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Washington, D.C. 20549

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of  
the Securities Exchange Act of 1934 (Amendment No. )

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**INTEL CORPORATION**

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(Name of Registrant as Specified In Its Charter)

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May 7, 2003

Dear Stockholder,

I ask for your support in voting to defeat Proposal 2 in this year's Intel proxy statement. The United Brotherhood of Carpenters and Joiners of America Pension Fund and others have broadly submitted this proposal to many companies. The proposal requests that Intel's Board of Directors adopt an accounting treatment known as "expensing" for employee stock options. We believe this is a deeply flawed method of accounting that will diminish the accuracy and clarity of our financial reporting and could cause real economic harm to Intel, our stockholders, and our economy.

This is a serious issue that should not be made trivial. Intel's record should be judged on its own merit and not be buried in a blanket referendum on corporate America. I believe that your management has done well for stockholders when measured by our productivity, the quality of our work force, and the strength of our corporate governance. Let's not punish Intel and its stockholders for the sins of other companies.

The full proposal and our response are in the Proxy Statement, and there is additional disclosure in the Annual Report and 10-K. These can be accessed online at [www.intel.com/intel/finance/proxy03](http://www.intel.com/intel/finance/proxy03) and [www.intel.com/intel/annua102](http://www.intel.com/intel/annua102). Our Investor Relations department is available to answer questions at 408-765-4994.

Your vote is important. I urge you to read Proposal 2 in the proxy statement, and our Board's statement opposing the proposal, and then to vote "AGAINST" the proposal.

Sincerely yours,

Andrew S. Grove  
Chairman of the Board

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**Enclosures**

Barrett, Craig, "Kind of Right' Isn't Good Enough," *The Wall Street Journal*, April 24, 2003.

Bartley, Robert L., "The Options-Accounting Sideshow," *The Wall Street Journal*, July 29, 2002.

Baumol, W.G. and B.J. Malkiel, "Toward a Rational Treatment of Stock Options: The Baby And The Bathwater," Comments on International Accounting Standards Board Exposure Draft 2 (ED-2), Proposal re: Stock Options, March 5, 2003.

Grove, Andrew S., "The Conference Board Commission on Public Trust and Private Enterprise, Part 1: Executive Compensation, Dissenting Opinion," September 17, 2002.

Intel Corporation, Comment Letter to IASB on the Exposure Draft ED2—Share-based Payment, January 31, 2003.

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Malkiel, Burton G. and William J. Baumol, "Stock Options Keep The Economy Afloat," *The Wall Street Journal*, April 4, 2002.

Sahlman, William A., "Expensing Options Solves Nothing," *Harvard Business Review*, December 2002.

Schuetze, Walter, Letter from Former SEC Chief Accountant Walter Schuetze to Senator Charles Schumer, March 25, 2002.

Simmons, Wick, "The Best Option," *The Wall Street Journal*, January 31, 2003.

**Recommended Reading**

*Accounting Today*, "CEI (Competitive Enterprise Institute) study: Leave Stock Options Alone," July 22, 2002 v16 i13 p16 (1).

Baumol, W.G. and B.J. Malkiel, "A False Cure for The Ills of Stock Options," *Financial Times*, April 3, 2003.

Blasi, Joseph, Douglas Kruse, and Aaron Bernstein, "In the Company of Owners: The Truth About Stock Options (And Why Every Company Should Have Them)," Basic Books, January 7, 2003.

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International Employee Stock Options Coalition (IESOC), "Associations Speak Out Against Expensing," February 27, 2003.

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April 23, 2003

## COMMENTARY

### 'Kind of Right' Isn't Good Enough

By CRAIG BARRETT

Over the past 18 months we've seen many companies restate earnings, enter bankruptcy or worse—among them corporate behemoths like Enron and WorldCom. In response to the crisis of public confidence, Congress and the SEC have attacked the issue with the Sarbanes-Oxley Act and SEC certification procedures. I agree that it's our job as CEOs to enforce proper controls within our corporations, and I support these reforms despite the substantial time commitment required for new compliance activities. Unfortunately, Sarbanes-Oxley is running head-on into the laws of unintended consequences.

\* \* \*

Recently, the Financial Accounting Standards Board voted unanimously to proceed with plans for determining how to expense employee stock options. Treating options as an expense will present a significant conflict for companies like Intel that offer broad-based employee stock-option plans, and we are opposing the effort. Employee stock options do not create a cash cost like salaries or rent, and they do not have a market price since they cannot be sold. To record an "expense," companies would have to create an estimate for the value of the options.

The usual method for expensing employee stock options is to derive an estimate using the Black-Scholes model. But this model was not designed for valuing employee options, instruments that are not tradable. Despite results that are inherently inaccurate and unreliable for this purpose, Black-Scholes is the only model available.

To see how unworkable the model is, consider Intel's experience from 1995 through 2002. The information in question is published in the footnotes of our annual report and is widely available. If we had been required to expense options using Black-Scholes during this period, we would have expensed over \$3 billion just for the portion of those options where the price is currently underwater (where the exercise price is higher than the current market price). These options may never be exercised unless the stock price increases in the future—yet we would have to carry their "value" as an expense.

In addition, regardless of price, we also would have had to record an expense for vested options that will never be exercised because they were granted to employees who have since left the company. Black-Scholes does not give an accurate representation of the financial picture at Intel. In fact, a \$3 billion error is so large that it makes a mockery of all the controls, certifications and accounting demands that Sarbanes-Oxley invokes.

Recent comments from Paul Volcker, current chair of the group with oversight responsibility for the International Accounting Standards Board, Robert Herz, chairman of FASB and others, concede the fallibility of Black-Scholes. The Economist magazine recently cited Mr. Volcker as saying, "It would be better to expense inaccurately than not at all." That's not exactly a ringing endorsement.

If the standard-setters who support stock option expensing were required to certify their work, I wonder whether their tolerance for inaccuracy would be the same? I know of no situation where it would be acceptable for a CEO to certify that a company's results were "kind of right"—the term used by FASB's Mr. Herz to describe the results produced by the Black-Scholes model.

Suppose FASB requires companies to expense options. Per Sarbanes-Oxley, as CEO I have to certify that Intel's quarterly and annual financial statements "fairly present in all material respects the financial condition, results of operations, and cash flows." Failure to sign these certifications could result in SEC sanctions and criminal penalties. Since I don't believe Black-Scholes provides an accurate

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picture of the financial condition of our company, how can I certify our financial results using it to guesstimate the cost of options?

What value is it to the investing public to have to rely on numbers that include this guesstimate? Is it any wonder that the financial analysts tell us that if we start expensing options they will simply factor out the expense using a pro forma profit and loss statement to get at the real financial condition of the company?

If stock-option expensing becomes reality, it leaves CEOs with two options: Comply with Sarbanes-Oxley and certify as accurate numbers that are inherently flawed. Or, support the spirit of the new law and refuse to sign off on the numbers because we don't believe they present an accurate financial picture.

I support corporate reform, but with all due respect to Mr. Volcker, Mr. Herz, Warren Buffett and others, results that are "kind of right" aren't good enough.

Mr. Barrett is the CEO of Intel.

URL for this article:

<http://online.wsj.com/article/0,,SB105105701462387200,00.html>

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## THINKING THINGS OVER

By ROBERT L. BARTLEY

### The Options-Accounting Sideshow

The lodestar of whether corporate America has reformed itself, various sages tell us, is whether stock-option grants are charged against reported earnings. OK, I guess, but some of us remember FIFO and LIFO.

For anyone who missed the inflationary 1970s, those are inventory accounting conventions, first-in-first-out and last-in-first-out. With inflation the price of whatever's in your inventory is going up. So FIFO will let you record a profit on inventories and report higher earnings. But this increases your tax liabilities, and thus reduces cash flow. Now, Mr. CFO, which will boost your share price, a good-looking earnings report under FIFO or more cash in the till under LIFO?

This is a no-brainer, and many businesses switched to LIFO. And I, at least, carried away some lessons: Accounting often needs to be arbitrary, and earnings per share is a false god. Just recently, I heard another old-timer reminisce about his accounting professor's admonition, "Profit is an opinion, cash is a fact." So I'm skeptical, to say the least, about any notion of reforming business by changing accounting conventions.

Beyond any question, as Alan Greenspan, Warren Buffett and others observe, a stock option is *something* of value. The right to buy a stock a year or 10 years from now at today's price is obviously worth something, and a corporation gives options to an employee in lieu of cash compensation. It currently doesn't have to record the options as an expense, though cash compensation is of course counted and deducted as earnings are calculated. This is a prima facie incentive to issue too many options, a market imperfection arguably contributing to the recent boom-and-bust. So, the case runs, deduct options from revenues to get earnings.

This is no trivial case, but it does not follow that anyone with doubts is in the grip of a malign "business lobby." The problems start with the question, how much do you deduct? What is that option grant worth *today*, before the right can even be exercised? Maybe a lot if the stock will rise, but maybe zero if it turns out to fall. The only reliable way to find true present value would be to create a market by letting the employees sell the options. This would defeat the whole purpose of options, which is to make sure executives focus on the share price that rewards owners rather than, say, corporate aircraft and expensive entertaining.

In assigning an option value, the green eyeshade crowd will fall back on the Black-Scholes Option Pricing equation, depicted nearby. This is not a joke; a lot of option-market traders have used BS to make a lot of money. As a technical matter, though, it requires a number of assumptions. Assumption number one is a liquid market, which at least to me means the options can be sold. Also at issue is whether it applies when option-holders can influence the results, which is precisely why options are given to top executives.

And what if you've recorded a big options expense when the stock is high, and then it falls below the exercise price? Do you get a credit to take back the expense you've already booked but won't realize? If so, options charges would reduce earnings in good years and boost them in poor years. Phasing in the options charges, as Coca-Cola is doing, would have some of the same effect. I suspect that such a damper on volatility would degrade rather than improve earnings as an accurate reflection of a company's performance and prospects.

To put it another way: The essential purpose of earnings reports is to help the market price stocks accurately, so incorporating the share price into earnings is circular and confusing. Earnings per share is a calculation with a numerator and a denominator. Options will already show up in the denominator

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as they're converted into shares; they're already included in "fully diluted" EPS. By what logic should they be factored into the numerator as well?

Now, stock options may indeed have been abused in the recent boom, but there are other ways to curb them. The cleanest thing is, as Felix Rohatyn proposes, to give grants not of options but of stock, which has a downside potential. Or when top executives exercise options make them, as Henry Paulson suggested, hold the stock for the long term. The real abuses arise not from the timing of the exercise of an option but from the timing of the often-related sale.

As a fully disclosed experiment, it's fine for Coca-Cola and the Washington Post to adopt options expensing. Under Mr. Buffett's guidance, the necessary guesswork will be done in a reasonable way, and we can watch to see whether it helps them to attract capital. As a rule imposed on all businesses, however, it seems to me a truly dangerous idea.

Because some CEOs and CFOs have abused options and earnings reports, we're now going to put the Black-Scholes equation in all earnings reports? Take another look, and imagine what a corner-cutting CFO could do with that! Earnings reports should be accurate, but they should also be transparent, that is, easily understood. Certainly options should be prominently included somewhere in financial statements, but using some guess at their present value to calculate earnings is the opposite of transparency.

