidance activity based on so-called “book–tax gaps”—the difference between financial income, as reported by the firm to its shareholders and the SEC (using generally accepted accounting principles, GAAP) and the tax income it reports to the IRS. However, because tax returns are confidential, the book–tax gap is not directly observable to most researchers or to investors. This problem can be addressed by estimating firms’ taxable income using observable financial reporting data. In particular, Manzon and Plesko (2002) develop an approach that involves using a firm’s reported tax expense in its financial statements, and grossing up this amount by the corporate tax rate in order to estimate

10 The quality of corporate governance is measured by the size of private benefits enjoyed by controlling shareholders, as proxied by the control premium in negotiated control block sales.

11 It should be noted that even if tax return data is available, the book–tax gap (for a given firm in Compustat) may not be observable, for instance because of differences in consolidation rules across the book and tax contexts.
its taxable income. This estimated taxable income is then subtracted from the firms’ reported pretax financial income in order to compute the estimated book–tax gap. While there are a number of important caveats to this approach (reviewed, e.g., in Hanlon (2003)), it remains the only available procedure for measuring book–tax gaps, in the absence of direct observation of firms’ tax returns. Moreover, this measure has the distinct advantage of being observable to investors.

However, book–tax gaps may be due to factors other than tax avoidance. Most obviously, they reflect differences in the definitions of book and tax income. These differences, however, can be expected to be relatively stable over time. Book–tax gaps may also reflect earnings management (i.e., the overreporting of financial income). In order to incorporate the effects of earnings management, Desai and Dharmapala (2006) implement a procedure that seeks to correct the book–tax gap for the influence of earnings management. In the accounting literature, a widely used proxy for earnings management is the use of accruals—adjustments to realized cash flows made by managers in computing the firm’s net income—as these provide a measure of the extent of managerial discretion in the reporting of the firm’s income.\(^\text{12}\)

The approach developed in Desai and Dharmapala (2006) isolates the component of the estimated book–tax gap that is not explained by accruals or abnormal accruals. If the book–tax gap for firm \(i\) in year \(t\) (as estimated using the Manzon–Plesko (2002) approach), scaled by the lagged value of assets, is denoted by \(BT_{i,t}\), and the total accruals for firm \(i\) in year \(t\), scaled by the lagged value of assets, is denoted by \(TA_{i,t}\), it is possible to measure tax avoidance via the following regression specification:

\[
BT_{i,t} = \beta_1 TA_{i,t} + \mu_i + \varepsilon_{i,t},
\]

where \(\mu_i\) is the average value of the residual for firm \(i\) over the sample period, and \(\varepsilon_{i,t}\) is the deviation in year \(t\) from firm \(i\)’s average residual \(\mu_i\). The residual from this regression (i.e., the component of \(BT_{i,t}\) that cannot be explained by variations in accruals and, hence, by earnings management) can be interpreted as a measure of tax avoidance activity. In particular, the residual book–tax gap \(\mu_i + \varepsilon_{i,t}\) represents a more precise measure of tax sheltering activity than would the uncorrected \(BT_{i,t}\).

How good is the resulting proxy for firms’ tax avoidance activity? Clearly, no such measure can be perfect, but Desai and Dharmapala (forthcoming) provide a simple validation check that uses a sample of firms involved in litigation relating to aggressive tax sheltering activity.\(^\text{13}\) The proxy for tax avoidance takes on larger values for a given firm in those years in which it is accused of aggressive tax sheltering. While the sample of firms involved in litigation is small, this provides some reassurance that the proxy is correlated with tax avoidance activity. Wilson (2008) provides similar results. Further analysis of these links in larger samples would prove very useful.

In order to test the implications of the agency model discussed above, this measure of tax avoidance can be related to the nature of managerial incentives

\(^{12}\) For example, suppose that a firm contracts with a buyer who promises payment the following year. Then, there is an accrual to the firm’s income in the current year. However, the firm’s managers must estimate the probability that the buyer will default. Judgments of this kind give managers much more discretion than does the reporting of current cash flows, so accruals (typically adjusted in various ways to account for a “normal” level of accruals) are widely used as a proxy for earnings management.

