15/7/04

Executive Stock Option Disclosure: Are Current Accounting Standards Adequate?

Geoffrey Poitras*

Faculty of Business Administration
Simon Fraser University
Burnaby, B.C.
CANADA V5A 1S6

email: poitras@sfu.ca
Phone: 604-291-4071

* Geoffrey Poitras is a Professor of Finance at Simon Fraser University. The valuable research assistance of Mihai Popescul is gratefully acknowledged. Helpful comments were received from members of the Accounting Research Workshop at Simon Fraser University.

Executive Stock Option Disclosure:
Are Current Accounting Standards Adequate?

"You issue stock options to reduce compensation expense and therefore increase your profitability."
Jeffrey Skilling, former CEO of Enron Co.

I. Introduction

It is well known that the executive compensation landscape has changed dramatically since the Accounting Principles Board issued Opinion 25 (APB 25) in 1972. In particular, there has been significantly expanded usage of stock based compensation with contingent features. Such compensation schemes include plans aimed at executives as well as lower ranking employees. Though the introduction of Financial Accounting Standard 123 (FAS 123) addressed certain issues surrounding the accounting for employee stock options *(ESO*s), a range of unresolved issues has resulted in a number of subsequent statements and interpretations.[1] Because FAS 123 aimed to establish "a fair value based method of accounting for stock based compensation plans" (FASB 1995, p.6), considerable academic attention has been given to valuation of the various stock option features that could be used, e.g., Core et al. (2003), Johnson and Tian (2000), Hemmer et al. (1998, 1994). Relatively less attention has been given to the full disclosure aspect of FAS 123 (FASB 1995, §45-48). The primary objective of this paper is to demonstrate that current and proposed disclosure requirements do not result in sufficient enough information being provided to assess the fair value of executive stock option (*ExSO*) plans.

In the aftermath of the accounting debacles at Enron and Worldcom, the problem of inadequate disclosure of stock based compensation has attracted considerable attention. Some of these disclosure issues are addressed in recent changes to SEC filing requirements. Other issues are addressed in the recently released FASB Exposure Draft (FASB 2004) that requires mandatory expensing of *ESO*s,

bringing US standards in line with recent changes in International Accounting Standards Board (IASB) standards . However, despite the intense scrutiny and discussion, sufficiently precise details about the fair value of *ExSO*s as well as the *ExSO* structures being used still are not adequately reported in the relevant publicly available information sources: the proxy statement and the 10-K. In order to illustrate the rationale for isolating the *ExSO* component of *ESO* plans, section II of this paper examines the literature on the use and incentive effects of different *ESO* and *ExSO* schemes. Section III reviews the *ESO* and *ExSO* disclosure requirements mandated by FASB standards and relevant SEC regulations. Section IV examines the difficulties in determining a fair value for *ESO*s and *ExSO*s and provides a taxonomy for the various types of *ExSO*s that need to be identified. In Section V, this discussion is supported with examples of actual *ExSO* reporting from two firms that are substantial users of stock-based compensation – Cisco Systems and Microsoft – and one firm – Amgen – that uses complex *ExSO* designs. Section VI provides a summary of the paper.

II. Use and Incentive Effects of *ExSO*s

Various studies have documented the dramatic increase in stock option grants to employees that took place during the 1990's. For example, Hall and Murphy (2003) find the average outstanding amount of *ESO*s for an average S&P 500 firm increased over tenfold from $22 million in 1992 to $238 million per company in 2000.[2] Over 90% of *ESO*s were given to employees other than the top five executives, with the share of stock options granted to the CEO falling from over 7% to under 5%.[3] At the same time, the average real pay of CEO's for S&P 500 companies increased from $3.5 million to $14.7 million, driven largely by increases in compensation paid through *ExSO*s. Given the small size of *ExSO*s relative to total *ESO*s, *ExSO*s play a secondary role in the debate over the accurate 'expensing' of contingent stock based

compensation. Rather, information about *ExSO*s reflects more on qualitative issues associated with corporate governance. For purposes of making such qualitative assessments, disclosure of the specific terms and fair value for *ExSO*s in the annual report and proxy statement, produced under current FAS 123 and SEC regulation guidance, is inadequate to ensure accurate assessments are possible.

Four basic components of present-day executive compensation can be identified: a base salary; an annual bonus tied to accounting performance; stock options; and, long-term incentive plans, including restricted stock plans and multi-year accounting-based performance plans, e.g., Murphy (1999, p.3). Of these components, a dramatic escalation in stock option compensation has been extensively documented. For example, using data from the Compustat ExecuComp database, Murphy (1999) shows that the median cash compensation paid to S&P CEOs, in 1996-constant dollars, more than doubled since 1970 while the median total realized compensation, including gains from exercising stock options, nearly quadrupled, almost twice the increase in the median cash compensation for the same period. Analyzing more recent data, Murphy (2002) finds that the median total compensation in CPI-adjusted 2000-constant dollars nearly tripled, from $2.3 million in 1992 to over $6.5 million in 2000. Hall and Murphy (2000) determine that the grant-date value of stock options accounted for 25% of total pay for S&P 500 CEOs in 1992 and 40% in 1998. Murphy (2003) finds that, over the 1990s, the stock option component of CEO pay for the S&P 500 Industrials, valued on the grant date, increased five times in dollar terms, from 27 percent in 1992 to 51 percent of total compensation in 2000.

At least since Berle and Means (1932, p.139), it has been recognized that the "almost complete discretion in management" possessed by top executives at publicly traded companies creates what Jensen and Meckling (1976) refer to as an "agency problem". This problem can lead to a range of situations

where managers do not adhere to the objective of shareholder value maximization . Resolution of the agency problem has generated numerous theoretical solutions that fall within the general category of optimal contracting models, e.g., Core et al. (2003), Murphy (1999). These models start from the premise that the agency problem can be resolved by providing management with compensation schemes that contain cost-effective incentives designed to achieve the objective of shareholder value maximization. Though a number of price and non-price performance measures can be combined to form an optimally weighted contract, e.g., Core et al. (2003), *ExSO*s play a key role in the design of such optimal executive compensation contracts. As Murphy (1999, p.53) observes: "pay-performance sensitivities are driven primary by stock options and stock ownership and not through other forms of compensation". The issue of whether "standard agency models" can adequately capture CEO compensation is a continuing subject of debate, e.g., Prendergast (2002). This debate addresses a number of issues, including the issue of whether actual compensation practices for senior executives are consistent with optimal contracting. Hall and Murphy (2003, p.61) claim that the evidence on this point "reveals problems in the design of top-executive options and suggests that options are ... highly inefficient".