Would that all the energy now going into this accounting crusade were directed at another message. To wit, there is not and never will be a perfect number to sum up a company's results. Earnings per share is a good starting point, but you have to go deeper for real understanding. Getting this message home to Wall Street and beyond would do more than a peck of laws and bushel of accounting changes to prevent future WorldComs and Enrons.

## ABOUT THE AUTHOR

Robert L. Bartley is editor and vice president of The Wall Street Journal, where he has guided editorial opinion for over 25 years. He is responsible for the editorials, op-ed articles and Leisure & Arts criticism. He also directs the editorial pages of The Asian Wall Street Journal, The Wall Street Journal Europe and the Online Journal.

Mr. Bartley joined the Journal in 1962 and served as a staff reporter in the Chicago and Philadelphia bureaus before joining the editorial-page staff in New York in 1964. He was appointed editor of the editorial page in 1972, editor of the Journal in 1979 and a vice president in 1983. He won a Pulitzer Prize for editorial writing in 1980.

Mr. Bartley holds a bachelor's degree in journalism from Iowa State University and a master's degree in political science from the University of Wisconsin. He has received honorary degrees from Macalester College, Babson College and Adelphi University.

Mr. Bartley invites comments to [edit.page@wsj.com](mailto:edit.page@wsj.com). Please put BARTLEY in the "Subject" field.

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March 5, 2003

Ms. Kimberley Crook  
Project Manager  
International Accounting Standards Board

**Re: ED 2 Share-Based Payments**

Dear Ms. Crook:

Enclosed please find our comments on exposure draft ED 2 Share-Based Payments.

Sincerely,

/s/ WILLIAM J. BAUMOL

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William J. Baumol  
Professor of Economics  
New York University,  
Professor Emeritus  
Princeton University

/s/ BURTON G. MALKIEL

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Enclosures

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**TOWARD RATIONAL TREATMENT OF STOCK OPTIONS: THE BABY  
AND THE BATHWATER**

**Comments on International Accounting Standards Board  
Exposure Draft 2 (ED-2), Proposal re Stock Options**

W.J. Baumol and B.G. Malkiel(1)

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- (1) We are grateful for research funding by Software Finance and Tax Executives Council ("SoFTEC"), a non-profit trade association focusing on finance, tax, and accounting issues relevant to the software industry. The views expressed in these comments, however, are the views of the authors and do not necessarily reflect the positions of SoFTEC or its members.

Recent events have illustrated all too dramatically the possibilities for abuse—and indeed the actual abuse—of stock options by some entrenched management. These opportunities for abuse include manifestly undesirable incentives for artificial inflation of short-term earnings to increase the value of the options upon exercise, with immediate sale of stock by the executives ("pumping and dumping"). They also include the frequency with which directors serving on compensation committees authorize large—in the view of critics) excessively large—option grants to top executives, particularly when the directors approving such compensation (and the consultants advising such directors) have been handpicked by the executives receiving the option grants. Moreover, some critics have also decried the large rewards current option programs can provide to executives who have accomplished little or nothing for their firms, but benefit greatly when the stock price of their particular company rises, carried along by advances in the entire stock market.

Many of these criticisms are valid and merit serious consideration. Certainly, recent examples of illegal or questionable actions by a small number of senior executives can readily be recounted. Against this background of potential for abuse and the well-publicized examples of actual abuse, stock options seem to have become a lightning rod for blame surrounding business failures, fraud and the current downturn in the stock markets. At the same time and perhaps as a result of the whipping boy status of stock options, there has been groundswell of public opinion supporting the expensing of stock options in the belief that it will serve as a fix for these problems. We believe, however, that careful and dispassionate evaluation of the proposal shows that the expensing of stock options will neither "fix" nor reduce any of the identified problems. Moreover, we will show that the rush to expensing of all such stock options, rather than ameliorating the terms of the options programs themselves, threatens to undermine one of the most powerful instruments currently available for reconciliation of the incentives and goals of management with those of stockholders, employees and the society in general.

It should be made absolutely clear that the reason for our opposition to universal expensing of stock options is not a desire to preserve the *ancien régime* and to protect any unwarranted benefits that it offered to those who were its special beneficiaries. On the contrary, we will propose a number of substantial amendments to the terms and conditions under which stock options are granted. While these proposals are outside the purview of the IASB and should, rather, be considered by exchanges, governments or other regulatory or market bodies, our proposals are intended to alter and limit the opportunities and incentives for the abuse of stock options rather than adopting changes that merely give the appearance of eliminating abuse while in fact threatening to exacerbate the problems by impeding use of the instrument most capable of keeping them in check.

Our opposition to universal expensing of options rests on two fundamental beliefs. First, the empirical research to date leads us to conclude that the grant of employee stock options imposes no net economic cost upon either the firm or its shareholders. Second, we are also driven to conclude that universal expensing of stock options would fail to meet the objective in the preamble to ED-2: "The primary objective of financial statements is to provide high quality, transparent and *comparable* information to help users make economic decisions."(2) On the contrary, we will show that a wide range of different option valuations will be consistent with generally accepted option-pricing techniques. Moreover, we will argue that firms will be induced to make a variety of alterations in the terms of

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option contracts so as to reduce the charge against earnings that may be required. We believe that the result will be that financial statements will become less comparable rather than more so and that final earnings per share numbers will become less useful to economic decision makers.

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- (2) ED-2, page 7, underlining ours.

We believe that our suggestions, unlike a regime of universal expensing of stock options, will yield widespread benefits. We are convinced that our proposal will benefit stockholders and employees by providing effective instruments for the prevention of the scandals associated with the past misuse of executive stock options. In the long run, the interest of those who have been in a position to derive questionable profits from the old arrangements can be served effectively only by unqualified commitment to new arrangements that will adequately protect the interests of those whose financial welfare is management's responsibility. Thus, all the affected parties stand ultimately to gain and gain substantially from the fundamental changes in the terms and conditions of stock option grants that we propose.

We are not unmindful of the public sentiment in favor of expensing employee stock options. Nor are we unmindful of the fact that the positions we take in these comments are likely to be unpopular in some sectors. In these comments, however, we attempt to bring logic and economic analysis to bear upon the issues raised by ED-2 without regard to public sentiment.

### Summary of Proposals and Conclusions.

This report offers the following conclusions:

1. Stock options constitute one of the most powerful instruments available to help reconcile of the self-interest goals of top management with those of stockholders and employees. Consequently, any change in accounting procedures or pertinent rules that impede the use of all types of stock option arrangements will only exacerbate the problems that can result from managerial incentives that may be inimical to the interests of stockholders and employees. The proposed universal expensing of stock options can be expected to impede the use of stock option arrangements. Thus, rather than curing the problems that underlie the proposal for expensing of stock options, such measures can be expected to exacerbate the problem of inadequate alignment of interests of stockholders and management.
2. In addition to aligning the interests of management and shareholders, employee stock options can also provide significant incentive to management and employees to work "harder and smarter." The powerful incentive effects of stock options can readily be observed in the work ethic of employees of many high tech companies, where options programs are often broadly based, extending to all employees of the firm. The stories of employees working late into the nights and sleeping under desks are legion in the high tech sector.
3. If the grant of options succeeds in its purpose and leads to additional growth in the firm's long-run earnings, the result should be no dilution of the earnings available for the other stockholders; on the contrary, earnings per share will be higher than they would otherwise have been and both managers and shareholders will benefit.
4. Note that in this case the option does not have an opportunity cost for either the firm or its shareholders. The result is fundamentally different from the case where an option is sold to a third party where neither positive agency nor incentive effects exist.
5. There exists no correct method of evaluation of the costs of employee stock options, even approximately. We agree with ED-2 (p. 70) that failure to recognize an expense is not rectified by explanatory material included in the footnotes to the statements. But we also recognize that "a big aspect of the recognition criteria is that the item can be measured with

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reliability."<sup>(3)</sup> We are convinced that it is not possible to make reliable estimates of option expense. This will especially be so if option grants in the future will be of the "performance" type and with additional restrictions on the ability of the executive to sell the optioned shares. Because there are a variety of possible and ostensibly defensible ways to estimate the value of option grants, extensive experience in arenas such as rate regulation of public utilities indicates that an attempt to require such an evaluation will certainly lead to the invention of methods of evasion of effectiveness of the pertinent rules, and can be depended upon to generate disputes and costly litigation. This will only add to the undesirable consequences of an option expensing requirement, whose primary cost to society will be the weakening or destruction of this most promising tool for bringing the incentives of top management into line with those of stockholders, employees and the public generally.

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(3) ED-2, page 70, paragraph 3C272.

6. Imposing impediments to the use of stock options to enhance managerial incentives to work assiduously for the future welfare of the firm is not a rational way to deal with the problems that beset the exercise of managerial responsibility. Any such step will indeed amount to throwing out the baby with the bathwater.
  7. Nevertheless, the problems at issue are real and important. These include the incentives for management to adopt accounting procedures that overstate company earnings, the incentives for managerial focus on very short run performance of their firms and neglect of critical long-run considerations, and overly generous compensation of managements even when there is little reason to conclude that their presence has materially improved the firm's performance.
  8. Although outside the scope of the IASB's charter, these problems are best attacked directly by making advantages of the issue of stock option to management contingent on several provisions only some of which are currently prevalent: (a) that exercise of those stock options should not be permitted for some substantial period, say five years, after they are initially offered; (b) that the stock options be performance based, meaning that they be contingent on performance by the firm that exceeds that of the relevant portions of the stock market or of the firm's own past record, with the amount of gain to the executive proportioned to the magnitude of the superior performance; (c) that any such grant of options to management be subject to approval by the independent members of the firm's Board of Directors and by the firm's shareholders; (d) that executives be required to hold the shares exercised for a substantial period of time;<sup>(4)</sup> and (e) that sale of such shares by top management be made public promptly.
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- (4) It will be desirable, however, to allow the executive to sell a portion of the shares exercised that will raise funds sufficient to cover the cost of buying the shares and paying the income taxes generated by the transaction. It may also be desirable to require that the holding period of the stock extend even further than the employee's tenure with the company, so as not to encourage executives to leave their jobs in order to unlock their holdings.
  9. Stock options granted on these terms will not only constitute a dramatic change in the incentives of management in the desired direction, but it can also be expected to reduce any resulting dilution in the earnings of the firm's other stockholders.

The problem of divergence between the interests of stockholders and management is inherent in the corporate form of organization of the firm that is designed to make it possible to elicit funding from a large number of sources—its many stockholders. This organizational form was adopted in order

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to overcome the impediment to growth stemming from the limited financing generally available to partnerships and individual proprietorships. But the resulting dispersion of corporate ownership makes management by the proprietors unworkable and necessitates the assignment of management to an essentially separate group, the hired management of the enterprise. The result, the separation of ownership from management that is a hallmark of the modern corporation, was recognized at least as early as the eighteenth century as a potential source of trouble.<sup>(5)</sup> But only in the 1930s, with the work of Berle and Means,<sup>(6)</sup> did the issue attract widespread attention. The fact is that the interests and motivations of the firm's management and its stockholders are not always entirely consistent and, sometimes, as has recently been demonstrated all-too-dramatically, the divergence can be extreme.

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(5) Thus, see Adam Smith, *The Wealth of Nations* (1776), New York, Modern Library, Pp. 699-700: "The directors of such companies, however, being the managers rather of other people's money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartnership frequently watch after their own...Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company." Note that this observation comes from an analyst who has often been considered a prime prophet of the capitalist economy.