\(^{13}\) This sample of firms was first identified and studied by Graham and Tucker (2006). However, the number of firms involved in such litigation is small, so their measure of tax sheltering activity is not suitable for a large-sample approach.
and to market values to understand how markets value tax avoidance. Desai and Dharmapala (2006) present a simple model in which the impact of greater incentive alignment between shareholders and managers has an ambiguous effect on the extent to which managers undertake tax avoidance activities. On the one hand, higher–powered incentives create a direct motivation to increase after–tax firm value and, hence, to increase tax avoidance. On the other hand, higher–powered compensation schemes dissuade managers from acts of opportunism that may be complementary with tax sheltering. This reduces the value (to managers) of tax avoidance activity. For example, consider a manager who can use a tax shelter to not only reduce tax obligations, but also to manipulate financial reporting to move earnings into the current period, and sell stock in the firm at temporarily higher prices. A compensation scheme based on stock options will reduce the incentive to engage in this type of earnings manipulation, and will also reduce the manager’s benefits from using the tax shelter, possibly to such a degree as to offset its tax benefits.

Given this ambiguity, the effect of managerial incentives on tax avoidance is an empirical question. The results presented in Desai and Dharmapala (2006) indicate a negative relationship between their incentive compensation and tax avoidance measures. This negative relationship contradicts the straightforward view of corporate tax avoidance as simply a means of reducing tax obligations, but is consistent with managerial opportunism being an important consideration and with the existence of complementarities between tax avoidance and managerial opportunism.14 Moreover, this view is supported by further analysis that focuses on the differences in the governance characteristics of the firms in the sample.15 The negative relationship is driven primarily by firms with relatively weaker governance environments, where managerial opportunism is likely to be a more important factor.

In a related paper, Desai and Dharmapala (forthcoming) investigate the effects of their proxy for tax avoidance on firm valuation. Given the theoretical framework sketched above, the central prediction is that firms’ governance institutions should be an important determinant of how investors value managers’ efforts to avoid corporate taxes. Specifically, tax avoidance should lead to larger increases in firm value at better–governed firms. This is not simply because of a tendency among managers of poorly governed firms to waste or dissipate a larger share of any value–generating activity in which they may engage, but also because complex and obfuscatory tax avoidance activities create a potential shield for managerial opportunism, and this factor will naturally loom larger at firms where governance institutions are weaker. Consistent with this prediction, they find that the impact of tax avoidance on firm value (as measured by Tobin’s $q$) is significantly greater at better–governed firms. This result is robust to the use of a wide variety of controls and various extensions to the

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14 The underlying premise here is that incentive compensation serves, at least to a substantial degree, to align managers’ interests with those of longer–term shareholders. It is possible instead that incentive compensation creates opportunities for managers to capture the benefits of short–run increases in stock value, but this is unlikely in practice. Stock options and stock grants are typically provided subject to a “vesting period” of several years during which the manager cannot sell the stock (or otherwise divest herself of it). Thus, the incentive compensation measure focuses on current options and grants (which are subject to vesting) rather than managerial stock ownership per se, which may have been accumulated several years in the past and may no longer be subject to vesting requirements.

15 Governance characteristics are measured using the index constructed by Gompers, Ishii and Metrick (2003) and by a measure of the extent of institutional ownership.
model. It also holds when a 1997 change in tax regulations (that apparently reduced the costs of tax avoidance for a subsample of firms) is used as a source of exogenous variation in tax avoidance activity.

Other Evidence

The emerging literature on the corporate governance view of taxation has begun to receive support more broadly from a variety of studies. These studies come in two varieties. First, several studies have also noted that market valuations of tax avoidance appear not to be consistent with the naïve view that tax avoidance is a transfer of value from the state to shareholders. For example, Hanlon and Slemrod (2008) study market reactions to news reports about tax sheltering activity by corporations.\(^{16}\) They find a small negative reaction to news about tax sheltering. However, the reaction is more positive for better-governed firms, which is consistent with the theoretical framework developed in Desai and Dharmapala (2006) and outlined above. Similarly, Desai and Hines (2002) study market reactions to corporate expatiations or inversions—transactions in which a US parent corporation becomes the subsidiary of its former tax haven subsidiary through a share swap. Although inversions are presumably motivated by tax savings (in particular, the avoidance of US tax on foreign-source income and possibly also the avoidance of tax on US income in certain circumstances), market reactions are not typically positive, as might be expected under the naïve view.