While the optimal contracting approach seeks to explain *ExSO* design in terms of shareholder value maximization, the "managerial power" approach views *ExSO*s in terms of rent seeking: *ExSO* design depends on the ability of executives to exert influence over the process of setting compensation (Murphy 2002, Bebchuk and Fried 2003). In order to avoid "outrage" at excessive compensation, executives employ various techniques to "camouflage" actual compensation.[4] These techniques include *ExSO*s, post-retirement benefits and executive loans. Given the central role that the board of directors has in setting executive compensation, the managerial power approach finds support in evidence on the relationship

between board composition and compensation decisions. This evidence includes results such as: CEO compensation is 20-40% higher when the CEO is also the chairman of the board (Cyert et al. 2002); the less pressure-resistant are institutional investors, the lower is the level of CEO compensation (David et al. 1998); higher levels of stock ownership by board members reduces the amount of non-salary executive compensation (Cyert et al. 2002); and, "luck-based" compensation, such as most forms of *ExSO*s, is higher in firms without large shareholders (Bertrand and Mullainathan 2001).

In addition to these general theoretical approaches, a number of specific tax and accounting explanations have been advanced to explain the design and use of *ExSO*s. These other explanations include the $1 million tax deduction limitation for executive compensation: under the Internal Revenue Code §162(m), the corporate tax deduction for compensation paid to the CEO and the next four highest-paid executives is limited to $1 million per person, unless the compensation plan is approved by shareholders, based on performance and administered by a committee of outside members on the company's board of directors. *ExSO*s provide a tax-advantaged method of compensating executives. In addition, both *ExSO*s (and *ESO*s) provide a number of potential tax benefits for both the firm and the employee, e.g., Hanlon and Shevlin (2002). These tax incentives can be combined with the favorable accounting treatment afforded to *ExSO*s (and *ESO*s) under APB 25 where at-the-money stock option grants do not impact the primary financial statements during the grant period. While commonly recognized by practitioners as a key reason for granting *ExSO*s, this disparity between the "perceived cost" as measured by the accounting statements and the 'true' economic cost depends on the inability of security market participants to see through this 'illusion'.[5]

III. Current Disclosure Requirements

To the uninitiated, the current state of accounting rules for equity-based compensation is confusing. In the absence of mandatory expensing, the accounting standard employed by many firms is APB 25. This standard was implemented in 1972, one year prior to the appearance of both the Financial Accounting Standards Board (FASB) and the Black-Scholes formula for valuing exchange traded options (Black and Scholes 1973). The APB 25 standard permits companies to account for *ESO*s using 'intrinsic value': the difference between the stock price and the option exercise price.[6] The general practice of making option grants at-the-money produces an intrinsic value of zero, on the grant date, for accounting purposes. On the surface, this practice appears misguided. The *ExSO*s and other *ESO*s have value, otherwise firms would not be awarding these options. The difficulty arises in determining a "fair value" for the compensation. Following the release of two FASB Interpretations (FASB 1978; FASB 1984), the FASB set about developing an accounting standard for stock-based compensation that would recognize the fair-value of such grants. After a decade of attempting to formulate a generally acceptable method of expensing stock options at "fair value", the FASB introduced FAS 123 in 1995. It is this standard that is the subject of current scrutiny, both in the US Congress and in the recent FASB exposure draft on equity-based compensation (FASB 2004).

The failings of FAS 123 are well documented. The most apparent deficiency appears in §5 of the Statement:

> Because of the perceived deficiencies in Opinion 25, early in the 1980's the AICPA ..., the staff of the Securities and Exchange Commission, most of the larger accounting firms, industry representatives, and others asked the Board to reconsider the accounting specified in Opinion 25. This Statement, which is the result of that reconsideration, establishes an accounting method based on the fair value of equity instruments awarded to employees as compensation that mitigates many

> of the deficiencies in Opinion 25. The Board encourages entities to adopt the new method. However, ***this Statement permits an entity in determining the net income to continue to apply the accounting provisions of Opinion 25***. [emphasis added]

While reluctantly adhering to the disclosure of a pro forma 'fair value' estimate of equity-based compensation in the notes, most firms elected to continue using APB 25 and not to expense stock option compensation in the financial statements. Though the recent public debate on the issue has prompted as many as 500 hundred firms – including about one-fifth of the S&P 500 – to adopt or announce an intention to adopt the expensing of stock options (Reilly 2004), there still is a deep-seeded reluctance by a large group of companies and trade associations to 'mandatory expensing'. Many in this group are members of the International Employee Stock Option Coalition (www.savestockoptions.org). Resistance to mandatory expensing has resulted in proposed legislation in Congress aimed at preventing mandatory expensing of *ESO*s while requiring expensing for *ExSO*s.. Though the prospects for the Stock Option Accounting Reform Act, (HR 3574 in the House and S 1890 in the Senate, 108th Congress) being passed are doubtful, the hearings on the bills provide a public platform for opponents and proponents of option expensing.[7]

The resistance to mandatory expensing is long standing. The following quote from the FASB announcing FAS 123 in 1995 is revealing:

> The debate on accounting for stock-based compensation unfortunately became so divisive that it threatened the Board's future working relationship with some of its constituents. Eventually, the nature of the debate threatened the future of accounting standards setting in the private sector ... the Board decided that the extent of improvement in financial reporting that was envisioned when this project was added to its technical agenda and when the Exposure Draft was issued was not attainable because the deliberate, logical consideration of issues that usually leads to improvement in financial reporting was no longer present.

The implication of this statement is that opponents to expensing options are 'illogical' and unwilling to engage in 'deliberate consideration' of the issue. Yet, as evidenced in the material and statements of those in the anti-expensing group, there is a desire to engage in reasoned debate and a logical counter-position to FAS 123 requirements is being presented. For example, the IESOC position on disclosure recommends quarterly reporting, while the current FASB and SEC standards only require annual reporting. In addition, the IESOC recommends against that the current practice of having *ESO* information detailed in the 10-K and the precise *ExSO* information in the proxy statement. Rather, IESOC recommends that activity for both types of options be regularly included in the 10-Q. In addition, the proposed organization and level of disclosure is, in some respects, more detailed than is currently required.

