Testimony
of
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Chairman Levin and members of the Subcommittee, it is a pleasure to appear before you today to discuss the accounting and tax treatment of incentive compensation. I am an Associate Professor of Finance at Harvard Business School and a Faculty Research Fellow of the National Bureau of Economic Research.

My comments below provide an overview of the financial and tax accounting systems and their treatment of incentive compensation. Independently, the topics of financial accounting, tax accounting and stock options are extremely confusing. Taken together, they can be overwhelming and, frankly, mind-numbing. While my comments below are much more nuanced, I thought I would begin with a thought experiment that I've found helpful for simplifying the relevant issues.

Imagine if you were allowed to represent your income to the IRS on your 1040 in one way and on your credit application to your mortgage lender in another way. In a moment of weakness, you might account for your income favorably to your prospective lender and not so favorably to the IRS. You might find yourself coming up with all kinds of curious rationalizations for why something is an expense for the tax authorities but not an expense to the lender. You don't have this opportunity and for good reason. Your lender can rely on the 1040 they review when deciding whether you are credit-worthy because you would not overly inflate your earnings given your desire to minimize taxes. Similarly, tax authorities can rely on the use of the 1040 for other purposes to limit the degree of income understatement given your need for capital. The uniformity with which you are forced to characterize your economic situation provides a natural limit on opportunistic behavior.

While individuals are not faced with this perplexing choice of how to characterize their income depending on the audience, corporations do find themselves in this curious situation. A dual reporting system is standard in corporate America and, judging from recent analysis, gives rise to opportunistic behavior.

Indeed, a significant cost for corporations – the cost associated with compensating key employees with stock options – was until recently treated as an expense for tax purposes but not for financial accounting purposes. More specifically, the value of stock options exercised in a given period gave rise to a taxable deduction for corporations while those stock options were never expensed for financial accounting purposes, though they were noted in other disclosures. This can be viewed as the most advantageous way to treat an expense – reducing the firm's tax liability while not detracting at all from its financial bottom line.

Recent changes in financial accounting have changed this asymmetry so that there is now an expense associated with stock options but a considerable difference still exists with tax rules. Specifically, the *amount* and *timing* of the deduction are distinctive. The financial accounting expense is at the time of grant and the amount expensed is the value of the options at the time of grant (versus the value of the exercised options at the time of exercise). Grant and exercise values, as well as their timing, will differ significantly. Historically, the distinctive treatment of stock options has contributed significantly to the overall difference between financial and tax accounting reports, as shown in Desai (2003) and Boynton, DeFilippes, and Legel (2006).

Does this situation make sense? In order to consider this question, I review the nature of the dual reporting system in the U.S., the debate over changing this system to one where conformity would be more common, the international experience with increased conformity, evidence on the behavioral consequences of stock options, and international variation on the tax treatment on stock options. Several conclusions emerge:

1. As suggested by the example above and further elaborated on below, the dual reporting system can enable opportunistic behavior by managers at the expense of investors and tax authorities. This insight, from an emerging body of work labeled the "corporate governance view of taxation," suggests that tax authorities can be meaningful monitors that complement the activities of shareholders concerned with opportunistic insiders. Under the current dual reporting system, it is impossible for investors to tell what firms pay in taxes, clouding what a firm's true economic performance is. The evolution of the two parallel universes of financial and accounting reporting systems appears to be a historical accident rather than a manifestation of two competing views of what profits should be. Aligning tax definitions with financial accounting standards can have payoffs to investors and tax authorities, can lower compliance costs of the corporate tax, and allow for a lower corporate tax rate on a wider base. Concerns over greater alignment between tax and financial accounting are important but many of these concerns are overstated, as I discuss below.

2. Changing financial accounting standards has stimulated debate worldwide on the virtues of greater conformity. Many countries, including notably the U.K., have shifted toward greater alignment of tax and accounting reports with little apparent disruption. More broadly, tax authorities in many countries in the European Union explicitly reference financial accounting treatments in several parts of the tax treatment of corporations. Indeed, the European Union is contemplating yet a more aggressive alignment between tax and accounting rules. The relative segregation of financial accounting and tax treatment of corporate income appears to make the U.S. somewhat anomalous by international standards. By itself, this international experience is informative but hardly decisive as the U.S. may choose quite different rules for good reasons. Nonetheless, it is enlightening to see that increased conformity can work and need not represent a doomsday outcome as some have suggested.

3. Stock options are a critical part of our economic system today. They are extremely valuable tools that have numerous benefits and several costs. Their use is influenced by their accounting treatment and, to some degree, to their tax treatment. As such, changing the accounting and tax treatments of stock options can be expected to change their use. Existing evidence, though

scant, is consistent with increased disclosure limiting the use of stock options but also with investors appreciating the disclosure and changing their valuations of firms accordingly.

4. There exists considerable variation internationally on the tax treatment of stock options. In particular, some countries, such as Canada, do not allow any tax deduction for stock options while others take the deduction at the time of grant and others follow the U.S. and provide a deduction at the time of exercise. Again, this international experience is informative but hardly conclusive as the U.S. may choose quite different rules given that stock option compensation is much more central to compensation in the U.S. than elsewhere. Nonetheless, it is enlightening to realize that there are many different ways to solve this problem and that the current situation is not a natural solution.

5. Bringing the tax treatment of stock options into alignment with the recent changes to the accounting treatment has a number of virtues. First, it would make the tax treatment consistent with the accounting profession's well-reasoned analysis of when this deduction is appropriate and what the right amount of the deduction is. Second, as with other movements toward greater alignment, reducing the reporting distinction in how managers are paid can create greater accountability and reduce distortions to the form of managerial compensation. Third, there is limited reason to believe that the purported costs typically attributed to greater alignment between tax and financial accounting would be relevant in this setting. There are a number of nontrivial complications associated with such a change. Implementing such a change will require thinking through if the timing of taxable events for individuals and corporations can be separated and if the compensation expensed by corporations and earned by individuals need be the same.

In sum, this example of increased conformity between financial and tax accounting has much to recommend it and need not be viewed as a radical departure from global practice. It will still allow for the many benefits of incentive compensation to accrue to the U.S. economy without continuing the distortions associated with the current anomalous distinction between tax and accounting reports.