The second type of evidence relates to the role of the IRS as a meaningful monitor of managerial misbehavior. Erickson, Hanlon, and Maydew (2004) analyze a sample of firms that were found by the SEC to have fraudulently overstated earnings. They find that these firms paid a significant amount of taxes on these fraudulent earnings. This suggests that, at least for this sample of firms, the threat of IRS monitoring of their taxable income loomed larger than did investor monitoring of their financial statements. Similarly, Guedhami and Pittman (forthcoming) find evidence that debt financing is cheaper when the probability of a face-to-face IRS audit is higher. The role of IRS oversight on debt financing costs is also related to the ownership structure of firms and the presumed agency costs of those arrangements. Thus, managers and investors appear to appreciate the role of a tax enforcement agency as a monitor of managerial opportunism.

IMPLICATIONS FOR FINANCIAL REPORTING\(^{17}\)

The corporate governance view of taxation has implications for the merits of adopting a greater degree of alignment between financial and tax reporting. This view implies that greater alignment of book and tax reporting reduces the latitude afforded managers in characterizing their profits in mutually beneficial way for managers and shareholders. Specifically, a system characterized by greater alignment allows for an additional monitor, the IRS, to review the same profit reports that financial investors receive. Additionally, managers cannot use the distinction between book and tax reports to manufacture profits or reduce tax obligations, as the examples and evidence above suggest they do. Finally, the taxes paid by firms become automatically observable to shareholders, thereby making the overall economic performance of firms more transparent.\(^{18}\)

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\(^{16}\) This sample includes a total of 108 events, and, thus, (while somewhat broader than that constructed by Graham and Tucker, 2006) is quite small.

\(^{17}\) This section draws on Desai (2007), which contains a lengthier discussion of these implications. For excellent reviews of some of these issues, see Hanlon and Heitzman (2009) and Graham, Raedy and Shackelford (2009).

The case for greater alignment is strengthened by the fact that operating two parallel reporting systems creates an obvious redundancy in operating costs for firms. These costs are compounded by employing two groups of people with the particular expertise associated with each distinctive system. Slemrod (2006) reviews existing evidence on the compliance costs of taxing large businesses. Estimates of the ratio of compliance costs to revenues raised range widely from three to 30 percent. Of course, these costs do not contain estimates of the costs to the U.S. government of enforcing a tax reporting system that is distinct from the reports to capital markets. Compliance costs would not be eliminated in a system with more conformity, but clearly some reduction in costs would result. Unfortunately, no reliable estimates exist for such savings.19

Efficient tax policies are characterized by lower rates on a broader base rather than high rates on a narrow base. Lower rates and broader bases imply reduced behavioral responses to taxes and, consequently, lower deadweight losses associated with raising government revenue. Currently, we appear to have a high marginal tax rate, by global standards, on a relatively narrow base, with firms responding, as one might expect, by reducing their tax obligations in other ways.20 Coupling a move toward greater alignment on the broader base of financial accounting profits with a significantly lower rate could reduce these significant efficiency costs and reduce the efforts by firms to engage in such activities.

Understanding the precise magnitude of the feasible tax cut requires much more analysis. Rough estimates using aggregate data on all public corporations, elaborated on in Desai (2005), suggest that a 15 percent tax on reported profits could generate the same revenues as the corporate tax does now. Emphasizing the experience of only U.S. multinational firms, Hanlon and Maydew (2006) estimate that conformity could result in revenue-neutral corporate tax reductions to a statutory rate of 26 percent. Neither estimate employs the confidential data required to provide more precise estimates. These initial efforts to understand what reductions in tax rates could accompany a broadening of the base could usefully be expanded on by government researchers that have tax information available to them.21