Where the IESOC differs dramatically with FAS 123 is in the disclosure of the 'fair value' of option grants. The quandary of FAS 123 is given in §19: "The fair value of a stock option ... granted by a **public entity** shall be estimated using an option-pricing model (for example, the Black-Scholes or a binomial model)". Similarly, in §21: "It should be possible to reasonably estimate the fair value of most stock options and other equity instruments at the date they are granted." The gist of the IESOC position against this approach was recently summarized by SEC Commissioner Paul Atkins: "putting a fair value on something as complicated as long term stock options is almost an impossible task ... FASB is basically getting into an area that's more of a political issue than a technical or accounting issue."[8] The Cisco Systems 2003 annual report (p.17-8) provides an even more precise statement:

> The Black-Scholes option pricing model was developed for use in estimating the value of traded options that have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of highly subjective assumptions, including the expected stock price volatility and expected life. ... Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input

> assumptions can materially affect the estimate, in management's opinion, the existing valuation models do not provide a reliable measure of the fair value of the Company's employee stock options.

In effect, mandating the expensing of all *ESO*s requires fair value estimates when no method of precisely determining such an estimate is available. On the contrary, mandatory expensing could possibly impair the financial statements, working against the stated objectives of FASB.

Into this already complicated situation, two administrative events have recently been added. The first event is a directive from the SEC to the FASB to bring about convergence of US GAAP with International Financial Reporting Standards (IFRS), e.g., FASB (2002a). Consistent with this objective, in October 2002 the FASB and the IASB announced the "Norwalk Agreement" – a memorandum of understanding that takes a number of steps towards such a convergence. The other significant administrative event is the issuance in Feb. 2004 of IFRS 2 (Equity Based Compensation) by the IASB. This standard will "require an entity to reflect in its profit or loss and financial position the effects of share based transactions, including expenses associated with transactions in which share options are granted to employees". The IASB plan is to have firms filing subject to IASB standards start mandatory expensing of options by Jan. 1, 2005. These two events give considerable leverage to those within FASB, the accounting profession and the financial services industry seeking to fast track mandatory *ESO* expensing.

While FASB may desire to make a decision on mandatory expensing that is unaffected by interference from the Congress and other interests, the far-reaching implications of this decision will not permit such an outcome. Though FASB is an 'independent' body established to "improve standards of financial accounting and reporting", there are binding constraints on this independence. The authority of FASB to set accounting standards stems from two sources: the SEC (Financial Reporting Release No. 1, Section

101) and the American Institute of Certified Public Accountants (Rule 203, Rules of Professional Conduct). Of these two sources, it is the SEC that has the statutory authority to establish financial accounting and reporting standards for publicly held companies. As FASB recognizes, SEC policy has been "to rely on the private sector for this function to the extent that the private sector demonstrates ability to fulfill the responsibility in the public interest". While requiring adherence to GAAP in making filings, there are a number of SEC regulations that come into play that complement or supercede FAS 123. In particular, Regulation S-K details information to be included in most filings to the SEC and Regulation S-B governs filings for small businesses. On the specific issue of *ExSO* disclosure, the key information source is the proxy statement filing which is governed by Rule 14 of the Securities Exchange Act (1934).

The importance of legislative authority in the current debate surrounding mandatory option expensing is reflected in the proposed "Stock Options Accounting Reform Act" currently being debated in the 108th Congress. This proposed legislation makes a sharp distinction between *ExSO*s and *ESO*s. In particular, according to the sponsors, the bill aims to address "concerns raised by corporate scandals at Enron and WorldCom and the role of enormous executive stock-option packages in attempts to fraudulently inflate earnings and corporate stock performance, while also taking into consideration the positive benefits of stock options for start-up companies and their employees." The implication is that there are two distinct elements in the option expensing debate. One element relates to corporate governance and impacts on disclosing the fair value of *ExSO*s. The other element relates to the economic role of *ESO*s and the disincentives that expensing would impose on firms that use this form of compensation for lower ranking employees. Both FAS 123 and the recently released exposure draft (FASB 2004) makes no substantive distinction between these two elements.

IV. A Taxonomy of *ESO* Awards

Despite various claims from proponents of *ESO* expensing, there is considerable support for the IESOC position that option pricing methods are not sufficiently precise to warrant mandatory inclusion of *ESO* expenses in the financial statements. For example, Malkiel and Baumol (2002) claim:

> Because employee stock options have durations of five to 10 years, are complicated by not vesting immediately, are contingent on continued employment and subject to various restrictions, it is virtually impossible to put a precise estimate on the option's value. Moreover, employee options cannot be sold, violating one of the key Black-Scholes assumptions.

This position is neither new or novel. Rubinstein (1995), for example, illustrates substantial variations in Black-Scholes estimates of *ESO* values from relatively small variations in required parameter inputs. Though there is some evidence that the Black-Scholes methodology provides accurate on-average estimates of the *ex post* cost of *ESO*s, e.g., Marquardt (2002), this does not imply that fair value estimates will be correct for specific *ExSO* plans that have complex features.

Like exchange traded stock options, *ESO*s are contracts that grant the holders the right to buy a given amount of common stock for a pre-specified term at a pre-specified exercise price. Murphy (1999, p.17), analyzing the option-grant practices of 1,000 large companies in 1992, finds that "the exercise price equals the grant-date fair market value in 95% of the regular option grants" and that "about 83% of the grants had ten year terms". While there are general similarities with exchange traded options, *ESO*s have additional features that are not present with exchange traded options. Vesting is a key feature of *ESO*s that differs from exchange traded options. In order to be exercisable, an option must be vested. *ESO*s typically become vested at a constant rate over time, for example 20% of the granted options will vest in each of the five years following the grant date. *ESO*s are European prior to vesting and have some form of

American feature between vesting date and expiry. Such options belong to a class of options referred to as Bermuda options (e.g., Hemmer et al. 1998). There will be a significant difference in the value of Bermuda options depending on whether the exercise can take place at any time between vesting and expiration (pure Bermuda option) or whether exercise can take place only on specific dates (tandem option). The method used to determine the stock price on the exercise date will also affect the value, e.g., the stock price can be set by using the average price over the month prior to exercise or by using the price on the exercise date.

Another feature of *ESO*s that is not present on exchange traded options is the employment status of the option holder, e.g., Hemmer (1994). Employment termination almost always triggers the forfeiture of unvested *ESO*s and reduces the remaining life of unexercised vested *ESO*s. Forfeiture is a key element because *ESO*s are specifically prohibited from being transferred or sold by holders, except in special cases where the firm is unwinding an in-place *ESO* program, as was recently done by Microsoft (Sapsford 2003). In turn, lack of transferability is another feature of *ESO*s that differs from exchange traded options. If an option is not transferable, this brings into question the validity of using option pricing models, such as Black-Scholes, to determine the fair value of the option expense. If the option cannot be sold, then the value in the option can only be obtained through exercise. If exercise is done prior to the expiration date, then the time value remaining in the option is foregone. FAS 123 specifically requires the *ESO* to be valued on the grant date and, except in special conditions, this value is not to be adjusted for future changes, e.g., §19. In effect, the loss of time value due to early exercise would not be reflected in the financial statements resulting in an overstatement of the fair value *ESO* grant date compensation cost.