I begin by elaborating on the nature of the "dual reporting system" and what we have learned about how it functions. A variety of studies and the international experience suggest that revisiting the foundations of the information environment for firms is overdue. Having established the contours of the debate over the dual reporting system, I then want to provide some perspective on incentive compensation and its accounting and tax treatment. In particular, I will discuss the importance of incentive compensation to the American economy, the difficulties it can create, and how the tax and accounting treatment of options influence their use. I conclude with some specific thoughts on how greater conformity of the treatment of options expensing could be implemented and what problems it would solve.

It should be noted that when "conformity" or "greater conformity" is referred to below, it is meant to describe the use of financial accounting definitions as a *default* measure of income for tax authorities with *select* departures for specific tax policy goals. It is not meant to describe the use of tax accounting definitions for financial reporting purposes nor is it meant to describe a system where financial accounting definitions are adopted wholesale without modification. In many places below, I refer to "alignment" rather than "conformity." I believe that the term alignment is more descriptively accurate as the term conformity implies a great deal of rigidity.

I. The Dual Reporting System

The last decade has featured two seemingly contradictory concerns related to corporate profits. First, corporate scandals have focused attention on efforts by managers to artificially inflate profits reported to capital markets. Second, tax authorities have focused increased attention on the activities of firms to depress profits to pay lower taxes. How could both these concerns be operative simultaneously? The answer is the dual reporting system. In this section, I begin by describing how this system works and why defenders support it. I continue by revisiting what we have learned about the dual reporting system over the last decade and the virtues and concerns related to adopting greater conformity.

I.A. How does dual reporting work?[1]

American firms keep two sets of financial statements: a financial statement that reports "book profits" to the capital markets and a separate financial statement that reports "tax profits" to the government. These two profit reports can bear little resemblance to each other and follow distinct rules. One such example of this distinction is the treatment of incentive compensation in the reports of profits to capital markets and tax authorities.

Conceptually, the many differences between book and tax profits largely center on differing treatments associated with the *timing* and *location* of income. With respect to timing, accountants have developed a variety of rules to ensure that income is measured when earned and associated expenses are incurred in parallel, through the system of accrual accounting. In contrast, tax authorities emphasize the actual receipt of proceeds and the actual payment of expenses. In a related vein, book profits reflect subjective, probabilistic assessments of expenses, such as contingent liabilities, while tax authorities are reluctant to provide deductions for anything but actual payments.

With respect to location, book profits measure the worldwide income of firms, which is increasingly comprised of earnings from overseas operations. In contrast, the international tax regime for U.S. multinationals considers the repatriation of earnings to the U.S. to be the recognition event for tax purposes. As a consequence, profit reports differ given the differing definitions of worldwide income. More generally with respect to location, the rules differ markedly with respect to entity definition and consolidation rules creating myriad differences in how a tax entity is defined relative to an accounting entity.

The dual reporting system is also accompanied by asymmetric sharing of information on profit reports. Tax authorities have access to reports to capital markets while investors cannot access confidential tax returns. The confidentiality of tax returns, which prevents explicit comparisons of the two profit reports by capital market participants, is usually defended on the grounds that competitors could glean useful information from tax returns.

I.B. Why do we have dual reporting?

Supporters of the dual reporting system rely on the intuition that the two books serve two distinct purposes. The Supreme Court decision usually cited, Thor Power Tool Co. v. Commissioner (439 U.S. 522 [1979]), states that:

> The primary goal of financial accounting is to provide useful information to management, shareholders, creditors, and others properly interested; the major responsibility of the accountant is to protect these parties from being misled. The primary goal of the income

[1] This section draws on Desai (2005).

> tax system, in contrast, is the equitable collection of revenue; the major responsibility of the Internal Revenue Service is to protect the public fisc. Consistent with its goals and responsibilities, financial accounting has as its foundation the principle of conservatism, with its corollary that "possible errors in measurement [should] be in the direction of understatement rather than overstatement of net income and net assets." In view of the Treasury's markedly different goals and responsibilities, understatement of income is not destined to be its guiding light. Given this diversity, even contrariety, of objectives, any presumptive equivalency between tax and financial accounting would be unacceptable.

This intuition that two different functions are being served by the two reports continues to be the primary argument for sustaining dual reporting.

Defenders of the current dual reporting system also tend to emphasize that reconciliation of the two profit reports is possible in two ways. First, the accounting standards that guide reporting of tax expenses on public financial reports are meant to provide sufficient information to infer a firm's tax position. While income statements typically keep tax information to a minimum, more detailed footnotes provided in public registration statements are meant to provide further information on the nature of a firm's tax position. Second, corporations must explicitly reconcile book profits and tax profits on their tax returns. This reconciliation, which begins with aggregate book profits and is designed to categorize the discrepancies with tax profits, is part of a corporation's returns and, as such, is only available to tax authorities.

I. C. What have we learned about the dual reporting system?

The debate on the merits of the dual reporting system has been somewhat heated.[2] As such, it is useful to begin with the relatively unambiguous conclusions that have emerged from recent work on the dual reporting system.

1. Public financial reports tell us little or nothing about what a firm pays in taxes.

As discussed above, proponents of the current system suggest that information about taxes paid is available to investors so it is not clear that increased conformity would serve a meaningful purpose. Indeed, given that thirty-five cents of every pretax dollar is supposed to go the government, one would think that such a large cost figure would be easily deduced or that it would be clearly reported. In fact, research has shown that the amount corporations pay in taxes is impossible to decipher from annual reports. Leading accounting scholars have reviewed the intricacies of tax footnotes of leading companies and cannot answer a simple question: how much did this company pay in taxes? Specifically, Hanlon (2003) reviews the tax footnotes of several major corporations and demonstrates that several contradictory conclusions regarding their tax positions, depending on the information used, are entirely feasible.[3]

2. The argument that tax and financial reporting have different purposes is a new argument.

[2] Critics of increased conformity have labeled it a "naïve proposal" with "dangerous" consequences. For a particularly eloquent statement for maintaining the *status quo*, see Shackelford (2006).

[3] Large sample evidence that compares tax returns to public financial statements yields a contradictory set of conclusions on the degree to which public financial statements, on average, can yield meaningful information on tax payments (Graham and Mills, 2007; Plesko, 2006). Recent reforms in tax reporting, as advanced in Mills and Plesko (2003), have led to an increased ability to match public financial statements to tax returns for tax authorities without any increased access to this information for shareholders.