There are two primary concerns about greater alignment that arise repeatedly in current debates. The primary difficulty with advancing toward greater alignment is the political dimension. There are two possible political consequences that are concerning. First, the government might lose some freedom over tax policy in a totally conformed system. In particular, the ability to change depreciation schedules to provide investment incentives may not exist in a totally conformed system. This concern is mitigated by the fact that few advocate a completely conformed system but instead the use of financial accounting

19 The remarkable magnitude of deferred tax assets and liabilities (see Poterba, Seidman and Rao (2007)) also places increasing pressure on firms to explain the valuation of these accounts to rating agencies and investors. While the costs associated with this are unclear, the pervasive nature of these accounts and their growing values are presumably associated with costs that could be limited in a system characterized by greater alignment. The claim that compliance costs may be reduced does not mean that enforcement costs by the IRS would be reduced. Indeed, the corporate governance view of taxation suggests that enforcement efforts by the IRS have valuable spillovers to shareholders.

20 For instance, while the U.S. has one of the highest statutory corporate tax rates among countries in the Organization for Economic Cooperation and Development (OECD), its ratio of corporate tax revenues to GDP is 2.2 percent, considerably below the OECD average of 3.4 percent (see U.S. Treasury (2007, Table 5.3, p. 42). This suggests that its high tax rate is being applied only to a narrow base.

21 McClelland and Mills (2007) provide an even higher estimate of the revenue neutral rate (35 percent). This estimate is hard to reconcile with the persistent amounts by which book income exceeds tax income.
measures as a default, with subsequent departures dictated by policy makers.\textsuperscript{22}

The second, and more severe, concern is that accounting bodies would face more lobbying and political pressure from legislative bodies about accounting definitions if taxes were associated with financial accounting definitions. As Zeff (2002) elaborates, financial accounting standard setting bodies have been subject to, and have sometimes accommodated, intense pressure by legislators and firms. With greater alignment, the incidence of such lobbying could increase, particularly as legislators became concerned about the definitions of accounting items that could influence tax policy. A system of absolute conformity would be subject to such concerns, although a reasonable system where financial accounting was the default and exceptions were allowed would seem to be less subject to this concern. Finally, the convergence of accounting systems toward international accounting standards, as described below, might also limit this political pressure as the relevant bodies may be somewhat insulated from political influence through the acknowledgement of supranational standards.

Critics of book–tax alignment also emphasize the loss of information to investors from a potential conformed system. This loss of information is purported to arise because of a manager’s willingness to sacrifice the accuracy of reports to investors and accounting profits in order to save taxes. Evidence for this point of view draws on studies of several countries with conformity as well as analyses of the imposition of conformity in particular parts of the reporting environment.\textsuperscript{23}

The cross–country evidence, unfortunately, is limited by the handful of countries that are analyzed and by the fact that this evidence is most properly interpreted as indicating that a cluster of institutions—concentrated ownership, bank based systems and book–tax conformed income—are associated with less informative earnings. Indeed, studies by scholars in countries with conformity experiences (such as Schön (2005)) suggest that many of the concerns over conformity are overstated.\textsuperscript{24}

More generally, examining a narrow change to reporting rules toward conformity may also not be informative about a wholesale change toward conformity—much as narrow tax reforms may lead to misleading implications about the consequences of wholesale tax reforms. In short, very little is known about the imposition of conformity from an empirical perspective. As suggested below, recent movements toward conformity in various parts of the world may offer a promising empirical setting for considering these questions.

More generally, there is limited theoretical work on the merits or costs of dual reporting systems. Given the centrality of information systems to both tax systems and investor rights, much greater empirical and theoretical work is warranted prior to making any conclusions about the loss of information associated with conformity.\textsuperscript{25}

\textsuperscript{22} An alternative approach to partial conformity is the proposal made by Shaviro (2008) for a 50 percent adjustment of corporations’ taxable income towards book income.

\textsuperscript{23} See, for example, Hanlon, LaPlante, and Shevlin (2005).

\textsuperscript{24} These contrasting results reflect different methodologies and samples. The empirical studies of this issue include Ball, Kothari and Robin (2000), Ball, Robin and Wu (2003) and Guenther and Young (2000) who consider the effects of reporting environments on the quality of information in a handful of countries. Schön (2005) provides a legal and accounting analysis of the underlying forces at play.