The method of exercise is yet another feature that differentiates *ESO*s. Presumably, an *ESO* is similar to a warrant: when an *ESO* is exercised the company will issue a new share in exchange for a cash payment of the exercise price. However, most companies use "cashless exercise programs" which involve no cash payment by the employee (Hall and Murphy 2003, p.50). Rather, the intrinsic value is paid in cash to the employee, with no change in outstanding stock, or the intrinsic value is paid in stock, which results in a smaller number of shares issued than would be the case if the exercise price was paid in full. Further, some *ESO* plans do not issue new shares but, instead, purchase the stock in the open market which involves no issuing of new shares. Given the lack of agreement over the appropriate procedure to use in adjusting option pricing models for the dilution associated with warrants, e.g., Poitras (2002), the appropriate pricing procedure to use for determining the fair value of a given *ESO* with a particular method of exercise, e.g., cashless exercise paid in stock, is difficult to determine. The upshot of all these differences is that the problem of determining a fair value for an *ESO* plan is difficult, at best, and may be intractable. This is the situation before the potentially more complex features of *ExSO*s are brought into consideration.[9]

The list of complications that can arise with *ExSO*s are not typically present with the *ESO* plans available to all employees. The extent of differences will vary from firm to firm, depending on the specifics of the approach taken by the firm to *ExSO* grants. Even in cases where *ExSO* plan features are identical to the *ESO* plan, the Securities Exchange Act (1934, §16c) prohibits insiders -- beneficial owners, directors, or officers – from hedging their *ExSO* portfolios through short positions in their company's stock. In contrast, lower level employees do not face this restriction. In addition, companies are allowed to hedge their short option positions through repurchases of stock. Carr and Linetsky (2000, p.212) describe this situation as being an asymmetry that "drives a wedge between the value to the recipient and the value to the issuer".

This can have significant consequences for the optimal exercise policy of the *ExSO* holder. This implies that the theoretical *ex ante* cost of the *ExSO* to the granting firm will be greater than the *ex ante* value to the *ExSO* recipient.

While *ExSO*s possess many elements in common with other types of *ESO*s, the pay-performance element is an important motivation for the presence of different types of plans. As Hall and Murphy (2003, p. 58) observe: "Although options are clearly an inefficient way of attracting, retaining and motivating lower-level employees, the case for options for top executives is more compelling". In order to better align executive compensation with firm performance, a wide variety of *ExSO* designs are available. Given the relatively simple features of almost all *ESO*s aimed at lower level employees, complex designs occur almost exclusively with *ExSO*s. In order to compare these designs, Johnson and Tian (1999) define a 'traditional' *ExSO* to be a plain vanilla European call option issued at-the-money with an expiration date 10 years from the grant date. From this abstract starting point, increasing the complexity of design in order to attain a better pay-performance incentive structure will typically increase the number of parameters needed to determine a fair value for the *ExSO*. Johnson and Tian examine the valuation and incentive effects of six types of "nontraditional" *ExSO*s: ***performance-vested*** *ExSO*s that are exercisable only after the stock price attains a pre-specified level; ***repriceable*** *ExSO*s that permit the exercise price to be changed after the grant date; ***purchased*** *ExSO*s that require prepayment of a fraction of the exercise price; ***reload*** *ExSO*s (see below); ***indexed*** *ExSO*s that have a variable exercise price tied to a benchmark index; and, ***premium*** *ExSO*s where the exercise price exceeds the grant date stock price, i.e., the *ExSO* is "out of the money" when issued.[10] Within each of these general categories of non-traditional *ExSO*s a number of variations are possible.

This potential for variation in *ExSO* design to increase pay-performance sensitivity raises a number of questions. One question concerns the comparative fair value of these different designs. Using "realistic parameters" Johnson and Tian (2000) provide estimates comparing the fair value of non-traditional and traditional *ExSO*s. Setting the exercise price (*X*) of the traditional option equal to 100, Johnson and Tian estimate that one traditional *ExSO* equals: 1.5172 premium *ExSO* (*X = 150)*; 1.0140 performance-vested *ExSO* (target at 150); 0.9792 repriceable *ExSO* (with *X* changed to 50 if the stock price falls to 50); 1.1947 purchased *ExSO* (with 10% prepaid); 0.9029 reload *ExSO* (with the reload date at 5 years); and 2.9748 indexed *ExSO* (with a index return correlation of .75). Though interesting, by failing to incorporate vesting, the Bermuda feature and the ability to exercise prior to maturity, this fair value comparison is only indicative. Even ignoring vesting, significantly different values could be obtained by altering the parameters, especially for premium and purchased *ExSO*s. It is also possible to render the valuation intractable by combining certain features, e.g., a multiple reload option with a repricing feature. Johnson and Tian also investigate the pay-performance aspect of non-traditional *ExSO*s and find that such non-traditional designs can create stronger incentives to increase stock price and to increase return volatility.

Though lacking a detailed taxonomy, current and proposed accounting standards do recognize a wide range of possible *ESO* designs, providing considerable guidance on accounting required for the different option types. In addition to reload, indexed and repriceable *ExSO*s with an exercise price that periodically varies by a fixed amount or percentage, the standards also identify: ***fixed*** *ESO*s that require the value of both fixed and performance-based awards to be estimated at the grant date; and, ***performance-based*** *ESO*s where either the number of options to be earned or *X* varies depending on a target level of performance being achieved. A performance-based *ESO* differs from a performance-vested *ESO* in having

an unknown number of shares that are available for exercise at a later date. For performance-based *ESO*s, FAS 123, §26 calls for recognition of compensation cost based on the number of *ESO*s that actually vest. No compensation cost is to be recognized for forfeited awards unless employees have fulfilled their service requirement and the forfeiture was entirely caused by the entity's failure to achieve a target stock price. Though not presently significant from either a practical or theoretical perspective, the accounting for performance-based *ESO*s permits the accounting charge for an *ESO* to be delayed until a date beyond the grant date. More generally, under FAS 123, *ESO*s where the number of shares to exercise is uncertain on the grant date permit the deferral of option expensing until a later date..