The 1979 Thor decision has led various supporters of the *status quo* to assert that financial and tax reporters serve two distinct purposes and should therefore not be conformed. Revisiting the history of the corporate income tax clarifies that this view is a decidedly modern notion and also reveals just how curious the current state of affairs is. With respect to the measurement of income, accountants, economists, and firms all argued at the onset of the corporate tax that accounting income should be employed for assessing tax burdens. When the income tax was first devised, Robert Haig, the Columbia University economist who helped devise the Haig-Simons definition of income, stated that "it goes without saying that taxable income under an income tax law should approximate as nearly as practicable the true net income as defined by the analysis of the economist and the accountant." (Haig, 1921) Indeed, accountants and firms vigorously argued that accounting income was the only correct basis for taxing corporate profits arguing that differing definitions would require "duplicating the present cost of the accounting department, serving no useful purpose whatever" (quoted in Robinson, 1911). Through the middle of the last century, firms continued to argue for greater conformity toward accounting standards given the costs of dual reporting.

A historical review of the motivations for the corporate tax also makes clear that the sponsors viewed the tax as advancing the efforts to control corporations through dissemination of additional information of their activities. As contemporaneously profiled by Robinson (1911), the corporate income tax should not "be judged primarily upon its capacity to produce revenue or to distribute the fiscal burdens equitably. Its important function in the view of its sponsors was to give publicity and to furnish the basis of government supervision of corporations." This intuition for the intent of the tax seems to accord well with the idea that a corporate income tax should be viewed as part and parcel of the system of monitoring corporate activity for various corporate shareholders, a goal presumably impeded by the maintenance of a confidential, distinct set of profit reports.

Up through the middle of the last century, many firms continued to argue for greater conformity between tax profits and accounting standards, given the costs of dual reporting. But over time, as Knott and Rosenfeld (2003) describe it, the two accounting systems have evolved into "parallel universes" with innumerable differences in treatment. The evolution of two distinct accounting systems is largely the story of the refinement of accounting science in addressing issues like the timing and location of income, combined with stagnation in the ways in which tax authorities measure income. In contrast to their historical positions, firms and accountants now generally argue against conformity between the two sets of accounts and disclosure of corporate tax returns. Given the costs involved in maintaining two books, firms presumably have come to value the opportunity to characterize their profits in distinct ways to the capital markets and tax authorities.

3. In the aggregate, deviations between profit reports to tax authorities and capital markets have become large and difficult to understand

Over the last decade, the connection between aggregate financial accounting income and tax income has become more tenuous. A variety of commentators have tried to reconcile the two values, in aggregate, with limited success based on accepted differences between the two profit reports. Estimates of the overall difference for the years prior to the advent of the M-3 reconciliation form were as high as $150 billion annually with differences arising from stock options constituting a significant fraction of that amount.[4]

Thanks to the implementation of the M-3 reconciliation form, as advanced in Mills and Plesko (2003), it is possible for researchers with access to this confidential data to tell us more about this gap. More recent analysis using this data, as in Boynton, DeFilippes, and Legel (2006) and Weiner (2007) confirms many of the finding from previous studies. The distinction continues to be large (on the order of $140 billion) and stock options constitute a sizable fraction of that gap for 2004, the first year for which M-3 data is available.

The M-3 has been very useful for providing a broad characterization of the differences between the two profit reports. It is worth noting that the usefulness of the M-3 has been limited by its confidential nature. Data are accessible only to researchers granted explicit access, and then only with a lag of several years. And, obviously, investors cannot access information about their specific firms. Moreover, the fundamental differences between the two reporting systems remain large and permit a decomposition of the overall gap only into broad categories.

I. D. The case for greater conformity

Part of the argument for greater conformity rests on the three fairly uncontroversial facts above. First, investors should be able to infer what a firm pays in taxes and the dual reporting system currently does not permit that. Second, investors and the government have a common interest in understanding what economic profits are and there is no reason to have two systems as there is a common goal. Finally, the large deviations that have arisen between the profits reported to capital markets and tax authorities are confusing and cloud the interpretation of corporate profits at the aggregate and corporate level.

While these facts relate to the difficulties created by the dual book system, there are also potential distinct advantages associated with adopting a greater degree of conformity. The latter two advantages described below – lower compliance costs and a potential lower tax rate on a broader base – are fairly straightforward. The other primary advantage associated with greater conformity is that greater conformity would limit opportunistic behavior by managers by taking away a margin of discretion that they appear to use opportunistically. In order to understand this advantage, it is important to take a detour through an emerging theory of how taxation and corporate governance interact. At the end of this brief subsection on corporate governance and taxation, I return to the implications of this view for the debate on whether greater alignment between tax and financial accounting makes sense.

1. The corporate governance view of taxation[5]

The basic intuition for how corporate governance and taxation interact builds on the realization that shareholders and tax authorities are both residual claimants on a firm's pretax cash flows. In essence, the state becomes the largest minority shareholder in every corporation through the corporate tax. Both shareholders and the state are worried about insiders (either managers or other large shareholders) not sharing those pretax cash flows appropriately, giving rise to a common interest between the tax authorities and shareholders. For example, efforts to undertake tax avoidance demand complexity and obfuscation to prevent detection by tax authorities. These characteristics, in turn however, can become a shield for managerial

[4] See, for example, Desai (2003) and Hanlon and Shevlin (2002, 2005).
[5] This section draws on Desai and Dharmapala (2007).

opportunism whereby shareholders are also made worse off. So, tax avoidance can give rise to managerial opportunism that then creates losses for both tax authorities and shareholders.[6]

This view can be thought of as, narrowly, an "agency perspective on tax avoidance" or, more broadly, as the "corporate governance view of taxation." In order to consider the relevance of this model, it is useful to provide some real-world illustrations of these interactions.[7] Initially attracted by the tax benefits of a shelter, Dynegy (an energy company) gave up plans to undertake the shelter when a journalist reported on the proliferation of such transactions. Their appetite for the shelter reappeared as investors began to question the quality of Dynegy's earnings. As a result of these pressures, managers began looking for devices to meet earnings and cash flow targets. Ultimately, they structured the tax shelter transaction so that it provided operating cash flows on Dynegy's financial statements. Indeed, the transaction size was determined by the amount of proceeds that would allow for a $300 million increase in operating cash flow and a 12 percent rise in net income. When the financial accounting treatment was in jeopardy, several Dynegy officials began maintaining two sets of documents in order to ensure that the transaction could close. Ultimately, several Dynegy employees admitted to federal fraud and conspiracy charges related to disguising a loan as operating cash flow, and one employee was convicted of those charges (Desai and Dharmapala, 2006a).