(6) See A.A. Berle and Gardiner Means, *The Modern Corporation and Private Property* (1932).

The problem does not arise only when a management is of questionable integrity. All decision makers, in any profession, are prone to being swayed to some degree by considerations of self-interest. There is, for example, at least one common characteristic of managerial compensation that makes this observation directly pertinent to the acquisition process. There is considerable evidence that managerial compensation levels, as well as managerial perquisites, are enhanced by expanded sales volume of the firm. That is, while a larger volume of sales with unchanged total profits offer little benefit to the firm's owners, they apparently can provide substantial additional benefits to management. For example, compensation consultants may adopt as a benchmark the magnitude of the firm's nonincentive compensation of the firm's managers to the compensation levels of other firms with similar assets and revenues. As a result, a tradeoff offers itself to a management driven by self-interest, making it tempting to sacrifice a modest amount of profit in return for an expansion of sales. The easiest way to achieve such a trade is through the acquisition of assets that are associated with large sales revenues but comparatively modest profits.

The fact is that persons who occupy positions of influence and responsibility in business management, as is true of any occupation, vary in their objectives and in their degree of dedication to the ostensible purposes of their task. Because of the imperfect consistency between the courses of action that most effectively promote the interests of management as distinct from those of stockholders, it is of critical importance for the long run success of the enterprise and its contribution to the economy to adopt measures that minimize any such divergences in goals. As already noted here, stock options are one of the most promising instruments to achieve the goal of reconciling the interests of managers and shareholders. The rational objective of any program undertaken to modify the way in which stock options are used and accounted for in the firm's financial records should be improvement in the effectiveness with which they coordinate the goals of stockholders and management. The objective of such a change in regime should *not* be the creation of disincentives for the employment of stock options, a step that can only exacerbate the problem of lack of identity of managerial and stockholder objectives. Thus, expensing of option grants could have the unintended consequence of making the interests of managers and shareholders more divergent.

The work of even the most dedicated and trustworthy of business executives is surely impeded by the blatant and much publicized misbehavior of a small number of business executives that has led to doubts about the trustworthiness of all top management. Consequently, an incentive arrangement that patently serves to ensure that the interests of stockholders and management are parallel will be

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beneficial not only to the owners of the firm, but to management as well. Only by adopting arrangements that can restore investor confidence rapidly and effectively can management free itself of suspicion that can be expected to restrict its freedom of action and undermine its mandate.

In principle, compensation of management, a large proportion of which is made up of stock options, should bring managerial interests more closely into line with those of the stockholders whose property they manage. In theory the value of those options will depend upon the performance of the firm, thus leading the compensation of management to depend on the degree of success of their efforts to promote the achievements of the company. In reality, as we know, the stock option grants to management have worked rather imperfectly in achieving this goal. It has been suggested that one improvement in the treatment of stock options that is urgently needed is to require them to be expensed in the company accounts. We will show here, however, that rather than improving matters, expensing will only intensify the shortcomings of the current treatment of the option grants to management.

### **The Principal Agent Problem and Options as Instrument for Solution**

The exposure draft, *ED 2 SHARE-BASED PAYMENTS*, correctly points out that current FASB standards provide for inconsistent treatment of various share-based employee compensation programs. Stock grants and so-called "performance employee stock options" are required to be expensed on a firm's income statements. Traditional at-the-money employee stock options (ESOs), however, either may be expensed or merely disclosed in footnotes at the firm's election under FASB guidelines. ED-2 argues strongly that ESOs can be measured with sufficient reliability that they should be recognized explicitly in the accounting statements of the firm. "The board concluded that, in principle, there is no reason to treat... (various)... employee share purchase plans differently" (BC11).

Conceptually, ED-2 makes an important argument: ED-2 believes there should be no difference in accounting treatment of the different variety of share-based employee compensation plans. It suggests that the acquisition of managerial services by the firm is simply the purchase of one of the inputs that the firm needs to carry out its activities. For example, if a firm should grant options as payment for the purchase of a commodity used in production, say a barrel of oil, the transaction should be recorded on the income statement just as if the company had purchased the oil for cash. Indeed, ED-2 suggests that the transaction can be broken into two separate parts: First, the company sells a call option to the oil company for cash. (Clearly, the receipt of cash would need to be recorded on the balance sheet). Next, the company uses the cash to purchase the oil. (Clearly, the company would then make the entry "debit oil inventory" and "credit cash").

In this comment, we will argue that two points are relevant. First, the grant of a vested share of stock is quite easy to value—it is simply the market value of the stock grant, perhaps adjusted for lack of liquidity. As we will show later, however, it is virtually impossible to put a precise value on a complex long-term stock option whose exercise is contingent on a variety of conditions. Second, there is a major difference between the grant of an option to an employee and the sale of an option to a third party such as an oil supplier or an investment banker, because of the incentive and agency effects of the former. We will deal with this crucial distinction first.

We can make the distinction we wish to draw with a real world example: Warren Buffet has suggested that the value of ESOs granted to Coca Cola employees can be easily and unambiguously valued. The company can simply request that several investment banking firms bid on the purchase of deferred options with terms equivalent to those granted to employees. Even if the terms of the two options were indeed equivalent, which they are not (for example, ESOs may be forfeited), we believe the effect on the Coca Cola Company would be entirely different. The holding of an option by an investment banker (or a subsequent financial investor) is fundamentally different than the holding of an option by an employee. In the latter case, *the firm benefits from important positive agency and incentive effects*. In the former case, the firm receives no such benefits. Hence, the cost, more particularly the opportunity cost, to the firm of the two transactions is fundamentally different.

The following sections of this report will contain a complete discussion of the relevant agency and incentive effects and their pertinence for the ED 2 proposals.

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## The Two Purposes of Stock Options

There may be many considerations that lead the management of a firm to undertake an issue of stock options to its employees. However, the literature recognizes two primary objectives of such a step and these must be understood if the relation between this action and cost is to be comprehended. The first of these two purposes is to provide the firm a substitute for some part of the compensation the enterprise would otherwise have to provide to the recipient employees. The second purpose is to solve what economic analysis describes as the principal-agent problem—the possible divergence between the interests of the management of a corporation and those of its stockholders.

The first of these purposes is straightforward. For example, consider a firm that is strapped for cash and subject to other financial difficulties. Suppose the firm locates an experienced executive with an outstanding track record in dealing with such problems. Such persons are not obtained cheaply, and the cash poor firm may not feel itself in a position to commit itself to providing the compensation needed to induce this individual to join it. Instead, it can offer that person stock options in lieu of a substantial portion of the compensation demanded. An agreement between the company and the individual can then be sought on the quantity of options that will serve as an appropriate equivalent of the foregone compensation. These options then serve as a substitute for cash payments to the individual in question. But as we will see presently, their status as costs to the firm are quite distinct.

The second of the two primary purposes of the issue of stock options is very different, though such an issue may well be undertaken to serve both objectives. As has already been emphasized here and as has long been recognized by economists and other observers, the modern corporation is characterized by separation between ownership and management. Unlike the minuscule enterprise that is overseen by its proprietor, the large corporation's managers are, as it were, hired help who, if the arrangements are inappropriate, may choose to pursue their own agenda rather than those of the true proprietors of the firm.

Here, economists speak of the stockholders as the *principals* of the firm and the members of management as the *agents* of those principals. Clearly, without suitable precautionary measures, the principals have good reason for concern about the temptations for the agents, consciously or unconsciously, to give priority to their own interests rather than those of the principals. The recognized way to deal effectively with this dilemma is to modify the nature of the payoffs offered to the agents in such a way that brings their interests more closely into line with those of the principals. That is precisely what stock options are designed to do.

Stock options can achieve this result in a straightforward manner. Because the recipient of the options benefits from them only to the extent that the price of firm's stocks rises above its value at the time the options were issued (or rises more than do the stocks of comparable firms), the recipient members of management are given the incentive to strive as hard as they can to increase the value of those stocks. But that is precisely what serves the interests of stockholders.

The remainder of these comments deals with five major issues raised by the expensing proposal in ED-2. The first issue is that such expensing implies that there is a demonstrable economic cost to the company or its shareholders incurred by the issue of employee stock options, but further examination of the issue indicates that this may not be true, particularly when the options serve their incentive and agency purposes effectively. The second and third issues are whether employee stock options can be valued with any reasonable degree of certainty and whether the expensing of employee stock options increases the clarity and transparency of financial statements. Our concern is that expensing of employee stock options will have the unintended consequence of making earnings statements less clear and less comparable. The fourth issue is whether expensing restricted stock is logical and appropriate, particularly while employee stock options are not subject to such a requirement. The fifth concern is whether given efficient markets it matters that employee stock options are expensed or merely disclosed.

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## Stock Options, Costs to the Firm and Cost to the Stockholders?

Is there a clear-cut cost, or even *any* net cost to the firm entailed in the issue of stock options to employees of the firm? Before getting to the heart of the matter, it is important to note that the issue of the options for either of the two purposes just described has an inherent offset that is beneficial both to the firm and its stockholders. This is obvious if the options are provided to offer the desired incentives to management—to deal with the principal-agent problem. If the options induce management to work harder—to create better products, to cut costs, to promote sales, or otherwise to contribute to profits and to the value of the securities of the corporation—then they clearly provide a benefit to stockholders. At most, any cost to stockholders that options are said to entail must be lower than that of any equivalent compensation, such as cash salary payments, that provides no incentives to the employee to align their interest with those of the shareholders.

Thus, any cost to the firm of the grant of employee stock options may well be offset, in part, in their entirety or even more than offset by any significant beneficial incentive effects the options provide. In addition, it is important here to distinguish also between a cost to a given body of stockholders and a cost to their firm. Even though the firm is the property of the body of its stockholders, a newly issued stock option, if it does nothing else, merely redistributes some of the firm's future earnings between the initial holders of its stocks and the new stockholders created by the options. Unlike an increased wage payment that, *ceteris paribus*, reduces the firm's yearly net earnings, a new employee stock option that leaves all else unaffected preserves the firm's earnings unchanged.

To the extent that employees accept lower cash compensation as a result of the grant of employee stock options, such grants also help to preserve the firm's cash. To the extent that the employees later exercise their options after a rise in the stock price of the firm, the employees pay the firm the fair market value of the firm's stock price at the time of the option grants. In neither event does the firm incur any direct cost.

### The Argument that the Cost of an ESO is its "Opportunity Cost"

Those who favor expensing of stock options in their accounting treatment on the grounds that the grant of an employee stock option does entail a cost after all, and that cost is the opportunity cost that is thereby incurred. Economists have coined the term "opportunity cost" to refer to a cost of some action that entails no direct cost outlay, but that nevertheless causes the individual that undertakes the action to forego some income or wealth, leaving him no better off than he would have been if he had made the corresponding dollar payment. For example, an individual who purchases a small shop for \$300,000 with cash he has just inherited but which he could have put into government bonds yielding a



7 percent return, foregoes just as much net income as if he had been able to invest the money at the same interest rate. The 7 percent foregone, then, is the opportunity cost of the investment.

It is then argued that while the grant of the stock option entails no direct payment by the firm to the employee who receives it, it does incur an opportunity cost. That cost takes the form of the lower price the firm can obtain for its securities as a result, as the purchasers of its stocks and bonds realize that the value of the shares has been diluted because of the increase in the number of claims upon the company's earnings.