In addition to *ESO* designs that can defer expensing to a later date, FAS 123 also recognizes that some designs may well be too complex to accurately determine a fair value. More precisely, reload options allow holders to exercise prior to the expiration date by tendering shares that have been held for a period of time, valued at the market price on the exercise date, in exchange for a (greater) number of the same company's shares, valued at the (lower) pre-specified exercise price. The reload feature permits holders to receive an *ESO* covering the remaining life of the old *ESO* for each share given up. The significant complexity added by the reload feature to the valuation of *ESO*s led FAS 123 (§183, 186) to acknowledge that "ideally, the value of an option with a reload feature should be estimated at the grant date, taking into account all of its features", but "no reasonable method currently exists to estimate the value added by a reload feature". To address this difficulty, FAS 123 recommends separate accounting treatment for both the initial grant and the subsequent grant of reload options. In this case, a portion of the option expense is deferred until a later date.

V. *ExSO* Disclosure in Practice

The debate over mandatory expensing of all *ESO*s is distinct from the issue of adequate information disclosure about *ExSO* plans. By proposing mandatory expensing of *ExSO*s and preventing expensing of *ESO*s, the stock option accounting reform bills presented to the 108th Congress recognize this distinction. What is not adequately recognized is that the different possible features that can be included in *ExSO*s pose substantive, if not intractable, problems for determining fair value estimates. If mandatory expensing of *ESO*s is adopted, this could be a form of deterrent to the implementation of complex *ExSO* plans with potentially better pay-performance design. In addition, given the generally small size of outstanding *ExSO*s relative to all *ESO*s, it is not clear that mandatory expensing of *ExSO*s alone would have much impact on the financial statements for most firms. The design of *ExSO* plans speaks more to issues of corporate governance. By construction, full disclosure of fair value would involve relevant features of *ExSO* design being identified. Yet, fair value estimation involves more than disclosure for due diligence investigations of corporate governance issues associated with *ExSO*s. Whether an *ExSO* can be, say, repriced and reloaded or has special vesting provisions or has an atypical procedure for setting the exercise date stock price needs to be disclosed in an appropriate manner. This need for disclosure can be achieved without requiring a fair value estimate to be provided.

The debate over mandatory expensing of *ESO*s is concerned with where in the accounting statement that disclosure takes place. FAS 123 (§45-7) permits disclosure for firms adhering to APB 25 in the notes to the financial statements: "an entity that continues to apply Opinion 25 shall disclose for each year for which an income statement is provided the pro forma net income ... as if the fair value based accounting method ... had been used to account for stock-based compensation cost". Under current mandatory expensing

proposals, *ESO* disclosure is tied to the income statement. Detailed reporting of the *ExSO* component is not required. In practice, more detailed information about *ExSO*s is to be found in the proxy statement. Though both current SEC filing requirements (17 CFR Parts 228, 229, 240 and 249) and FAS 123 suggest that the financial statements and the 10-K are the appropriate source to examine for *ExSO* disclosure, the mass of detail that has to be included in the 10-K argues against a detailed discussion of *ExSO* plans in that document. Rather, attention focuses on determining a fair value for all *ESO*s and providing general information about all plans. Being already concerned with detailed discussion of corporate governance issues, including executive compensation, the proxy statement is a more appropriate vehicle to use for *ExSO* disclosure.

The current state of *ExSO* disclosure can be illustrated by examining the reporting requirements of some selected firms. Being one of the most outspoken firms opposing mandatory expensing of *ESO*s, Cisco Systems is a useful starting point. Cisco uses the intrinsic value method of APB 25, with FAS 123 requirements being satisfied in the 10-K, notes to the financial statements. The *ExSO* information that is provided in the 10-K is relatively sparse: the number of options granted to named executive officers in 2003 and 2002, both in absolute terms (6 million and 10 million), as a percentage of total grants in those years (4.2% and 5.0%) and as a cumulative percentage of total options outstanding (4.6% for both years).[11] There is also a cursory table indicating that named executive officers exercised options for 1 million shares during 2003, with 41 million exercisable (vested) and 19 million unexercisable (non-vested) outstanding. In this table, there is also an item titled: “intrinsic value of unexercised in-the-money options at July 26, 2003" which has two elements: “exercisable” ($280 million) and “unexercisable” $39 million. Information about the *ESO* program is more detailed, e.g., the weighted average exercise price for options granted over

2000-2003 is provided. The FAS 123 fair value reporting reveals the importance of the *ESO* program to Cisco. With 1.3 billion options outstanding against 7 billion shares issued as of July 2003, Cisco reports substantial pro forma adjustments to net income for 2001-2003 (in millions $):

	2001	2002	2003
Net Income (Loss) As Reported	(1,014)	1,893	3,578
Option Compensation Expense (net of tax)	(1,691)	(1,520)	(1,259)
Net Income (loss) – pro forma	(2,705)	373	2,319

The usefulness of (FAS 123 mandated) pro forma information about the Cisco *ESO* program provided in the notes to the financial statements is apparent. The size of the adjustment to net income is substantial and requires reporting. In contrast, though sizable to the individuals involved, the financial impact on net income of the *ExSO* component of the *ESO* program appears to be marginal.[12] As such, it is appropriate that Cisco relegate precise details of the *ExSO* program to the proxy statement. Examination of the proxy statement reveals a wealth of information about overall executive compensation, in general, and *ExSO* grants in particular. The discussion of executive compensation commences with a statement of "Compensation Philosophy and Objectives" and proceeds to describe the components of executive compensation (base salary, variable incentive awards and long term equity-based incentive awards) and the process by which these components are determined. It is clearly stated that *ExSO*s at Cisco are granted under the same program as for *ESO*s which have relatively straightforward vesting, employment and exercise price conditions. Consistent with SEC rules governing the proxy statement, a number of tables are provided that establish: the amount of compensation paid under each component (salary, bonus, stock options, etc.) for the named executives; details of options granted in the fiscal year, with an estimate

of potential realizable value under 5% and 10% stock price appreciation assumptions; and details of the aggregate option positions held by the named executives.