This brief summary of the Dynegy example provides some intuition for how sheltering activities might give rise to opportunities for managers to pursue activities designed to mislead investors. First, a tax-oriented transaction became desirable when it morphed into a vehicle for misleading the capital markets. Second, features of the transaction designed to make it more opaque to the capital markets were justified on the basis of secrecy, supposedly necessitated by tax objectives. Finally, actions that served as the origins of the conspiracy to mislead the auditors were also justified on this same basis.

Earning manipulation was also central to Enron's extensive use of tax shelters. In summarizing various transactions, the Joint Committee on Taxation (JCT) concluded that Enron's management realized quickly that tax-motivated transactions could generate sizable

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[6] More formally, the technologies of tax avoidance and managerial diversion can be thought to be complementary. That is, undertaking tax avoidance can reduce the costs of undertaking managerial diversion or, alternatively, reduce the likelihood of detection. This complementarity is modeled in Desai, Dyck, and Zingales (2007) as creating an interaction between resources diverted by managers and the amount of tax savings created by shelters. Another form of this complementarity is modeled in Desai and Dharmapala (2006a) as creating an interaction between the ability to reduce taxable income and inflate book income in a setting of dual reporting.

[7] Such examples are necessarily taken from court proceedings and thus reflect the experiences of firms caught in malfeasance. Nonetheless, the examples are illustrative of the broader phenomena, and they also point to the more widespread nature of these activities. This logic can also be understood by a hypothetical example. Suppose that managers of a firm begin creating several special purpose entities (SPEs) in tax havens. These entities are rationalized as providing the means for reducing tax obligations. The details of the structures and transactions cannot be explicated fully or widely, explains management, due to the likelihood of detection by the tax system and the revocation of those benefits. Such structures and secrecy may also allow managers the ability to engage in various activities that may be harmful to shareholders. More specifically, such entities may facilitate earnings manipulation (by creating vehicles that can manufacture earnings without enabling investors to understand their source), the concealment of obligations (by taking on debt that is not fully consolidated), or outright diversion (by allowing for insider transactions that are not reported widely). The secrecy laws of tax havens may well assist managers in obscuring these actions, all of which are rationalized as tax avoidance undertaken for the shareholders' benefit.

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” (JCT, 2003).

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” (JCT, 2003). 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. 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.

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” (JCT, 2003).

These examples illustrate how central financial accounting motivations are to undertaking tax shelters. Desai and Dharmapala (2006b) provide a more general stylized example of how earnings manipulation goals can be facilitated by tax shelters. The wider theme here is that tax shelters may provide diversionary opportunities through obfuscation that is easily rationalized as tax avoidance, as in the Sibneft example in Desai, Dyck, and Zingales (2007). These interactions between avoidance decisions and managerial misbehavior are the critical grounding of the corporate governance view of taxation.

Empirically, the corporate governance view of taxation appears to have validity. In evidence from Russia, Desai, Dyck, and Zingales (2007) show that a Putin administration’s crackdown on tax evasion by corporations in 2000 led to an *increase* in market value in the firms targeted, and that the voting premia for these firms (a proxy for private benefits of control) declined. Indeed, contemporaneous accounts of the crackdown 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 and is consistent with tax authorities providing meaningful monitoring that is beneficial to investors.

While the international evidence discussed above may seem far removed from the developed 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 (2006a) construct a proxy for tax avoidance activity based on so-called "book-tax gaps" – the difference between financial income as reported to shareholders and an estimate of the tax income reported to the IRS.

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 and to market values to understand how markets value tax avoidance. The results presented in Desai and Dharmapala (2006a) indicate a negative relationship between the use of 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. Moreover, 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 (2006c) 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.[8] Consistent with this prediction, they find that the impact of tax avoidance on firm value 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 model. It also holds when a 1997 change in tax regulations is used as a source of exogenous variation in tax avoidance activity.

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 (2007) study market reactions to news reports about tax sheltering activity by corporations. 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 (2006a) and outlined above. Similarly, Desai and Hines (2002) study market reactions to corporate expatriations or inversions – transactions in which a U.S. 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 U.S. tax on foreign-source income and possibly also the avoidance of tax on U.S. 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

[8] 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 they may engage in, 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.

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 (2006) 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.

What are the implications of the corporate governance view of taxation for the conformity debate? First, a system characterized by greater conformity allows for an additional monitor, the IRS, to review the same profit reports that financial investors receive. Second, 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.[9]

2. Lowered compliance costs

The case for conformity 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 ranges widely from three to thirty percent. Regardless of the range of these estimates, these costs are thought to be highly regressive, across firm size. And, 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.[10]

3. Reduced tax rates on a broader base

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 allow for 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 and firms responding, as one might expect, by reducing their tax obligations in other ways. Coupling a move toward greater conformity 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.

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[9] An example of this is the recent debate over uncertain tax positions and their accounting. See Gretchen Morgenson, "A Tax Secret Emerges from the Murk" *The New York Times*, January 14, 2007.

[10] 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.

Understanding the precise magnitude of the feasible tax cut requires much more analysis. Rough estimates, elaborated on in Desai (2005), suggest that a 15% tax on reported profits could generate the same revenues as the corporate tax does now. Emphasizing the experience of 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%. 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.

I. E. Concerns over greater conformity

There are two primary concerns about greater conformity that arise repeatedly in current debates.

1. Political considerations

The primary difficulty with advancing toward greater conformity 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 measures as a default, with then accepted departures dictated by policy makers.

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. Indeed, one such example relates to the treatment of option expensing. With greater conformity, 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.

2. Loss of information

Critics of conformity 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.[11]

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 –

[11] See for example Hanlon, LaPlante, and Chevlin (2005).

are associated with less informative earnings.[12] Indeed, studies by scholars in countries with conformity experiences (such as Schön, 2005) suggest that many of the concerns over conformity are overstated.

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.[13]

I.F. The international experience with greater conformity

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.[14]

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 Tax Base. 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.

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

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[12] The few 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.

[13] 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.

[14] For more on the evolution of IFRS, see Armstrong, Barth, Jagolinzer, and Riedl (2007).

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.[15] 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.