It may then be argued that the purely dilutive effect of the issue of a stock option does have a clear opportunity cost because it reduces the price of the firm's shares since it reduces the price below what it otherwise would have been. But the evidence indicates that in general the issue of employee stock options has incentive and agency effects that work in the opposite direction (see text and appendix below). That is, the grant might indeed incur an opportunity cost of the sort that is cited if the acquisition of the right to acquire the securities at the given price were the end of the story. But there is, emphatically, more to the scenario. For also, inseparably entailed in the ESO grant is its incentive effect which, if successful, leads the recipients to act in a manner that increases the firm's

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income per share. Thus, suppose that the dilution effect of an ESO grant reduces earnings per share by 2 percent, but the incentive effect raises those earnings by 3.2 percent. Evidently there has been no net decrease in security value. On the contrary, earnings per share will have risen 1.2 percent. On average, the evidence does indicate that in reality these incentive and agency effects in general more than offset the dilutive consequences. Therefore it would appear that any such net opportunity cost must typically be zero or negative. That is, typically there can be no such opportunity cost at all.

It may be argued that there is an opportunity cost of a different sort, that an employee stock option issued when the price was \$10 but exercised when the stock price reached \$50 entailed an opportunity cost of \$40 to the firm. But that is no different than making the absurd claim that there is an "opportunity cost" to the firm of raising cash by selling a share on the open market at a time when its price was \$10 rather than postponing the issue to some future distant date when its price may prove to be \$50. Clearly, these choices are not reasonably interpreted as substitutes for the firm. For example, for the firm that needs money today it is not an equivalent choice to obtain it, say, four years later. Indeed, this purported opportunity cost calculation is even more severely damaged by the fact that the rise in stock price may itself well be a partial consequence of the issue of the options.

The factual issue, then, is whether the detrimental dilutive effect of the grant of an employee stock option on the corporation's shareholders and the evaluation of the stocks in the marketplace at large are considered to outweigh their benefits to the firm. If the detrimental effects of such option grants were considered greater than the offsetting positive effects, then the price of the firm's stock would fall and this would indeed result in an economic cost to the firm—an increase in the firm's cost of raising equity capital. On the other hand, if the shareholders and the market were to consider the positive benefits of the option to outweigh the dilutive effects, then the firm's stock price would not fall but would remain unchanged or possibly even increase. If this latter expectation were in fact shared by shareholders and the marketplace, then the grant of employee stock options would have no net cost to the firm—neither an opportunity cost nor any other form of a net cost—because the firm's cost of raising equity capital would remain the same or even decrease as a consequence of such grants. Which of these two possibilities characterizes reality is, of course, a matter to be settled by empirical evidence. Fortunately, the data on this subject have been investigated in a number of studies.

#### **Empirical Work Estimating the Effect of ESO Grants on Share Prices Generally Show the Effect to be Positive, Implying that there is No General Net Economic Cost to the Firm.**

As has been shown above, employee stock options in principle have both positive and negative effects on share prices. They tend to reduce earnings per share when measured on a "fully diluted basis," i.e., accounting for their potential exercise. But they also have beneficial incentive and agency effects. As discussed above, the issue of options does not reduce the firm's earnings but rather potentially redistributes a portion of the equity claims on the firm from existing shareholders to the option holders. In theory, the existing shareholders are willing to give up some equity to the employees on the presumption that the beneficial incentive and agency effects stemming from the options will cause the firm's value to grow more quickly by an amount sufficient to benefit those current shareholders.

There nonetheless is a possibility that the issuance of options can indeed constitute an economic cost to the firm. This is so because the firm's shareholders and the market may believe that the dilutive effect of employee stock options is greater than the anticipated benefits from the agency and incentive effects. If the shareholders and the market were to believe the detrimental effects to outweigh the beneficial effects, then the firm's stock price would fall in response to this expected diminution in the value of the firm. If stock prices declined, then the firm's cost of raising equity capital would be increased. An increase in the firm's cost of raising equity capital can legitimately be interpreted to constitute a net economic cost to the firm. On the other hand, if the market anticipated that the beneficial effects of options would equal or outweigh the dilutive effects, then the firm's stock price

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would remain unchanged or even increase above that which would otherwise have prevailed. If the stock price remained unchanged or increased, then the firm's cost of raising equity capital would remain unchanged or would decrease, with the issuance of the options then having no net economic cost to the firm.

Whether the issue of employee stock options then constitutes such an economic cost to the firm is an empirical question that must be examined by study of the effect of employee stock options on stock price. A number of investigators have attempted to measure empirically whether in their net effect employee stock option grants tend to raise or lower stock price in reality. In the Appendix, we briefly review some highlights of the empirical work. We conclude that while these studies produce different estimates of the effect of option grants on share prices, most find a positive effect on shareholder wealth and none of the studies provides convincing evidence that the net effect on share prices is negative.

#### **Some Methodological Problems**

There are some very difficult conceptual and methodological problems involved in all of the analyses we will review which are important for the current discussion because they help to show why the value of an ESO grant is so difficult to estimate. What we seek to determine is whether the value of options granted has a positive or negative influence on share prices. Certainly, we know that ordinary expenses tend to depress share prices. For example, if a firm's earnings decline with increased expenses we can expect the stock price to suffer. But we have seen above that the fair value of options granted can only be estimated and the estimates used are far from precise. One method used in the studies is to estimate the value via a Black-Scholes formula as used in the footnotes of the financial statements of the different firms. Unfortunately, since each firm estimates the value of option grants using different assumptions, there can be substantial differences among option expense estimates even for similarly situated firms. Even more fundamentally, the best yardstick available to measure the value of employee stock options—the Black-Scholes option pricing model—cannot and does not measure the value of employee stock option grants with any reasonable degree of precision or economic certainty.

There is an even more serious statistical problem to be overcome. Most of the empirical studies attempt to determine the effect of option expense on share price. For this purpose, a number of the empirical studies have used firms' Black-Scholes based option expense estimates from the firms' FAS 123 footnote disclosures. But as noted earlier, the

amount of option expense estimated via the Black-Scholes model depends on the price of the shares. As a result, these empirical studies entail a statistical difficulty known as a "simultaneity problem." Option expense may influence share price but share price also influences option expense. Different studies deal with this problem in different ways. Indeed, in some studies, despite the technical knowledge and sophistication of the investigators, the investigation is driven to estimate option expense in a patently artificial way, and it is hard to know if the empirical results are simply artifacts of the particular method of estimation.

Finally, many of the statistical studies attempt to show the relationship of stock prices to a set of explanatory variables, usually the following: earnings, book value, *expected future growth*, and the fair value of option grants. If a negative sign is obtained on the option expense variable (i.e., a greater value of options issued is associated with lower stock prices), at least one study has interpreted the result as indicating that option grants depress share prices. That is because the procedure of the analysis in effect first eliminates the influence of earnings, book value and expected growth upon stock price and attributes to the ESOs that portion of the stock value that remains after this deduction. But, this means that all *that is being measured is the negative dilutive effect of the options, giving no credit for their beneficial consequences*. That is because the positive incentive effects are already implicitly separated out and discarded, since the expected growth variable, in effect, already captures the beneficial effect of the options on future performance.

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It is clear that none of these studies can be considered dispositive. Nevertheless, the substantial number of papers written on the subject fortunately do suggest a tentative conclusion. The majority of the studies that have attempted to measure the net effect of ESO grants on the firm and its shareholders find that ESO programs have a positive net effect on share prices. Because of the considerable measurement and econometric problems that beset all the analyses it is not surprising that some studies are unable to measure any statistically significant effect at all. But, with one exception, those that succeed in obtaining statistically significant results find the effect of ESOs on share prices to be positive. There is one study (Hillegeist and Penalva—see Appendix, below) that appears to find a significant negative effect on share prices from the value of options granted. But the results of this exceptional study are not robust. Moreover, that study finds that *when firms increase their ESO grants, they experience better future performance*. Thus, even accepting their findings at face value, the net effect of ESO grants is a beneficial one for the firm and its shareholders.

We conclude that much of the evidence is indeed consistent with the possibility that the incentive and agency effects of stock options may be so substantial and favorable to the stockholder that employee stock options generally constitute a net benefit rather than a cost. Many of the available studies indicate that stockholders predominantly are net beneficiaries when firms choose to issue options to their employees. While the empirical evidence cannot be deemed unambiguous in indicating whether there is a net benefit to shareholders from the issuance of employee stock options, the preponderance of the empirical investigations do reach the conclusion that in general employee stock options offer gains to stockholders. While we cannot claim that a statistically significant affirmative net benefit has been shown beyond any reasonable doubt, we can, however, unambiguously conclude that there is no measurable net economic cost to the firm or its shareholders from the issue of employee stock options (i.e., to a reasonable degree of economic and statistical certainty, the positive effects of employee stock options are at least equal to the negative dilutive effects to shareholders).(7)

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(7) As we were preparing our comments, Professors Joseph Blasi and Douglas Kruse of Rutgers University and Aaron Bernstein published a new book on stock options. See Blasi, Kruse and Bernstein, "In the Company of Owners: The Truth About Stock Options and Why Every Employee Should Have Them" (Basic Books 2003). In their book, the authors conclude, as we have, that the positive incentive and agency effects of employee stock options exceed their potential dilutive effect upon shareholders.

#### **Stock Options are Not a Demonstrable Cost of the Firm or the Shareholder, Merely a Redistribution of Ownership Between the Current Shareholders and Management.**

The final consideration here, however, is perhaps the least widely recognized. This is the fact that the issue of employee stock options must be recognized as only constituting a *redistribution* of benefits between initial stockholders and the new prospective stockholders who have obtained this position by their receipt of the options. It does not result in any reduction in the overall size of the firm's total earnings pie. Rather, it only affects the way in which that pie is sliced and divided up among future shareholders. And that is so even if the options lead to absolutely no change in the performance of management and the firm's future prospects. This is markedly different from the effect of, say, a rise in the cash wages of the company's current employees which, if it does not affect their performance, must result in a net reduction of the total profits of the firm. The latter is a cost to the firm in that, without offsetting benefits, it reduces the size of the earnings pie. The stock option issue, in contrast, leads to no such reduction in the earnings of the firm.

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The point in all this is that it would be erroneous to take the cost of a direct expenditure such as a cash wage cost to be equivalent to that of an employee stock option. And there is simply no valid empirical evidence showing that the grant or exercise of an employee stock option constitutes a measurable economic cost to the firm. The empirical literature to date shows that the issue of employee stock options normally either has no measurable cost to the firm or shareholders, or that such an issue actually benefits the firm and its shareholders, as shown by the studies summarized in the appendix to these comments. It simply cannot defensibly be claimed that the issue of employee stock options is a normal cost to the firm from the empirical research performed to date.

#### **Can We Measure Employee Stock Option Expense With Any Degree of Certainty?**

ED-2 argues that the criterion for recognition of option expense (i.e., deduction of the expense on the financial statements) is that the expense can be measured "reliably," and that the value of ESOs can reliably be measured. We will show next that this conclusion is incorrect.

The value of long-term stock options granted to employees cannot be estimated from the economic evidence with a reasonable degree of certainty. The disciplines of economics and finance do not provide a method by which the value of long-term employee stock options can be measured with any degree of accuracy, particularly given the long-term nature of such options and the variety of special restrictions involved. The Black-Scholes model, the most sophisticated tool available for the purpose, works extraordinarily well for periods up to three months in maturity. But even for plain vanilla exchange-traded options, the Black-Scholes model works less well for options with maturities from six months to one year. And for longer periods it is inherently unreliable and inaccurate.