\textsuperscript{25} This concern, while historically relevant, also seems less pressing for the case of public corporations today that prioritize investor perception. These concerns would be even less relevant with lower rates of corporate taxation. It is possible that firms would respond to conformity with a changed emphasis on different definitions of income—so called pro forma earnings, for example—to facilitate tax avoidance while preserving positive impressions with investors.
The international experience with conformity is rapidly changing and many countries are now experimenting with greater levels of conformity. These changes have been triggered by the widespread growth of the International Financial Reporting Standards (IFRS) via the International Accounting Standards Board. In short, many large countries have adopted or mimicked IFRS, and many others, including the US, have embarked on convergence projects that target the same endpoint.26

The EU’s mandated use of IFRS has triggered a reevaluation of the degree to which tax accounting should also use IFRS. The advent of IFRS has led commentators to call for the use of IFRS as the logical starting point for tax accounting, creating a potentially sizable degree of conformity (see, for example, Schön (2004, 2005)). The current state of play is summarized in Endres, Köhler, Oestreicher, Scheffler, and Spengel (2006), which documents how European Union countries reflect IFRS principles and practices to varying degrees in their tax laws. As described in detail there, considerable overlap exists between IFRS and tax accounting rules. Indeed, the European Union is now considering using the IFRS as the starting point for a Common Consolidated Corporate Tax Base.27

One example of particular note is the United Kingdom. The recent experience in the UK is summarized in Freedman (2004), who details how the advent of IFRS has led to greater, but not complete, conformity in the UK. Specifically, legislative efforts to make IFRS the default definition of income for tax purposes have been followed by case law developments and the actions of standard setters to modify IFRS to accommodate the necessities of tax law. While a complicated transition requiring effort by legislators, standard setters and judges, these efforts and subsequent development appear to have been successful and have been met with acceptance by companies and investors. There certainly has not been the doomsday outcome suggested by critics of conformity.

Oversimplifying the international experience into countries with and without conformity is not accurate. Accounts of some countries as being hampered by conformity and no longer abiding by it are similarly inaccurate. The advent of IFRS has stimulated many changes in this arena with many countries employing it as an opportunity to advance conformity, with apparently salutary effects. Other countries, such as Germany, are in the midst of reconsidering traditional conformity measures in the world of IFRS. Much more research could be done in the international arena to further understand the effects of conformity, as evidenced by the case examples provided in Freedman (2004), Norberg (2007), Schön (2004, 2005) and Endres, Köhler, Oestreicher, Scheffler, and Spengel (2006). The IRS could also benefit from looking to the experiences of other countries with greater conformity to further understand the potential effects in the U.S. setting.28

CONCLUSIONS

The simple intuition that corporate tax avoidance represents a transfer of value from the state to shareholders has been challenged by recent research that finds that this view does not appear to be validated in the data. This research points to an alternative view, emphasizing that tax avoidance demands obfuscatory actions that can be bundled with diver-

26 For more on the evolution of IFRS, see Armstrong, Barth, Jagolinzer, and Riedl (2007).
27 See Norberg (2007) for a discussion of this proposal, a rich set of examples of countries reacting to IFRS and the issues associated with such transitions.
28 Armstrong, Barth, Jagolinzer, and Riedl (2007) provide a discussion of the primary distinctions between IFRS and GAAP.
sionary activities, including earnings manipulation, to advance the interests of managers rather than shareholders. The results from large sample analysis, along with the illustrations provided in the stylized and real-world examples, all indicate that conceptualizing corporate tax avoidance within an agency perspective provides a fuller and more accurate depiction of the motivations driving this phenomenon.

Revisiting the links between corporate governance and taxation offers some lessons for the design of the information systems employed by tax authorities and capital markets. In short, the corporate governance view of taxation recommends a reconsideration of the dual reporting system and an increased reliance on alignment of financial and tax accounting whenever possible. In addition, such an alignment can have significant benefits in terms of lowered compliance costs and holds the promise of lower tax rates on a broader tax base. The recent experiences of several countries offer the promise of furthering our understanding of how corporate governance and taxation interact and are influenced by the information environment.

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