II. Incentive compensation and its relation to accounting and tax considerations

This section lays out the important role of stock options in incentive compensation, some of the problems created by their use and the role of accounting and tax factors in their use. Finally, some international experience with the tax treatment of options is considered.

II. A. The scope and importance of stock options

Any discussion of stock options and incentive compensation should begin with an appreciation of the problem such instruments are designed to solve. When the ownership and control of public corporations are separated, the managers who run corporations may advance their own interests instead of the interests of shareholders. This agency problem is considered foundational by most economists to understanding how the modern U.S. corporation is governed and how it performs. A critical element to addressing this problem is the use of financial instruments in managerial compensation packages to align their interest with the interests of shareholders. A common variant of this is the granting of stock options to managers.

Figures 1a and 1b provides some simple descriptive statistics on the nature of CEO compensation over the last 15 years based on a widely used dataset employed for analyzing incentive compensation. For these purposes (and consistent with the new accounting rules), CEO compensation is defined to include the value of stock option grants rather than stock options exercises. Several trends are apparent from the figures. First, the magnitude of CEO compensation relative to firm profits rose through the 1990s and has retreated since the early 2000s. Second, the composition of compensation has changed significantly over time as options grew considerably more important through the 1990s. Third, options have recently declined in importance and have been displaced by a variety of other non-cash arrangements. It is clear that any accounting and tax changes to options must be made judiciously given their centrality to compensation arrangements. See Frydman and Saks (2007) and Lemieux, MacCleod, and Parent (2007) for detailed studies of the scope of incentive compensation for executives and the workforce more generally.

Several exhaustive reviews of the literature on stock options exist, such as Murphy (1999), exist obviating the need for a detailed review of their consequences. Several difficulties

[15] Indeed, some commentators have suggested that the dominant trend is toward alignment.

associated with their use have become more apparent recently and can usefully be highlighted here. First, unlike owning straight stock, owners of option contracts face specific stock prices and dates (vesting dates) that can create incentives to meet short term targets.[16] Second, as shown by Rajgopal and Shevlin (2002), Coles, Daniel, and Naveen (2006) and the literature referenced therein, managers with option contract undertake distinctive patterns of finance investment that demonstrate increased risk taking. Third, several commentators have argued, as in Bebchuk and Fried (2004), Bebchuk and Grinstein (2005), and and Bebchuk, Grinstein, and Peyer (2006a, 2006b) that incentive compensation is inherently complicated by the fact that CEOs and directors effectively set their own compensation. Finally, there is some tentative evidence that option grants are associated with an increased likelihood of aggressive accounting or accounting fraud.[17]

II. B. Accounting and Tax Considerations

Do the accounting and tax treatments of stock options influence their use? With respect to the accounting treatment of options, financial accounting does appear to influence option granting behavior, as suggested in early work by Matsunaga (1995). The recent changes in accounting standards have provided researchers the opportunity to study this further and they confirm the role of financial accounting in influence option decision making. For example, Brown and Lee (2007) find that firms most likely to reduce option compensation based on accounting considerations are in fact those that subsequently reduced the use of options the most. In addition to the effects on the types of compensation, Bartov and Hayn (2006) investigate the impact on market valuations. Specifically, they find that the net effect of options expensing on valuation has been, on average, positive due to increased transparency. As such, increased disclosure has been beneficial to market values due to increasing investor confidence in the financial reports.

With respect to the role of taxes and the structure of executive compensation, the evidence is more mixed. Frydman and Saks (2007) report a meaningful role for progressive taxation in altering the nature of executive compensation packages by analyzing changes in executive compensation over a long time series. Perry and Zenner (2001) analyze the impact of Section 162(m)[18] on the composition of executive compensation, concluding that it led to an increase in stock-based forms of compensation (and thus contributed to the rapid growth of incentive pay for executives during the 1990's). However, Rose and Wolfram (2002) find no

[16] For example, see Jensen (2001) for a discussion of the difficulties created by the non-linearities in option contracts. For one example of how options can change behavior, see Bergstresser, Desai and Rauh (2006). For an interesting example of corporate efforts to modify option contracts to reduce this discretion, see the account of recent efforts by Level-3 described in Phred Dvorak, "Tweaking the Stock Option Grant" *The Wall Street Journal*, April 30, 2007. For a more radical proposal on stock options, see Desai and Margolis (2006).

[17] See, for example Bergstresser and Philippon (2006), Kedia and Philippon (2007), Harris and Bromiley (2007), and Ryan, Johnson, and Tian (2007). The recent backdating cases appear to have a limited relationship to the tax treatment of options. There is some possibility that if the taxable event had been the grant date that an additional set of internal monitors (tax lawyers) would have to have been consulted about the validity of the practice. For descriptive accounts of these activities and a legal analysis, see Walker (2007) and Fleischer (2007). For the original research on backdating, see Lie (2005) and Heron and Lie (2006, 2007).

[18] Responding to apparent public concern about the size of CEO salaries, Congress in 1993 enacted Section 162(m) of the tax code, limiting firms' deductibility of executive compensation to $1 million, except where the compensation is "performance-based."

such impact, and attribute the contrary findings of Perry and Zenner (2001) to mean reversion in executive compensation.

While accounting appears to play a clear role in dictating the form of compensation, the effects of taxation are more suggestive of a role.

II. C. International experiences

No other country has quite the same pervasive use of stock options as the U.S.[19] Nonetheless, a brief investigation of how other countries treat the taxation of stock options is worthwhile to see if the system currently employed in the U.S. is the natural or dominant practice. Tables 1 and 2 provide a fairly exhaustive review of how other countries treat options at the individual and corporate level.[20] As the tables demonstrate, there is considerable heterogeneity in how countries treat options, ranging from no corporate deduction to deduction at exercise.

One country where the tax treatment is quite different from the U.S. and where research has been done is Canada. Specifically, there is no tax deduction at the corporate level for option compensation and, until recently, there was no accounting consequence. For more information on this example, see Klassen and Mawani (2000) and Mawani (2003a, 2003b). In this setting, there is further evidence of accounting, in the absence of any conflicting tax considerations, driving the use of stock options.

The heterogeneity of tax treatments internationally is clearly not decisive as to what the U.S. should do. Nonetheless, the variety of experiences globally suggests that there is room for reconsideration of the current U.S. treatment to ensure that it advances the appropriate incentives.