It is frequently suggested that developments in financial asset pricing theory now make it possible to measure the value of stock option grants with reasonable precision. A remarkable Nobel Prize winning contribution by the late Fisher Black, Myron Scholes and Robert Merton is the construction of an option pricing model—commonly known as the Black-Scholes model.(8) This model is now widely used by option traders to price traded options at the Chicago Board Options Exchange and other exchanges. This model does an excellent job of predicting the actual prices at which the most active marketable short-term options actually trade in the market. But that is not enough for the task of valuing ESOs.

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Both Professors Black and Scholes and Professor Merton cited a paper we wrote with Richard Quandt on the valuation of convertible securities in their Nobel Prize winning articles. William J. Baumol, Burton G. Malkiel, and Richard E. Quandt, "The Valuation of Convertible Securities," Quarterly Journal of Economics, Vol. 80, February 1966, pp. 48-59.

### Some Aspects of Option Pricing Models

Since, in the discussion that follows, it will be necessary to refer back to some aspects of the option pricing model, it will be useful here to review certain concepts. A call option gives the owner of the contract the right but not the obligation to purchase a share of company stock at a fixed price (the exercise or strike price) on or before a certain date (the expiration date). The buyer of an exchange-traded option pays an amount called the option premium to obtain such a right. The premium (less commission) is given to the option seller (or writer) who takes on the obligation to sell the shares to the option buyer at the exercise price.

Intuitively, we can understand what determines the size of the option premium. Premiums will be larger the longer the time to expiration since more time will be available for an event favorable to the option holder to occur. Premiums will be larger the higher the price of the underlying stock. Obviously an option on a one dollar stock can't be worth more than one dollar (otherwise, you would just buy the stock for one dollar) while a three month option on a hundred dollar stock can be worth five dollars or

more. Interest rates also influence option premiums since the option buyer puts up less money than the person who buys the stock outright.

### The Crucial Role of Volatility

The most important factor influencing option premiums is the volatility of the underlying shares. Options are worth more if the underlying stock is more volatile. To see why this is so, consider the following example: Suppose we have two stocks currently selling at \$30 per share. Suppose that Stock A is very volatile and that in three months time each of five future values is equally likely ranging from a low of \$10 to a high of \$50. Stock B is less volatile and the equally likely range of future values runs from \$20 to \$40. Consider now how much a 3 month call option with an exercise price of \$30 is worth. At expiration, the option will be worth the difference between the actual stock price and the \$30 exercise price. Thus, if the stock sells at \$30 or less, the call option expires worthless. But if the stock sells at \$40 at the end of the period, the option has an "intrinsic" value of \$10 since the holder could simultaneously exercise the option at \$30 and sell the stock in the open market at \$40. We then can see clearly from the exhibit below that in the case where market prices go up, the high volatility Stock A has larger option payoffs than the less volatile Stock B. Of course, A can also decline more than B, but in that case the option simply will not be exercised.

The Value of Volatility

High-Volatility	Stock A				
Stock price	\$ 10	\$ 20	\$ 30	\$ 40	\$ 50
Option payoff	0	0	0	10	20
Low-Volatility	Stock B				
Stock price	\$ 20	\$ 25	\$ 30	\$ 35	\$ 40
Option payoff	0	0	0	5	10

It follows then that option buyers will pay more for options on more volatile stocks. And indeed they do. The standard option pricing formula developed by Black and Scholes takes account of this. The most important variable from which options derive value, according to the Black-Scholes model, is the volatility of the underlying stock.

### The Problem of Estimating Volatility

While the mathematics underlying the Black-Scholes option pricing model is somewhat advanced and complex, the important point is that the future volatility of the underlying stock plays a crucial role in the model and that estimating future volatility is extremely difficult and becomes increasingly even more difficult the further out in time one attempts to estimate volatility. The Black-Scholes option pricing formula can provide reasonably good measures of the value of exchange-traded, short-term put and call options. Variants of this model produce value estimates for short-term (such as one to three months) options that are not only extremely close to one another, but that also track with considerable precision the actual market prices of these instruments. This is so because recent past volatility tends to be reasonably persistent over the short term. It is important to point out, however, that for longer-term (such as six months to one year) exchange-traded options, the Black-Scholes formula can produce a wide range of estimates, and actual market prices of traded instruments vary substantially from their predicted values. Unfortunately, volatility over the longer term is notoriously difficult to estimate and the longer the time the option has to run, the greater the difficulty in arriving at an estimate of its value. This inherent limitation in option pricing models is exacerbated when one moves from so-called "long-term" exchange traded options (i.e., six months to one year) to employee stock options with lives measured in years rather than months.

The problem stemming from the fact that stock volatility is not constant over the longer term has long been recognized by market practitioners. Traders tend to put less reliance on Black-Scholes estimates as the time to expiration increases. The problem is widely recognized and is discussed in texts on option pricing such as the leading text by John Hull:

Pricing errors caused by a nonconstant volatility increase as the time to maturity of the option increases. A nonconstant volatility has relatively little effect when the time to maturity is small, but its effect increases as the maturity of the option increases. The reason is easy to understand. Just as the standard deviation of the stock price distribution increases as we look farther ahead, so the distortions to that distribution caused by uncertainties in the volatility become greater as we look farther ahead.(9)

We see that even for longer-term exchange traded options (i.e., six months to one year), the Black-Scholes formula does not yield precise estimates.

(9) John C. Hull, *Introduction to Futures and Options Markets*, 3rd Ed., 1999, Prentice-Hall, Chapter 17 "Biases in the Black-Scholes Model", pp. 382-383.

When one adds the complications that executive stock options do not vest immediately and are subject both to forfeiture and restrictions on the sale of the option, it clearly becomes virtually impossible to put a precise estimate on the option's value. Each of these factors violates the assumptions underlying the Black-Scholes model. Moreover, employee stock options generally have durations of five to ten years and, as noted above, the Black-Scholes formula has considerable difficulty even in pricing the longer-term six month to one year exchange-traded options.

It is widely recognized in the finance literature that the Black-Scholes model is unsuitable for employee stock option valuation, as noted in a recent article by Richard Friedman:

Several inherent problems plague the Black-Scholes model in determining employee stock option values. For example, it was developed for European-style options, which are exercisable only at their expiration date with no vesting and transferability restrictions. Almost all U.S. employee stock options can be exercised at any time after vesting (usually by year seven or eight) and are rarely transferable. In addition, employee stock options can almost never be sold or traded, unlike publicly traded options.<sup>(10)</sup>

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(10) Friedman, R., 2001. "What Are My Options Worth?" Article on the web site of MyStockOptions.com.

*Adjusting Black-Scholes for the Special Features of Employee Stock Options*

It is, of course, possible to attempt to adjust the Black-Scholes model to account for many of the special features of employee stock options. Mark Rubinstein has proposed a rather ingenious model to value a fixed number of employee stock options granted with strike prices equal to the current market price.<sup>(11)</sup> The model, however, uses 16 input variables, many of them difficult to estimate, and a wide range of estimates can be derived from the model. It is particularly important, as Rubinstein expressly states in his article, that he is not attempting to take into account incentive effects of the employee stock options, but rather is merely seeking to value the options granted to the employees. Rubinstein points out that the inherent subjectivity of the estimates required can allow firms to report values half or double those for other similarly situated firms. Rubinstein also considers use of "minimum value" accounting—the primary method suggested by the Financial Accounting Standards Board for private companies. But even use of this minimum value method can lead to demonstrably inconsistent results

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for similarly situated companies as the terms of the options can easily alter the features of the employee stock option grant in a way that adopts zero as the minimum option value.<sup>(12)</sup>

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(11) Rubinstein, M., 1995. "On the Accounting Valuation of Employee Stock Options." *The Journal of Derivatives*, pp. 8-24.

(12) Rubinstein, *op. cite*, p. 19.

One can get an idea of how sensitive option values can be to the terms of the contract and the assumptions involved by an examination of the table below. Rubinstein shows that by changing the maturity of the option period and the volatility assumption, option values can range from \$11.56 to \$38.49 for a \$100 stock.

Sensitivity of  
Black Scholes Option Values  
(At the money option—stock price \$100)

Ann Volatility 25%	
One Year to Expiration	\$ 11.56
Ann Volatility 35%	
10 Years to Expiration	38.49

Source: Mark Rubinstein, "On the Accounting Valuation of Employee Stock Options" *The Journal of Derivatives* (1995) pp. 8-24. With the high and variable volatility that has recently been experienced in our equity markets, the disparities that can arise in valuation of employee stock options are likely to be even wider.

We conclude that it is impossible to measure the value of stock options granted with a fixed strike price to employees with any degree of precision or economic certainty.

*The Valuation of Employee Stock Options in Private Companies Presents Additional Problems*

If it is difficult to estimate expected stock-price volatility for public companies, it is virtually impossible to do so for private companies. ED-2 suggests a number of possible methods by which the volatility might be measured, but they will produce very large variations. The Board acknowledged that resulting estimates of the value of ESOs will be subjective (BC-140, page 38).

In the final analysis, ED-2 recognizes how difficult it will be to come up with comparable values that will permit analysts to compare different companies. Indeed, the Board did not even specify that the Black-Scholes model had to be used. Presumably a variety of binomial option-pricing formulas might be employed. The exposure draft states:<sup>(13)</sup>

The Board decided that it is not necessary or appropriate to prescribe the precise formula or model to be used for option valuation. There is no particular option pricing model that is regarded as theoretically superior to the others, and there is the risk that any model specified might be superseded by improved methodologies in the future. In any event, there should be little difference between the results of the various models. Although the Black-Scholes model is the most well-known model, there does not seem to be any reason to specify that this model should be used rather than another. Entities should select whichever model is most appropriate in the circumstances, provided that the model selected takes into account the features of the options concerned, as discussed further below.

We find it difficult to believe that with a broad variation of models and assumptions and with different means of estimating volatility that analysts will be able to make better comparisons among companies

by having such "expense" data. On the contrary, information about the number of shares reserved for future option exercise and the potential dilution represented will be the most relevant information needed to make useful comparisons among companies and such data are available without any expense entry on the income statement.

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(13) ED-2, page 36, BC131.

*Performance Based Employee Stock Options Present Even More Difficulties for Accurate Valuation.*

We believe that performance based options provide a better way for aligning the interests of management and the firm's shareholders. However, tying the terms of employee stock options to the economic performance of the firm imposes additional problems upon valuation of the options. Firms have innumerable alternatives for alteration of the terms of employee stock options to connect management's payoff from the options to the overall economic performance of the firm. In a free market, different firms will make different choices in order to align the interests of shareholders and management more effectively. One simple method is to increase the number of shares subject to the options if the firm meets or exceeds certain performance targets. Another method is to index the strike price to a broad market index (i.e., the S&P 500) or to an industry performance index. Additional methods are available, and each modification requires an increase in the complexity of the valuation model and data inputs required to value the options properly. The differences in terms of the performance options provided by different firms will provide different incentives, with various degrees of effectiveness, to management and will provide different challenges for valuation of the employee stock options.