The SEC mandated procedure for reporting of *ExSO* information in the proxy statement reveals the confusion over accounting for the fair value of option grants. While FAS 123 requires fair value of *ESO*s to be estimated using Black-Scholes or an alternative option pricing methodology, *ExSO* value estimates in the proxy statement use a different methodology. More precisely, a "potential realizable value at assumed annual rates of stock appreciation for the option term" is reported to measure the value of *ExSO* grants in the fiscal year. This involves taking the stock price on the grant date and using 5% and 10% annually compounded appreciation assumptions to calculate the stock price on the expiration date. An estimated value is then calculated by assuming all the options in the *ExSO* grant are exercised on that date. An alternative valuation method is used in calculating the value of the aggregate option position at fiscal year-end, i.e., intrinsic value is calculated using the stock price observed at fiscal year-end with the results being dis-aggregated into options that are vested and unvested on that date. The incongruence between the various valuation procedures begs a number of questions. For example, what is the rationale for not applying the same valuation methodology to aggregated positions that is used for annual grants? Similarly, why are volatility assumptions required under FAS 123 while arbitrary stock price appreciation assumptions used for annual grants?

Like Cisco, *ESO*s have played an important role in Microsoft compensation practices. The outstanding balance of shares in the Microsoft *ESO* plan is over 1.5 billion compared to about 10 billion total shares outstanding. The fair value of the *ESO* program is revealed in the pro forma adjustments to net income reported in the 2003 10-K, notes to the financial statements (in millions $):

	2001	2002	2003
Net Income (Loss) As Reported	7,346	7,829	9,993
Option Compensation Expense (net of tax)	(2,262)	(2,474)	(2,462)
Net Income (loss) – pro forma	5,084	5,355	7,531

While Cisco provides this information directly, Microsoft provides a more detailed breakdown that allocates the adjustment to the various expense items: R&D, sales and marketing, general and administrative and cost of revenue. There is a further adjustment to account for the tax implications. In the 10-K, Microsoft does not provides even the cursory *ExSO* information provided by Cisco, leaving the proxy statement to be the sole source of this information. The 2003 10-K does provide an addendum concerning changes to the Microsoft stock-based compensation plans but there is no discussion of the context for these changes. Again, the proxy statement has to be examined to gain this information.

Examining the proxy statement reveals that *ExSO*s are an important source of income for three of Microsoft's five named executives with the two most senior executives – Steven Ballmer, the CEO, and William Gates, the Chairman – receiving only salary and bonus. The remaining three executives all received substantial stock based compensation – with the 2003 *ExSO* grants for the third and fourth named executives being valued at almost $50 million (valued using the 10% price appreciation assumption).[13] This compares to a salary plus bonus component of less than $1 million. The aggregate *ExSO* positions for these two executives are over 9 million and 11 million shares, respectively. As with Cisco, the proxy statement reveals that the Microsoft *ExSO* and *ESO* plans have the same general design features. Unlike Cisco, the 2003 proxy statement details significant changes to the Microsoft stock-based compensation plans:

> In July 2003, the Company announced changes in its equity compensation program. Effective September 2003, the Company began granting stock awards instead of stock options to

> employees. A stock award, or restricted stock unit award, is a grant that vests over time. As the stock award vests employees receive Microsoft common shares that they own outright. In the light of the changed economic environment, and in keeping with Microsoft's progressive compensation philosophy, we believe ***stock awards are a better way to provide significant equity compensation to employees that is less subject to market volatility.*** (emphasis added)

The implications of this statement are difficult to avoid. From critical use of *ExSO*s and *ESO*s to the sale of put warrants as a component of the 1995-2002 stock repurchase program to the recently announced "option transfer program", Microsoft has been a leader in implementing various derivative-based financial strategies. An explicit statement by Microsoft that *ExSO*s will be replaced by stock awards requires careful examination.

One of the arguments made by opponents of mandatory expensing is that the use of *ESO*s will be curtailed due to the unfavorable accounting implications. For *ESO*s, the replacement of an option grant with a stock grant contingent on vesting and other requirements permits the firm to avoid the accounting implications of mandatory expensing while retaining the bulk of the benefits associated with *ESO*s. Because the stock award is contingent on vesting, the initial expense can be deferred. The eventual award of stock can be booked as an equity investment by the employee, avoiding the need to recognize the compensation expense. While the *ESO* component of the stock awards appears straightforward, the proposed changes to stock based compensation for executives described in the 2003 Microsoft proxy statement includes the following:

> Microsoft is instituting the Shared Performance Stock Award program (SPSA), a long-term incentive program under which a significant portion of stock-based compensation for executives and other senior leaders will depend on the growth in the number and satisfaction of our customers over a multi-year period.
>
> SPSA awards are generally made at the beginning of a three-year plan. Executives are given a target award at the beginning of the three-year performance period. At the end of the performance period, the number of stock awards issued will be determined by adjusting upward or downward

> from the target in a range between 50% and 150% based on the Company's performance against the objectives established for the performance period. Each stock award is equivalent in value to one share of Microsoft common stock. If Company performance results in a payout, shares of stock are issued at the end of the performance period and as the stock awards vest over the following two years.

This represents a departure from the use of the same plan design for both *ExSO*s and other *ESO*s. This is an explicit recognition by Microsoft that stock based compensation has different pay-performance incentives for executives than lower-level employees. *ExSO* grants have superior pay-performance characteristics relative to stock awards due to the non-convex payoff provided by the implicit leveraging. The SPSA introduced by Microsoft is aimed at correcting this discrepancy.

As evidenced by the pro forma net income adjustments, *ESO*s have a material impact on both Microsoft and Cisco. Both firms featured relatively traditional plan designs, with much the same terms for *ESO*s and *ExSO*s. The 10-K for Amgen provides a useful illustration of the alternative situation where the *ESO* programs do not have a substantial impact on pro forma net income (in millions of $):

	2001	2002	2003
Net Income (Loss) As Reported	1,119.7	(1,391.9)	2,259.5
Option Compensation Expense (net of tax)	(189.1)	(189.8)	(198.0)
Net Income (loss) – pro forma	930.6	(1,581.7)	2,061.5

There were 94.7 million options outstanding on Dec. 31, 2003 compared to 1.288 billion (undiluted) shares outstanding. Despite the relatively smaller role of *ESO*s compared to Cisco or Microsoft, Amgen demonstrates the difficulties that can arise in determining a fair value for in place *ExSO* plans. The Amgen *ESO* and *ExSO* plans are complicated in various ways. Due to the takeover of Immunex in 2002, Amgen acquired the in-place plans of Immunex, creating a multiplicity of plans to assess. In addition, the description of the Amgen plans has language such as:

> the Board ... shall have the authority to include as part of any Option agreement a provision entitling the Optionee to a further Option (a "Re-Load Option") in the event the optionee exercises the option ... by surrendering Common Stock

Reload provisions are regularly included in the options grants to non-employee directors. Another complicated option used by Amgen is illustrated in the following statement concerning the compensation for a named executive:

> On May 14, 2001 Mr. Nantula was ... awarded 85,000 shares of restricted Common Stock ... The Company has the right to repurchase the restricted stock at the price paid by Mr. Nantula in the event Mr. Nantula's employment is terminated ... The repurchase option shall lapse with respect to the following number of shares on the following dates: 20,000 shares on May 16, 2004; 20,000 shares on May 16, 2005; and 45,000 shares on May 16, 2006.