III. Aligning the tax treatment of stock options with the accounting treatment

Switching the timing and value of the corporate tax deduction of stock options to be in alignment with the accounting treatment has several potential advantages.

First, and most obviously, the accounting treatment is based on a reasoned analysis of the appropriate treatment of executive compensation by accounting professionals and standard setters. Bringing the tax treatment in line with the accounting treatment would capitalize on the depth of this analysis. The question before shareholders and tax authorities is the same: what is the value of this compensation and what period is it associated with? It is not clear why the answer of tax authorities should differ from the conclusions of shareholders and accounting standard setters.

Second, as with other movements toward conformity, ensuring that there is one definition of an expense reduces the ability of managers to game the distinction between tax and financial accounting definitions. In this particular case, the use of options could no longer be rationalized as capitalizing on the generous tax deductions that are associated with deductions of exercises versus grants. As such, reconciling accounting and tax treatments would allow for managers and

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[19] There are a few studies of comparisons between the U.S. and other countries. See, for example Conyon and Murphy (2000) and Conyon, Core, and Guay (2007).

[20] This material is drawn from OECD (2005). This publication provides a more thorough review of alternative treatments. See also European Commission Entreprise Directorate-General (2003).

investors to make incentive compensation decisions based on their merits without any distortions.

Third, the typical concerns about conformity are likely limited in this setting. It is not clear why lobbying over the treatment of stock options, which has been considerable, would change given the accounting rulings. Nor is it clear why there would be an informational loss to investors. As the evidence on the recent accounting change indicates, simpler disclosure that makes expenses more clear can increase market values and a similar result may obtain with a simpler treatment of tax expenses.

Finally, as the international comparisons presented above make clear, there are precedents for alternative treatments of the tax deduction including deduction at time of exercise and greater alignment with financial accounting definitions in taxation.

Are there offsetting concerns associated with implementing such an alignment? First, it would have be to decided if the treatment of options compensation at the individual level would still need to be coupled with the corporate treatment, as dictated by the matching principle in Section 83 of the IRS code. If the two remain joined, this could raise issues associated with phantom income at the individual level and whether the valuation of grants at the corporate and individual level need necessarily be the same. Second, creating a deduction for stock options at grant will inevitably raise questions of how to treat other compensation arrangements (such as deferred compensation, bonus plans, etc.). As such, it may be useful to revisit the bundle of possible arrangements to ensure some consistency. Finally, estimating the revenue consequences of implementing such a change would be a novel challenge for revenue estimators. But, while considerable, these professionals face more complex problems regularly and are not deterred by such complexities.

In conclusion, this review of the current dual reporting system, the international experience with conformity and expensing stock options, and the review of incentive compensation suggests that aligning the tax treatment with the new accounting rules could preserve the benefits of incentive compensation, reduce current distortions to that choice, and result in a simpler income reporting system.

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Table 1: The taxation of stock options for personal income tax purposes*

Scheme	Benefit as ordinary income	Basis of valuation	Timing of taxation	Notes
AUSTRALIA				
Standard	Yes	Market value	Grant	Medicare levy (0.015) not deductible
Concessionary (1)	Yes	Net value	Exercise	Medicare levy (0.015) not deductible
Concessionary (2)	Yes	Net value (first AUD 1000 deducted)	Grant	Medicare levy (0.015) not deductible
	Yes	Net value (exceeding AUD 1000)	Grant	Medicare levy (0.015) not deductible
AUSTRIA				
Standard	Yes	Net value (up to 50% tax exempt)	Exercise	
	Yes	Net value	Exercise	
BELGIUM				
Concessionary	Yes	15% of the value of the shares.	Grant	
	Yes	7.5% of the value of the shares.	Grant	
CANADA				
Concessionary (public company)				
(i)	Yes	Net market value	Exercise	
(ii)	Yes	50% of net market value	Disposal of shares (if certain conditions are met)	
Concessionary (private company)				
(i)	Yes	Net market value	Disposal of shares	
(ii)	Yes	50% of net market value	Disposal of shares	
Concessionary (phantom)				
(i)	Yes	Market value of bonus paid	Year payment / bonus is received	
(ii)	Yes	50% of market value of bonus paid	Disposal of shares	
Profit sharing plans	Yes	Value of contributions	Year they are made	
CZECH REPUBLIC				
Standard	Yes	Net market value	Grant	
DENMARK				
Standard	Yes	Market value	Exercise	
Concessionary (1)	No	Net market value	Disposal of shares	Benefit taxed as capital gains.
Concessionary (2)	No	Net market value	Disposal of shares	Benefit taxed as capital gains.
FINLAND				
Standard	Yes	Net fair market value	Exercise	
France				
Concessionary (1)-(2)-(3)	No	Net fair market value	Cash	
GERMANY				
Standard (i)	Yes	Net market value (annual allowance)	Exercise	
Standard (ii)	Yes	Net market value	Exercise	
GREECE				
Standard	Yes	Net fair market value	Exercise	
Concessionary	Yes	Net fair market value	Exercise	
Hungary				
Standard	Yes	Net market value	Exercise	
Incentive pay scheme	No	Net value	Cash	Benefit not treated as ordinary employment income
ICELAND				
Standard	Yes	Net market value	Exercise	
Concessionary	No	Net value	Disposal of shares	Benefit taxed as capital gains.

* Tables 1 and 2 are from Organisation for Economic Co-Operation and Development. 2005. "The Taxation of Employee Stock Options." *OECD Tax Policy Studies* 11.