If expensing of stock options is mandatory, by altering the terms of performance options, firms will be able to manipulate and manage the amount of expense they recognize from such grants. Various adjustments in the terms affect the valuation of the expense recognized differently. In fact, Rubinstein provides an example of an option contract where the strike price increases by the ratio of the rate of interest divided by the dividend payout return through the vesting date. In this case the option value pricing would produce a value of zero.(14)

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(14) Rubinstein, *op. cite*, p. 19.

The different terms of performance-based options have a combination effect on the value of the performance based options and the different incentives provided to management. It may be possible to construct various different performance-based options that show the same valuation but have different effects on management's incentives and results.

**Will the Expensing of Employee Stock Options Lead to More Clarity and Transparency in Financial Statements?**

The expensing of ESOs will not lead to more accurate indications of the firm's true earnings and offer investors a more accurate evaluation of the firm. On the contrary, expensing will invite costly, time consuming and misleading pseudo calculations that will be designed to camouflage the true performance of the firm whose earnings are lower than might have been hoped for. Moreover, the terms of option grants will be altered so as to produce a calculation that lowers the "charge" required against earnings. Expensing options will not make the financial statements of corporations more comparable. Indeed, quite to the contrary, the expensing of options is likely to make financial statements even more difficult to understand and compare.(15) Expensing of options is likely to lead to an even more distorted picture of a company's financial condition. It will provide a most desired opening for precisely those creative accountants whose actions the ED 2 proposals are designed to circumscribe. In particular, expensing of all employee stock options will introduce the ability to use performance-based options to manipulate the reported expense while introducing additional complexity

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as different firms provide different incentives to management by different terms in the employee stock options (even where the reported expenses may be the same). Depending on what experts are employed to validate the option valuation calculation, a wide range of values (incomparable from company to company) will be used.

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(15) ED-2 argues that zero does not make companies comparable either. But footnotes showing the percent of outstanding shares reserved for option grants—i.e. potential dilution—gives quite an accurate picture of how firms differ in their policies regarding option grants.

ED-2 argues that, even if the valuation of the options is only an approximation, it is better than ignoring their ostensible cost altogether (see ED-2, p. 74, BC286, 287). Holding aside for a moment the fact that there is generally no net economic cost to the firm or its shareholders associated with ESOs, it is critical to recognize that a decision requiring firms to report an expense figure for ESOs will lead to reduce the reliability and comparability of financial statements, rather than the reverse. Because the true expense of a stock option grant cannot be measured, because there exist so many questionable ways to "estimate" the correct figure, and because the terms of the options can be manipulated to produce a wide variation in the calculated values, using standard valuation techniques, one can confidently expect that a decision to expense stock options will quickly give birth to a new and large-scale activity: creative accounting enlisted to produce that expense figure that is most desired by the calculating party or its clients or sponsors. Instead of shedding light on the underlying reality about which the public is entitled to be informed, expensing of options will give rise to further and more intractable distortion and obfuscation. This is not mere conjecture nor an excessively cynical view of behavior. Rather, experience in other arenas confirms that it is an all-too-accurate description of what will emerge.

***Expensing of Employee Stock Options Will Not Provide Meaningful Information about the "Cost" to the Firm or the Shareholders.***

The expensing of employee stock options will not enhance the transparency of financial statements. As discussed above, there is no demonstrable cost related to the issuing of employee stock options. In addition, employee stock options are notoriously difficult to value with any accuracy. Further, the expensing of employee stock options creates divergences between the net income results reported by a company and other measures of profitability such as free cash flow from operations.

We also question whether expensing of options will provide investors with a truer picture of the financial health of companies. For example, high tech companies often have broad-based ESO programs that award stock options to most if not all employees. It stands to reason that if ESOs must be expensed, the companies granting the most ESOs will, all other things being equal, report larger expense figures corresponding to options. As has been widely reported by the business news media, if a number of high tech companies had expensed options based on the basis of the figures reported in footnotes under FAS 123, in many of the companies that reported profits these reported profits would have been completely wiped out by the FAS 123 expense calculations. Yet, as was also reported by the business news media a number of the high tech companies with very large FAS 123 option expense figures have also been generating massive quantities of cash flow from their operations. In some specific instances that we have examined, the requirement of the expensing of options using FAS 123 computations would have resulted in reported losses by some companies on their financial statements while generating successful results by any reasonable measure. We strongly question whether it is not fundamentally misleading to report companies to have incurred substantial losses when they have in fact been generating substantial cash flows from operations and significantly increasing their holdings of cash and short-term investments.

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***It is Not Possible to Obtain a Defensible Valuation of a Stock Option Granted to Management.***

ED-2 argues that the primary objective of financial statements is to provide high quality, transparent and *comparable* information to help users make economic decisions (italics *ours*). There are many cost elements for which data are not readily knowable or where the information is not known at all. There are even cases in which it is unknowable in principle. As a result, accountants frequently and quite justifiably are driven to adopt simplifying proxies that can be used for calculation purposes, even when they demonstrably have little or no relation to the underlying reality. A prime example is a fully allocated cost that ostensibly purports to specify which portion of some total outlay that inextricably benefits several outputs of a firm is to be considered the responsibility of each of the different benefiting outputs. Since there is no way of assigning the unassignable, the accountant is driven to adopt some arbitrary criterion, such as the values or the weights of the different products, as the basis for the apportionment of the unassignable costs and calculation of the "full costs" of each of the individual products. Similarly, conventions such as straight-line depreciation, or even various forms of accelerated depreciation, permit easy workability but may have little relationship between the numbers generated by the calculation and the underlying economic reality. True values, actual costs and relevant practices of reality, however, cannot be determined in this way.

There are many basically intractable problems that prevent proper evaluation of the cost to the firm of the grant of stock options to its management, as we have seen. Of course, many accounting items are difficult to estimate, e.g., depreciation allowances, reserve to bad debts, pension fund expenses, etc. But the incorporation of additional complexities into an item open to considerable manipulation is unlikely to meet the objective of the exposure draft of improving the quality, transparency and comparability of accounting reports. One does not improve the quality of accounting statements by adding a further expense term that is of questionable significance and which is inherently impossible to estimate with a reasonable degree of certainty. In determining, depreciation allowances, at least we know the magnitude of the initial cost of the investment. With ESOs, we are not even certain if there is any real expense at all.

The most fundamental impediment to an evaluation of the "expense" of ESOs is inherent in the purpose of the grant: its hoped-for incentive and agency effects, leading to substantially improved performance by management. If management is provided with stock options whose market value when offered to outsiders would be a million dollars, for example, but when offered to management leads to enhanced effort that increases the present value of the firm's earnings by \$20 million, what is the true cost of those options to the firm and its stockholders? And, as we have seen, the studies that have appeared in the economic literature do indeed support the observation that employee stock options have an incentive effect sufficient or more than sufficient to cover their market value (see also the appendix to these comments). The empirical studies carried out so far report that the issue of employee stock options has either no effect or a positive effect on stock price. Thus, the empirical studies establish, at a minimum, that the issue of employee stock options has no general and measurable economic cost to the firm.(16)

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(16) See also Blasi, Kruse and Bernstein, "In the Company of Owners", supra.

**But Is It Not Illogical to Expense Grants of Restricted Stock and Performance Options and Not Expense Regular ESOs?**

ED-2 argues persuasively that it is illogical to expense grants of restricted stock and so-called "performance options" but not expense at-the-money ESOs. ED-2 states, "the board concluded there is no reason to treat employee share purchase plans differently."(17) We agree with the logic of the statement but would point out what we believe to be the serious dilemma posed by the question.

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(17) ED-2, page 9.

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Consider first, performance options, where the value of the grant will depend upon certain criteria such as an excess stock price performance over that of peer companies and/or the stock market as a whole. As we indicated above, we believe that such options are better instruments for motivating and compensating managers. It is ironic that current accounting rules make it undesirable for firms to issue such options because they need to be expensed while regular ESOs do not. This produces the kind of unintended consequence in which accounting rules prevent a desirable outcome. But as we explained above, the valuation of performance options is even more difficult than the valuation of regular ESOs. Since we urge encouragement of the adoption of such options as a critical contribution to protection of stockholder interests, we would argue that both types be shown not as expenses on the income statement but rather as the number of optioned shares that represent potential dilution and that should be used in the denominator of the (fully diluted) earnings per share calculation. Certainly, both types of options should be treated consistently.

What about restricted stock? We would first point out that restricted stock has an immediate value that can be determined far more precisely than ESOs. ESOs only provide a contingent claim on future earnings to the employees whereas restricted stock is immediately dilutive for the existing shareholders. The base valuation is simply the value of the shares, with some discount then applied to adjust for the restrictions on sale. We would agree that sufficient reliability in the calculation is possible to justify treatment of such grants as expenses on the income statement. Moreover, we would agree that restricted stock grants also can help to ameliorate the agency problems we described above. However, restricted stock does not provide the same degree of motivation as do ESOs. For example, suppose an ESO was considered to be valued at one-fifth of the market price of the underlying stock. This would imply that per dollar of expense the executive has five times the motivation to improve performance over what he/she would have if restricted stock were granted rather than ESOs. ESOs are then particularly effective because they are leveraged. Certainly, no confusion will result if the number of shares outstanding and the potential dilution from ESOs are clearly and visibly presented in the financial statements. And it is not true as ED-2 implies that failure to expense stock options makes financial statements incomparable. The shares currently outstanding and available for issue under option programs gives users of financial information precisely comparable data that are needed to judge the value of different corporations.

**In Efficient Markets, Why Does it Matter Whether Employee Stock Options are Expensed or Disclosed?**

As economists, it is necessary for us to offer a few observations on the role of the efficient market hypothesis in our analysis. After all, there is evidence indicating that in practice markets are indeed efficient, at least to a degree, meaning that their underlying mechanism, together with the participation of informed investors, drives them to reflect and take appropriately into account all pertinent information. This would appear to mean that the market's valuation of a firm can be relied upon to take into account whatever stock options have been granted to management, to value those options appropriately and to reflect correctly the implications for the prospects of the company and its stockholders. Taken to its extreme, the hypothesis that markets are efficient would appear to imply that there can be no hiding place; that whatever is done to conceal or disguise the consequences of the issue of such options, the truth, or its consequences, will out. If this were true, it presumably would not matter whether stock options were or were not expensed in the firm's accounts. The firm's market valuation would instantly emerge and prove correct, whichever approach to stock option accounting were employed.

But this is surely too much to expect of a market, even one that is reasonably efficient. First of all, in reality, adjustments take time in even an effectively efficient market. News does not always reveal itself instantly, particularly when it is deliberately concealed. Thus, sale of stock by members of top management, driven by inside information, may not be known immediately by the market, so that a

decline in the firm's market value, that an openly-reported sale might otherwise herald, can serve to delay the reduction in stock prices. After all, that is surely the hope of those who seek to dispose of their substantial security holdings unobserved.

More generally, recent revelations suggest that attempts to conceal or disguise overvaluation of the firm have hardly been uncommon. Moreover, the attempts seem sometimes to have been successful, as when employees were persuaded to continue to invest their retirement funds in the company, when it was known to management that the market price of its securities was drastically inflated and in danger of collapse. After all, the efficient market hypothesis denies neither that one can fool all of the people some of the time nor even some of the people all of the time. That, ultimately, is one of the main reasons why it is important to improve the accounting rules and to get the improvements right. Above all, it indicates why it is critically important to avoid assiduously changes in the rules that give the appearance of improvement but that really threaten to be more misleading and manipulable than the current procedures.