Other named executives had similar provisions.

All these elements – multiplicity of plans, complicated features, repurchase options for restricted shares – have to be assessed in determining a fair value for the stock based compensation plans used by Amgen. Recognizing that this imposes a substantial burden on the firm to do the requisite calculations, the complexity of the calculations raises the possibility that the values reported have not been accurately calculated. Amgen provides no disclosure about the pro forma calculations beyond what is required in FAS 123 – the riskfree interest rate, expected option life, expected volatility and expected dividend yield. Consistent with SEC requirements, a separate fair value calculation for the *ExSO* component is not reported in the proxy statement. Yet, Amgen is a model for accurate and detailed reporting in other aspects of the 10-K and the proxy statement. Given that more appropriate guidance is required to determine whether the calculations were done accurately, the implication is that the requisite accounting standards need to provide more precise disclosure requirements about the details of calculations that are done to arrive at fair value estimates for *ExSO*s with complicated features.

VI. Summary

At least since Graham and Dodd (1934), security analysts have stressed the importance of assessing the quality of executive management in determining the value of corporate securities. While quality of management is widely recognized as a key factor to assess in conducting a security analysis, e.g., Poitras (2004), little systematic guidance is available about the process for making such assessments. Qualitative inferences need to be drawn from a range of information available about management structure and practices. The presence and design of an *ExSO* plan is one signal that can be used to assess the quality of corporate governance. A well designed *ExSO* scheme could be a key element in improving managerial performance; or an *ExSO* scheme could be a back-loaded form of executive compensation that ultimately drains value from shareholders. In order to make an accurate assessment for an *ExSO* scheme, precise information about the terms and conditions of such awards is needed. The basis for such disclosure is largely independent of the issues associated with mandatory expensing of *ESO*s. Even though the potentially complex design of an optimal *ExSO* plan could pose real difficulties in arriving at a fair value calculation, some form of mandatory expensing for *ExSO*s is indicated. Though it is possible that mandatory expensing of *ExSO*s will force some firms to avoid using complex contingencies that have superior pay-performance characteristics, if there are real gains to such plans these outcomes will be minimal.

The primary conclusion of this paper is that, by failing to make an adequate distinction between *ESO*s and *ExSO*s, the disclosure requirements of current and proposed accounting standards are inadequate. More precisely, while the debate over mandatory expensing of *ESO*s speaks to information that needs to be disclosed in the financial statements, information about the precise terms of *ExSO*s speaks more to

issues of corporate governance. A well specified disclosure procedure is required to identify relevant features for *ExSO* schemes, especially those with complex designs. Given that the 10-K is the appropriate location for *ESO* information disclosure, the proxy statement is the appropriate location for *ExSO* disclosure. Traditionally, SEC rules have governed preparation of the proxy statement, if only due to the absence of financial statements in that filing. However, if *ESO* expensing is to be mandated under FASB rules, disclosure of precise details about *ExSO* plans is also needed. Providing a directive to include specific financial information in the proxy statement is consistent with the FASB mandate to "improve the usefulness of financial reporting by focusing on the primary characteristics of relevance and reliability and on the qualities of comparability and consistency" (www.fasb.org/facts). To be consistent with the spirit of fair value accounting reflected in FAS 123, adequate disclosure of *ExSO* information also requires a fair value estimate of the executive component of *ESO*s to be provided in the proxy statement, together with a precise description of the scheme being used and the assumptions used to arrive at the fair value estimate.

References

Accounting Principles Board (1972), "Opinion No. 25: Accounting for Stock Issued to Employees", New York: American Institute of Certified Public Accountants.

Bebchuk L. and J. Fried (2003), "Executive Compensation as an Agency Problem", Journal of Economic Perspectives 17: 71-92.

Berle, A. and G. Means (1932), The Modern Corporation and Private Property, New York: Macmillan.

Bertrand, M. and S. Mullainathan (2001), "Are CEO's Rewarded for Luck? The Ones without Principals Are", Quarterly Journal of Economics 15: 901-32.

Black, Fischer and Myron Scholes (1973), "The Pricing of Options and Corporate Liabilities", Journal of Political Economy, 81: 637-654.

Carr, Peter and Vadim Linetsky (2000), "The valuation of Executive Stock Options in an Intensity- Based Framework", European Finance Review, 4: 211-230.

Core, J., W. Guay and S. Kothari (2002), "The Economic Dilution of Employee Stock Options: Diluted EPS for Valuation and Financial Reporting", Accounting Review 77: 627-652.

Core, J., W. Guay and R. Verrechia (2003), "Price vs. Non-Price Measures in Optimal CEO Compensation Contracts", Accounting Review 78: 957-81.

Cyert, R., S. Kang and P. Kumar, " Corporate Governance, Takeovers and Top Management Compensation: Theory and Evidence", Management Science 48: 452-69.

David, P., R. Kochar and E. Levitas (1998), "The Effect of Institutional Investors on the Level and Mix of CEO Compensation", Academy of Management Journal 41: 200-8.

Financial Accounting Standards Board (1978), "FASB Interpretation No. 28, an interpretation of APB Opinions No. 15 and 25: Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans".

Financial Accounting Standards Board (1984), "FASB Interpretation No. 38, an interpretation of APB Opinion No. 25: Determining the Measurement Date for Stock Option, Purchase, and Award Plans Involving Junior Stock".

Financial Accounting Standards Board (1995), "Statement of Financial Accounting Standards No. 123: Accounting for Stock-Based Compensation".

Financial Accounting Standards Board (2000), "FASB Interpretation No. 44, an interpretation of APB Opinion No. 25: Accounting for Certain Transactions involving Stock Compensation".

Financial Accounting Standards Board (2002), "Statement of Financial Accounting Standards No. 148: Accounting for Stock-Based Compensation – Transition and Disclosure, an amendment of FASB Statement No. 123".

Financial Accounting Standards Board (2002a), Invitation to Comment: "Accounting for Stock-Based Compensation: A Comparison of FASB Statement No. 123, 'Accounting for Stock-Based Compensation', and Its Related Interpretations, and IASB Proposed IFRS, 'Share-Based Payment'".