Table 1: The taxation of stock options for personal income tax purposes (cont'd)

IRELAND				
Standard	Yes	Net value	Exercise	
Concessionary (Approved share option schemes)	No	Net market value	Disposal of shares	Provided certain conditions are met benefits are taxed as capital gains. Exemption up to the annual limit applies.
Concessionary (Approved savings related share option schemes)	No	Net market value	Disposal of shares)	Provided certain conditions are met benefit are taxed as capital gains. Exemption up to the annual limit applies.
ITALY				
Standard	Yes	Net value	Grant	
Concessionary	No	Difference between sale price of shares and strike price	Disposal of shares	Benefits are taxed as capital gains.
Incentive pay scheme	No	Difference between sale price and value of the shares at grant	Disposal of shares	Benefits are taxed as capital gains.
JAPAN				
Standard	Yes	Net market value	Exercise	However, provided certain conditions are met benefits are taxed as capital gains at the time of disposal of shares.
KOREA				
Standard	Yes	Net market value	Exercise	
Concessionary	Yes	Net market value	Exercise	
LUXEMBOURG				
Standard				
Options librement négociables	Yes	Net value	Grant	
Options individuelles (i)	Yes	Net value	Exercise	
Options individuelles (ii)	Yes	Net value reduced by 5% each year (until 20%)	Exercise	
MEXICO				
Standard	Yes	Net value	Exercise	
Profit sharing plans	Yes	Paid value (exemption up to 15 days of the minimum wage)	Cash	
NETHERLANDS				
Standard (1)	Yes	Economic value	Grant	
Standard (2)	Yes	Actual obtained profit	Exercise	
NEW ZEALAND				
Standard	Yes	Net market value	Exercise	
NORWAY				
Standard	Yes	Net value	Exercise	
POLAND				
Standard	No	Net market value	Exercise	
PORTUGAL				
Standard	Yes	Net market value	Exercise	
SLOVAK REPUBLIC				
Standard	No	Capital gain on shares	Disposal of shares	Benefit taxed as capital gains.
SPAIN				
Standard				
(i)	Yes	70% of net value	Exercise	
(ii)	Yes	100% of net value	Exercise	
Incentive pay scheme				
(i)	Yes	Value (up to a maximum value of EUR 3 005 per year)	grant	
(ii)	Yes	Value (exceeding EUR 3 005 per year)	grant	

Table 1: The taxation of stock options for personal income tax purposes (cont'd)

SWEDEN				
Standard	Yes	Net market value	Exercise	
SWITZERLAND				
Standard	Yes	n.a.	Exercise or grant	
TURKEY				
Standard	Yes	Market value	Grant	
UK				
Standard (Unapproved schemes)	Yes	Net gain	Exercise	
Concessionary (CSOP, SAYE, EMI)	No	Net market value	Disposal of shares	Assuming scheme conditions are met, benefits are taxed as capital gains determined as the difference between share disposal proceeds and the actual price paid for the shares, plus the cost of the option (if any). Annual exemption applies.
Share Incentive Plan (SIP)	No	Net market value	Disposal of shares	Assuming scheme conditions are met, benefits are taxed as capital gains determined as the difference between share disposal proceeds and their value on the date they are withdrawn from the plan, plus costs of disposal. Annual exemption applies.
Restricted share awards	Yes	Net gain	Acquisition + lifting of each restriction or sale, whichever is earlier	Income Tax and Class 1 National Insurance Contributions liabilities at acquisition on proportion of value reflecting restrictions. Further liabilities when restrictions lifted on proportion of value released at that time. Employer and employee may 'elect' to pay income tax and NICs on full market value at time of acquisition.
Convertible share awards	Yes	Net gain	Acquisition + conversion or sale, whichever is earlier	Income Tax and Class 1 National Insurance Contributions liabilities at acquisition on value of shares, but ignoring right to convert. Further IT & NIC liabilities when conversion takes place, on difference in value between new shares acquired and shares given up.
US				
Nonqualified stock options	Yes	Net fair market value	Exercise	
Incentive stock options	No	Net fair market value	Disposal of shares	Benefit taxed as capital gains.
Employee stock purchase plans	No	Net fair market value	Disposal of shares	Benefit taxed as capital gains.

Table 2: Tax treatment of stock options at corporate level.

Scheme	Deduction for employee stock option compensation	Notes
AUSTRALIA		
Standard and concessionary	No	When stock options are met with newly issued shares the company is not entitled to the deduction. It would be entitled for purchased shares (but this scenario is unlikely)
AUSTRIA		
Standard	No	-
BELGIUM		
Concessionary	No	-
CANADA		
Concessionary (public company)	No	-
Concessionary (private company)	No	-
Concessionary (phantom)	Yes	-
Profit sharing plans	Yes	-
CZECH REPUBLIC		
Standard	Yes	If the stock options are sold or granted to employees not as part of work-related remuneration they are not deductible
DENMARK		
Standard	Yes	-
Concessionary (1)	No	-
Concessionary (2)	Yes	-
FINLAND		
Standard	Yes	When stock options are met with purchased shares. When stock options are met with newly issued shares the company is not entitled to the deduction.
FRANCE		
Concessionary	Yes	When stock options are met with purchased shares. When stock options are met with newly issued shares the company is not entitled to the deduction.
GERMANY		
Standard	Yes	Provided that the employee pays personal income tax on the benefit.
GREECE		
Standard	Yes	-
Concessionary	No	-
HUNGARY		
Standard and incentive scheme	No	-
ICELAND		
Standard	Yes	However, there is no legislative provision as to the treatment of stock options in company accounts or in tax legislation as such.
Concessionary	No	-
IRELAND		
Standard	No	-
Concessionary (Approved share option schemes)	No	-
Concessionary (Approved savings related share option schemes)	No	-
ITALY		
Standard and concessionary	Yes	However, the deduction is not allowed from the regional corporate income tax (IRAP)
JAPAN		
Standard	Yes	When stock options are met with purchased shares. When stock options are met with newly issued shares, the company is not entitled to the deduction.
KOREA		
Standard and concessionary	Yes	When stock options are met with purchased shares. When stock options are met with newly issued shares, the company is not entitled to the deduction.
LUXEMBOURG		
Standard	Yes	-
MEXICO		
Standard	Yes	The loss from the sale of stocks to the employee below market value, if it qualifies as a loss from a plain sale of stocks, is deductible for the corporation only against profits from other sales of stocks, with the possibility of carry forwards.
Profit sharing plans	No	-
NETHERLANDS		
Standard	Yes	The costs of the option at the moment of grant are deductible
NEW ZEALAND		
Standard	No	-

Table 2: Tax treatment of stock options at corporate level (cont'd)