### **Changes in the System are Urgently Needed but Expensing of Options will Exacerbate the Problems**

The logic of the basic notion that stock options can help to impart consistency to managerial and stockholder interests remains persuasive, and no one seems have proposed a substitute mechanism that promises to serve the purpose effectively. However, no more than modification of the terms on which employee stock options are provided to management is required to remedy their current shortcomings. Several steps can evidently serve the purpose:

#### **Base grant of stock options on performance.**

It has rightly been argued that in a rising stock market even the managements of firms that substantially underperform the market or their industry will automatically gain from any stock options they have received, simply as a result of the fact that a rising market lifts most securities. To avoid rewarding of underperformance it is possible to tie the grant of stock options and, in particular, the quantity granted to the individual executive to two metrics: (1) the grant can be related to the performance of the firm's securities in comparison to that of the market as a whole, via an index such as the S&P 500, or to the performance of related firms; (2) the grant can also be supplemented when there are increases in the firm's growth performance, for example, in accord with any excess of profit or growth performance over and above its own past record. The purpose of indexing the company's stock values to the market as a whole or to that of related industries should be clear—it is to ensure that management is not rewarded for what has been contributed not by its own efforts, but rather by market conditions that had nothing to do with the activities and decisions of the firm's executives. The second metric just suggested for use in managerial stock-option compensation, which can be described as a growth-acceleration metric, has a double purpose. First, it protects the interests of management during a period when improvement of an underperforming asset first begins, and during which some degree of underperformance is likely to persist, and may therefore otherwise drag down the management's compensation, despite what it is accomplishing. Second, it provides a direct incentive for management to devote adequate attention to the firm's growth objectives, whose importance is evident and has already been emphasized here.

#### **Holding Period and the Long-Run Welfare of the Firm.**

It has frequently been asserted that managements tend to devote too much of their attention to the firm's short-run performance and too little to what it will achieve in the longer run. Whether this is true and, if so, what the causes may be, are not the general issues here. However, it is clear that the grant of stock options to management without any steps to deal with this issue does invite inattention to the long run. If the magnitude of management's reward is heavily dependent on transitory surges in

stock values, the consequent distortion of incentives is evident. But this shortcoming, too, has an evident remedy. The distortion can be prevented by tying managerial stock-option payoff more closely to the firm's longer term achievements. This can be done by an agreement with management, as a precondition for the grant of stock options, which requires them to hold for some pre-specified and reasonably protracted period of time any company stocks that they have acquired by the exercise of their options. Since the exercise of an option may be a taxable event for the manager in some jurisdictions, an exception can be made that allows the manager to sell enough of stock acquired upon exercise to defray his/her tax liability as well as the initial cost outlay required to buy the stock. This arrangement evidently will make the options serve as an instrument of systematic *long-term* investment in the firm by top management, and this can confidently be expected to ensure attention to the firm's performance over appropriately protracted periods.

Together, these few modifications in the arrangements that currently are widely prevalent should serve to ensure that true managerial accomplishment is properly rewarded, and that spurious or very evanescent gains provide no benefits to management. At the same time it can help to restore stockholder confidence in management as the dependable guardian of their interests.

Together, these modifications in the arrangements that currently are widely prevalent should serve to ensure that true managerial accomplishment is properly rewarded, and that spurious or very evanescent gains provide no benefits to management. At the same time it can help to restore stockholder confidence in management as the dependable guardian of their interests.

### **Concluding Comments**

As we have suggested, there have been abuses in the use of employee stock options. In some instances, employee stock options have induced managers to undertake actions with only short-run benefits rather than the long-run programs consistent with permanent increases in shareholder value. Rewards in many cases have been excessive and, during the ebullient stock markets of the late 1990s, executives were generously rewarded, as all stocks tended to rise, even if the managers' performance was well below average. But we have argued that such abuses are easily remedied without a change in accounting treatment. We believe that independent directors who serve on compensation committees must be sensitized to their responsibility to their shareholders to prevent excessive managerial compensation. And we support measures that will require all option programs to be submitted to a vote of the entire stockholder body.

We also believe that option programs need to be reformulated in at least two important respects: First, executives who are granted options should be required to continue to hold the stock upon exercise (with one possible exception—allowing them to sell enough shares to provide the capital needed to buy the shares and to pay any related income taxes). The holding period should extend well beyond the executive's tenure with the company so as to insure that the executive is motivated to undertake actions in the long-run interest of the firm and its shareowners and to avoid the creation of a perverse incentive that induces executives to leave their firms. Second, the options should be performance based, that is their value should depend on outperformance by the firm of some objective index such as the performance of stocks in a comparable industry group. Options granted on these terms will better align managerial incentives with the long-run interests of the shareholders and can also be expected to minimize any resulting dilution in earnings per share.

We vigorously oppose, however, the proposal for universal expensing of options. Such a policy threatens to undermine one of the most powerful instruments available to reconcile the incentives of managements with those of its shareowners. Moreover, to the extent that a policy of universal expensing discourages the use of options (and therefore the ability of cash-strapped entrepreneurial new companies to attract talent), society as a whole will be harmed. It is not an accident that the fastest growing and most dynamic companies in the economies of most nations—those responsible for important advances in productivity—are the companies that make the greatest use of options in broad based employee compensation schemes.

Our most important objection to universal expensing is that expensing is virtually certain to have the unintended consequence of making accounting statements less comparable (rather than more so) and less transparent rather than more useful to financial analysts and investors. Current option-pricing models such as the Black-Scholes model and a variety of binomial pricing models can lead to a wide range of estimates of the worth of option grants. Moreover, a requirement of universal expensing will lead to a vast number of variations in the design of option contracts whose purpose will be to minimize the accounting charge required. It is possible to alter option terms via the choice of a reference stock index or a particular interest rate that must be exceeded so as to lower drastically the required charge against earnings. As Rubinstein has shown (see above) in the case of traditional ESOs it is not difficult to maneuver their valuation so as either to increase or reduce their supposed value by as much as 50 percent. And in the case of performance-based options it is even possible to reduce their purported valuation to zero. We are convinced that an expensing requirement will invite complex changes in options contracts and devious manipulation of accounting figures. The result will be less comparable and less useful accounting statements. Indeed, it is quite likely that financial analysts will begin to look at "earnings before options expense" in the same way that they now estimate EBITDA in an attempt to put different accounting statements on a more comparable basis.

The objective of ED-2 is to improve accounting statements in a manner that makes them more transparent and comparable. We agree that companies with large numbers of shares reserved for option exercise should be distinguished from firms with few or no outstanding options exercisable. But the clear and unambiguous way to distinguish such firms is to show prominently the quantity of shares reserved for option exercise (as well as for the shares that may be issued in connection with convertible bond issues, etc.). Moreover, earnings per share on a fully diluted basis should be clearly indicated. But universal expensing of stock options is very likely to have consequences both unintended and inconsistent with the objectives of ED-2. Adding an inherently imprecise and easily manipulable expense item to the income statement is neither good accounting policy nor good public policy.

We are also convinced that once one removes the disparity in the treatment of options that are performance based and those that are not, the superiority of the former for the objectives of the firm and for the public interest will automatically lead to a substantial movement toward use of a performance basis. The firm's directors will be driven in that direction by the resulting prospects for improvements in the firm's performance and its reduced risks, and by the ensuing stockholder pressures for such a move. Adjustment in the number of options offered can make the change attractive to management as well. On such grounds, in addition to the likelihood that expensing will make the accounts far less informative and comparable, it seems clear to us that the appropriate accounting change is elimination of the handicap that currently besets performance options, and modification of their accounting treatment to match that currently applicable to options that are not performance based, with no change in the treatment of the latter.

William J. Baumol  
Burton G. Malkiel

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### *Appendix: A Review of the Pertinent Empirical Studies*

Below we summarize the major conclusions of the empirical studies that attempt to measure the effect of ESOs on stock prices.

- a) James Brickley, Sanjai Bhagat, and Ronald Lease, "The Impact of Long-Range Managerial Compensation Plans on Shareholder Wealth," *Journal of Accounting and Economics*, Vol. 7, 1985, pp. 115-129.

The authors examine the stock price effect of the announcement of long-range compensation programs. Such an analysis is called an "event study." In long-range compensation programs the authors include stock option plans as well as grants of stock appreciation rights (SARs), restricted stock, etc. No significant immediate effects (over the next two days) either positive or negative are found. There is some uncertainty, however, over the time needed for details of the plan to have reached the market. Therefore, they examine price effects (relative to the market) over longer periods such that as from the board approval date to the day after the SEC received news of the plan (the SEC stamp date) and from two days after the SEC stamp date through the day after the shareholder meeting approves the plan. The price effects for these longer periods are positive and statistically significant. The authors conclude that on average, these plans tend to increase shareholder wealth.

- b) Richard Defuseo, Robert Johnson, and Thomas Zorn, "The Effect of Executive Stock Option Plans on Stockholders and Bondholders," *The Journal of Finance*, Vol. XLV, No. 2, June 1990, pp. 617-627.

The authors find that the "event" constituted by an executive stock option plan announcement is followed by *positive* stock price reactions and *negative* bond price reactions. They conclude that executive stock options do improve managerial incentives but also may induce a wealth transfer from bondholders to stockholders as managers take on more risk. To the extent that bond prices decline in response to the announcement, the decrease in bond price implies that there can be an increase in the cost of debt capital for the firm; however, the accompanying stock price increase demonstrates that stockholders believe that the beneficial effects of the stock options outweigh any increased interest costs that will reduce the corporation's earnings.

- c) David Aboody, "Market Valuation of Employee Stock Options," *Journal of Accounting and Economics*, Vol. 22, 1996, pp. 357-391.

Aboody finds that the total value of all options issued has the expectable dilutive effect on share price after netting out of any favorable incentive effects on earnings. But the value of options recently granted (and which have not yet produced favorable incentive effects on earnings) has a positive effect on share prices. In the study, Aboody makes his own estimates of the value of options granted. He also uses the FASB method of calculating compensation expense and finds it has no additional explanation power.

- d) Douglas J. Skinner, "Are Disclosures About Bank Derivatives and Employee Stock Options' Value Relevant?" *Journal of Accounting and Economics*, Vol. 22, 1996, pp. 393-405.



This paper criticized the methods employed in the original (1996) Aboody study and led to some of the changes employed in a second study by Aboody, *et. al.* Skinner argues, however, that methodological issues continue to affect all studies that attempt to estimate the value of option grants (current and past) on share value. Skinner suggests that "event studies" are the appropriate method for determining the effect of stock-option grants on share prices.

- e) Lynn Rees and David Stott, "The Value-Relevance of Stock-Based Employee Compensation Disclosures", *Journal of Applied Business Research* Vol. 17, No. 2 (Spring 2001) pp. 105-116.

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The paper examines the association between employee stock option compensation expense as stipulated by FAS123 and firm value. The authors conclude that "the incentive benefits derived from ESO [employee stock option] plans outweigh the costs" and that the option forms of employee compensation "is not a typical expense." Employee stock option "expense" as measured by FAS123 affects firm value (i.e., stock price) positively and statistically significantly "in the opposite direction from other income statement expenses."

- f) David Aboody, Mary Barth,(18) and Ron Kasznik, "SFAS 123 Stock-Based Employee Compensation Expense and Equity Market Values," July 2001, GSB Stanford University Working Paper.