Financial Accounting Standards Board (2004), "Share-based Payment– an Amendment of FASB Statements No. 123 and 95", Exposure Draft, March 31, 2004.

Graham, B. and D. Dodd (1934), Security Analysis, New York: McGraw-Hill.

Hall, Brian J. and Kevin J. Murphy (2000), "Optimal Exercise Prices for Executive Stock Options", American Economic Review 90: 209-214.

Hall, B. and K. Murphy (2003), "The Trouble with Stock Options", Journal of Economic Perspectives 17: 49-70.

Hanlon, Michelle and Terry Shevlin (2001), "Accounting for Tax Benefits of Employee Stock Options and Implications for Research", Accounting Horizons 16: 1-16.

Hemmer, Thomas, Steve Matsunaga and Terry Shevlin (1994), "Estimating the 'Fair Value' of Employee Stock Options with Expected Early Exercise", Accounting Horizons 8: 23-42.

Hemmer, Thomas, Steve Matsunaga and Terry Shevlin (1998), "Optimal Exercise and the Cost of Granting Employee Stock Options with a Reload Provision", Journal of Accounting Research 36: 231-255.

Jensen, M. and W. Meckling (1976), "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure", Journal of Financial Economics 5: 305-60.

Johnson, Shane A. and Yisong S. Tian (2000), "The value and incentive effects of nontraditional executive stock option plans", Journal of Accounting and Economics 57: 3-34.

Klassen, Kenneth J. (2002), "Options for compensation", CA Magazine August: 41-44

Malkiel, B. and W. Baumol (2002), "Stock Options Keep the Economy Afloat," Wall Street Journal, April 4.

Marquardt, C. (2002), "The Cost of Employee Stock Option Grants: An Empirical Analysis", Journal of Accounting Research 40: 1191-1217.

Murphy, Kevin J. (1999), "Executive Compensation", in Orley Ashenfelter and David Card (eds.), Handbook of Labor Economics, Vol. 3, North Holland.

Murphy, Kevin J. (2002), "Explaining Executive Compensation Managerial Power versus the Perceived Cost of Stock Options", University of Chicago Law Review 69: 847-869.

Murphy, Kevin J. (2003), "Stock-Based Pay in New Economy Firms", Journal of Accounting and Economics 34: 129-47.

Poitras, G. (2004), Security Analysis and Investment Strategy, New York: Blackwell.

Poitras, G. (2002), "Short Sales Restrictions and Rights Issues on the Stock Exchange of Singapore", Pacific Basic Finance Journal 10: 141-62.

Prendergast, C. (2002), "The Tenuous Tradeoff between Risk and Incentives", Journal of Political Economy 110: 1071-1102.

Reilly, D. (2004), "The Economy: Foreign Firms to Expense Stock Options; New International Rule Pressures U.S. to Handle Stock Grants the Same Way", Wall Street Journal, Feb 19 (Eastern edition), p.A-2.

Rubinstein, Mark (1995), "On the Accounting Valuation of Employee Stock Options", Journal of Derivatives 3: 8-24.

Sapsford, J. (2003), "Options Report: Workers Tender Stock Options at Microsoft", Wall Street Journal (Eastern edition), Dec. 12: C-12.

NOTES

1. Since APB 25, the number of changes, revisions and updates to the accounting standards for stock-based compensation include FAS 28 (FASB 1978), FAS 38 (FASB 1984), FAS 123 (FASB 1995), FAS 44 (FASB 2000) and FAS 148 (FASB 2002). Currently, there is an ongoing consultation round on

the reconcilation of the FAS 123 standard with the IASB approach to stock-based compensation (FASB 2002a).

2. In Canada, the fraction of the largest 100 public companies that offered stock options to employees increased from one-third of in 1991 to two-thirds in 1995. By 2000, a review of proxy statements filed with the Toronto Stock Exchange reveals that all companies in the top 100 are using *ESO*s (Klassen 2002).

3. Analyzing a random sample of 10 of the 100 largest Canadian companies, Klassen (2002) finds that the top five executives' stock option grants accounted for 44% of all stock options awarded in 2000, leaving 56% of all stock options granted to regular employees.

4. Richard Grasso at the New York Stock Exchange is a recent example of an "outrage" casualty in the executive ranks.

5. In addition, economic benefits from *ExSO*s are created by the higher compensation flexibility which allows for real wage reduction. Yet another explanation involves the recruiting and retention incentives for growth firms, particularly technology start-up companies, that have high cash needs and, consequently, low cash reserves. A survey by the Bureau of Labor Statistics finds that, in 1999, stock option grants offered to employees after the initial hiring phase of employment (after-hire grants) made up the majority of stock option grants.

6. APB No. 25 specifies different dates for the quoted market price used in measuring compensation cost, depending on whether the terms of an award are fixed or variable.

7. Additional legislation in the Senate (S. 1940) was sponsored by Senators John McCain and Carl Levin. This legislation would require companies to expense stock options or forfeit their tax deduction. Senator Levin was also sponsor of a bill introduced in 1994 to curb the use of stock options. This bill was defeated 88-9.

8. This quote was made at an American Enterprise Institute conference on mandatory option expensing held in Jan. 2004. Details of this conference can be obtained from the IESOC website www.savestockoptions.org.

9. Another aspect of *ESO*s that is difficult to value concerns the treatment of the option in the event of changes in corporate control. In some situations, *ESO* provisions can be a form of poison pill that deters hostile takeovers.

10. IBM, which has been a substantial user of *ESO* and *ExSO* compensation, recently announced a switch from at-the-money options to premium options for the top 300 executives. An additional wrinkle is a plan to continue offering at-the-money *ExSO*s to executives if the exercise price is paid using a portion of bonus compensation for that year. Hall and Murphy (2000) argue that premium options are sub-optimal because this design does not provide the pay-performance incentives achievable with at-the-money options.

11. Named executive officers include the CEO and the four other most highly compensated executives.

12. For example, the CEO, John Chambers had *ExSO*s for over 38 million shares with a vested intrinsic value of over $196 million and a further unvested amount of $17.5. These dollar values would be considerably higher if the fair value were reported.

13. A note in the proxy statement – "Agreements with Certain Executive Officers" – details an agreement with an executive that was hired in November 2000. The hiring process involved a $12 million loan on hiring that was settled by the delivery of *ExSO*s for 1.3 million shares in April 2003. (Such a loan would no longer be permitted under Sarbannes-Oxley.) The size of these transactions suggest that, for companies the size of Microsoft, increasing the number of named executives from five to, say, ten would be useful.