Scheme	Deduction for employee stock option compensation	Notes
NORWAY		
Standard	Yes	When stock options are met with purchased shares
POLAND		
Standard	Yes	When stock options are met with purchased shares
PORTUGAL		
Standard	Yes	The costs are deductible if accounted for as staff costs.
SLOVAK REPUBLIC		
Standard	No	
SPAIN		
Standard	Yes	Spanish companies can only obtain a corporate tax deduction provided the company incurred a real expense. Companies cannot deduct the opportunity cost associated with issuing new shares.
Incentive pay scheme	Yes	Spanish companies can only obtain a corporate tax deduction provided the company incurred a real expense. Companies cannot deduct the opportunity cost associated with issuing new shares.
SWEDEN		
Standard	Yes	-
SWITZERLAND		
Standard	Yes	-
TURKEY		
Standard	Yes	-
UK		
Standard and concessionary schemes	Yes	Automatic for accounting periods starting from 1 January 2003 or later. Only sometimes possible for earlier accounting periods using a case law deduction.
SIP	Yes	-
US		
Nonqualified stock options	Yes	-
Incentive stock options	No	-
Employee stock purchase plans	No	-

Figure 1a: CEO Compensation by Source (Annual Mean Percentage)

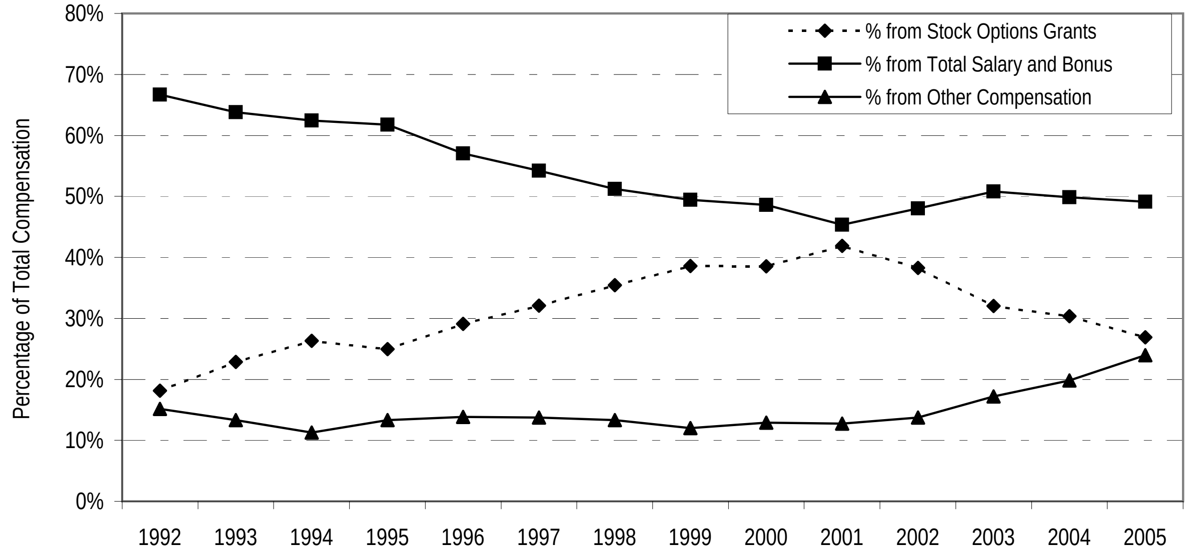
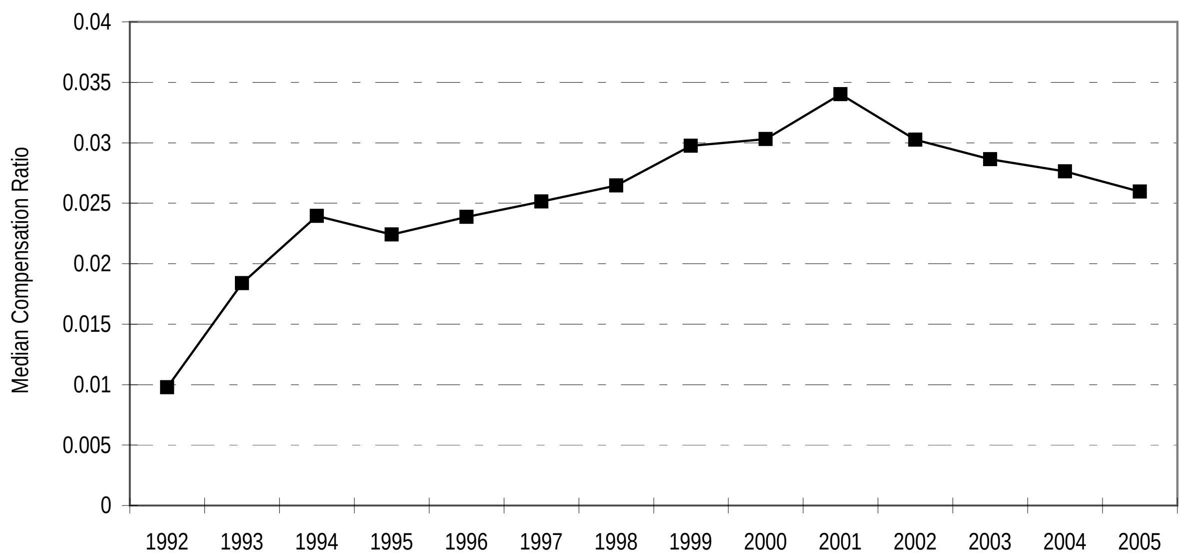


Figure 1b: CEO Total Compensation Relative to Net Income (Annual Median Ratio)



Note: Figure 1 uses a Compustat database that includes measures of executive compensation and firm data. This series began in 1992, with 433 CEOs included in the dataset. The number of CEO observations was 1156 in 1993 and over 1500 every year after. Figure 1a shows the mean by year of percentage of CEO compensation derived from each of three sources: Salary and Bonus, Stock Options Grants, and Other Compensation. Stock Options Grants are option grants valued by the Black-Scholes method. When this value is missing in the dataset, we assumed that the CEO received Stock Options Grants equal to zero. Other Compensation includes restricted stock grants, LTIP payouts, and other non-salary, non-bonus compensation. According to Compustat definitions this includes severence, debt forgiveness, imputed interest, payouts for cancellation of stock options, payment for unused vacation, tax reimbursements signing bonuses, 401K contributions, life insurance premiums, perquisites and other personal benefits, abover market earnings on restricted stock, earnings on LTIP paid during the year but deferred, and difference between the price paid and actual market price for stock under a stock purchase plan not generally available to other shareholders or employees. Figure 1b shows the median by year of the ratio of CEO compensation to firm net income when net income is positive. Net Income is defined by Compustat as Net Income after Extraordinary Items and Discontinued Operations
Source: Standard & Poors's Compustat(R) Execucomp Data, accessed May 23, 2007.