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(18) In citing this study we should make it clear that Mary Barth is a member of the IASB. Thus, it would be disingenuous for us to imply that either she or, through her, the IASB accepts any of the conclusions or evaluations offered in this submission. In particular, it should not be suggested that, while the study in which she participated indicates along with the other studies that ESOs do not depress the share prices of the firm, this implies anything about her views on the desirability of expensing of employee stock options.

The authors find the expected negative dilution effect of employee stock option grants on stock prices if the incentive effects of options on expected future earnings are included in the analysis as a separate predictor. But if the expected future earnings term is omitted, then SFAS 123 stock-based employee compensation expense has a positive effect on stock prices. Thus, the authors suggest that the net effect of stock options (considering both the negative dilution and positive incentive effects) is positive but statistically insignificant (i.e., no measurable net economic cost to issuance of the options).

- g) Timothy Bell, Wayne Landsman, Bruce Miller, and Shu Yek, "The Valuation Implications of Employee Stock-Option Accounting for Computer Software Firms," July 2001 Working Paper.

The authors use a sample of 85 computer software firms and conclude that employee stock options are valuable to the shareholders of software companies. They suggest that the appropriate way to determine how market values reflect option grants is by treating them as an (intangible) asset. Most important for the issue considered here, the variable treating employee stock options as an asset has a significantly positive effect on the firm's market value. Indeed, the authors find that "ESO assets" appear to be priced in the market at levels higher than other net assets of the firm.

- h) J. Core, and D. Larcker, "Performance Consequences of Mandatory Increases in Executive Stock Ownership," Working Paper, Forthcoming *Journal of Financial Economics*, 2002.

The authors examine the performance of firms adopting "target stock ownership" plans. These plans are typically mandated by boards to increase executive stock ownership. They find that firms adopting target ownership plans have lower industry adjusted returns over the two years prior to adoption. One and two years after the adoption of the plan, however, they find that firms with these plans outperform a matched sample of similar firms.

- i) Stephen Hillegeist and Fernando Penalva, "Performance and Valuation Consequences of Employee Stock Options," Working Paper, January 2002.

Unlike previous studies, the authors find that the fair value of employee stock options granted during the year has a negative and statistically significant effect on share price. They find no association, however, between the fair value of outstanding options granted in prior years and share prices. Their finding that option grants negatively affect share prices does not continue to hold, however, when the entire data set (including outliers) is considered, and when a different measure of options expense is used.(19) In any event, even accepting the Hillegeist and Penalva findings at face value, we cannot interpret their study as showing a *net* cost from employee stock option plans. This is so because their analysis shows that future stock performance is enhanced by firms that increase their

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employee stock option grants. Thus, the *net* effect on shareholder wealth is likely to be positive rather than negative. Indeed, the authors conclude that firms in general are *below* their optimal level of employee stock option grants.

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(19) We were curious why the Hillegeist & Penalva working paper results were inconsistent with all of the other empirical analyses. Upon inspection of their regression specification and statistical techniques, we noted several statistical techniques that were questionable. We asked Dr. Atanu Saha of the Analysis Group to contact Professors Hillegeist and Penalva and to obtain their data set. We then asked Dr. Saha to re-run their particular Hillegeist and Penalva regressions after correcting the shortcomings we perceived in their particular specification of the regression equations and the statistical techniques. After adjustment for these items, the Hillegeist & Penalva regressions are consistent with the other empirical studies and show that the relationship between estimated option expense and share price is not statistically significant from zero. In other words, the revised Hillegeist & Penalva regressions show that there is no measurable economic cost to the issuance of the options. The details of the work performed by Dr. Saha are available from Analysis Group.

Considering the studies just reviewed as a group, it is clear that they provide a consistent picture, though not one that is definitive. The role of employee stock options is complex and continues to be investigated in the economic literature. Much remains to be learned about the subject. But a good deal is well understood about the topic. We know that their issue can, at least in principle, be beneficial both to the issuing firm and to all of its stockholders. We know, consequently, that they need not entail a cost, as the term is normally and appropriately interpreted. We know that even the value of the employee stock options is not in general accurately and unambiguously determinable. Consequently, a proposal to base the calculation of their purported costs on such a valuation can hardly be expected to provide figures that can pretend to reliability. There is even less logic to a proposal to base evaluation of the purported costs of employee stock options on the spread between the exercise price and the current market price of the stock at the date of exercise, an approach that is wholly indefensible from an economic standpoint.

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**To:** Conference Board Commission on Public Trust

**From:** Andy Grove, Chairman, Intel Corporation

**Re:** Dissenting opinion to commission's study on compensation

**Date:** September 10, 2002

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I am writing to state my disagreement with the commission's recommendation that accounting standards be changed to require that stock options be treated as an expense.

My own views on stock options are well known. Intel believes stock options create value for shareholders<sup>(1)(2)</sup>, and it issues them to virtually all of its employees. We have shared our views publicly, and we have deliberated them comprehensively and successfully with the FASB in the past. I am not writing to convince the commission to adopt the Intel way. This letter focuses on what I believe is most appropriate for the commission.

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- (1) "...incentives derived from employee stock option plans provide value-increasing benefits to the firm.", Lynn Rees and David M. Stott, "The Value-Relevance Of Stock-Based Employee Compensation Disclosures," *The Journal of Applied Business Research*, Volume 17, Number 2, 2001.
- (2) "A considerable body of literature has studied the data to measure whether the net effect of employee stock option grants on a company's stock price is positive or negative. The general finding is that stock prices preponderantly benefit from the issue of employee options." Burton G. Malkiel and William J. Baumol, "Stock Options Keep The Economy Afloat," *The Wall Street Journal*, April 4, 2002

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#### Let's focus on the economic and business issues and fix the abuse

The economic impact of a stock option is dilution.<sup>(3)</sup> Stock options do not alter the overall financial performance of a business but rather reduce each shareholder's portion of that business.<sup>(4)(5)</sup>

Shareholders should be able to easily find and understand information about the potential for dilution of their investments. The solution to this is more and better disclosure.

Shareholders should be able to act to prevent excessive dilution. The solution to this is strong corporate governance—-independent directors, a compensation committee with muscle and backbone, and provisions for shareholder approval.

Expensing options may or may not be good accounting, but as a practical matter it will not be an effective deterrent to abuse. It will create new and significant opportunities for managements to manipulate earnings. The expense is non-cash, and the valuation and timing of the grants are arbitrary. The result is less transparency, less consistency, and more susceptibility to abuse.

The broader issues the commission should be addressing are inequitable distribution of wealth and financial risk, excessive compensation, and misalignment of management and stockholders' interests.<sup>(6)</sup> Most of our recommendations place great confidence in the power of full disclosure and strong corporate governance; I believe we should direct this power at the abusive use of stock options as well.

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- (3) "Dilution arises when a shareholder owns a smaller proportion of the company than before. Economic dilution occurs only when the value of the share they own drops as a result of the issuance of new shares or options.", William A.Sahlman, Dimitri V. D'Arbeloff—MBA Class of 1955 Professor of Business Administration, "Some Thoughts on Accounting for Stock Options," Harvard Business School, July 24, 2002.
- (4) "The value inherent in a stock option, when exercised, is value taken from other shareholders—without that value flowing through the company's books. In other words, their cost is entirely born by the company's shareholders.... The effect of options is accurately reflected in the EPS number—where it belongs." Harvey Golub, "The Real Value of Options", *The Wall Street Journal*, August 8, 2002.
- (5) "This is not to deny that stock options represent a cost. It's just that the cost is borne not by the company but by the existing stockholders in their personal holdings, through dilution. This cost is fully reflected under current accounting standards in the diluted earnings per share figure. Placing an options expense in the numerator of the EPS figure while leaving its effect in the denominator would be a clear case of double-counting...", Fred Sellers, Ph.D., CPA, Associate Professor of Accounting and Chair, Department of Economics and Business, Southwestern University, *The Wall Street Journal*, September 9, 2002.
- (6) "The dramatic rise in CEO compensation has been driven to a large extent by increases in annual stock option grants, which have produced a large buildup in total CEO holdings of stock options." Brian J. Hall and Jeffrey B. Liebman, "Are CEO's Really Paid Like Bureaucrats?" *The Quarterly Journal of Economics*, Vol. CXIII, Issue 3, August 1998.

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#### Let the accountants make accounting decisions

The issue of the accounting treatment of stock options has become an economic Rorschach test onto which people project their basic beliefs about American enterprise, their notions of how companies should be run, how management compensation should be controlled, and their preferences for investments. Unfortunately, this does not encourage a rational discussion of accounting issues.

This commission is not an accounting body. If I read our bios correctly, only one of us is an accountant. As a group, we lack the expertise for such a difficult issue.

This is a subject on which reasonable accountants differ.<sup>(7)</sup> There is a reasonable alternative view that deserves to be heard, and it was not considered by this commission. In contrast, when the Financial Accounting Standards Board ruled on this issue, it first held extensive hearings and deliberations with a range of experts.

The Conference Board seems to have formed an *a priori* opinion. The materials prepared for this commission focused on various financial models that could be used to implement a foregone conclusion of expensing. There was no review of the underlying accounting issues regarding the proper treatment—no discussion for example of dilution, of accounting theory for expenses, or of alternative methods of control such as comprehensive disclosure.

Under no circumstances should we compromise the integrity of accounting decisions.(8) If we as a group of business people decide we can mandate what the accounting should be without exploring the accounting issues, then our assumption and our message to the public is that accounting can be whatever a few elite people want it to be.(9) How does that restore public confidence?

Respectfully,

Andy Grove

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- (7) "Accounting for stock-based compensation is a complex and controversial issue. AcSEC [American Institute of CPAs Accounting Standards Executive Committee] commends the board [Financial Accounting Standards Board] for its thorough and thoughtful study of this issue...opinions may differ on the best answer to the stock-based compensation question." Comment letter to the Financial Accounting Standards Board (FASB) from the American Institute of CPAs Accounting Standards Executive Committee, News Report, *Journal of Accountancy*, (March): 9, 1994.
- (8) "The only thing that I would guide against is the notion of doing what is in essence really the more popular thing and the simpler thing to do, which is 'let's just have an expense', because in fact I think you obscure not elucidate these issues....The most important issue is 'what is the right accounting?'...Accounting does matter. It will have impact." Steven MH Wallman, Former Commissioner of the Securities Exchange Commission, presentation to CalPERS (California Public Retirement Employees System), June 17, 2002.
- (9) "It's apparent that pressure to change accounting for stock options is motivated by political rather than accounting concerns. Those exerting it are well aware that the proposed changes would discourage the use of broad grants of stock options, and this is the result they wish to achieve. These proposals would meddle destructively in a complex financial and entrepreneurial ecosystem." James V. DeLong, "Competitive Enterprise Institute Study: Leave Stock Options Alone," *Accounting Today*, v16 i13 p16(1), July 22, 2002.

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**Intel Corporation**

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January 31, 2003

Ms. Kimberley Crook  
Project Manager  
International Accounting Standards Board  
30 Cannon Street, London EC4M 6XH  
United Kingdom

Dear Ms. Crook

Intel Corporation is pleased to have the opportunity to comment on the Exposure Draft *ED 2—Share-based Payment (the "Exposure Draft")*.

Intel is the world's largest manufacturer of microprocessors and a leading manufacturer of networking and communication products. We attribute much of our success to the alignment of employee and shareholder interests created by our employee stock option program. The investment our shareholders have made in our employees via the stock option program (a long-term average of 2% potential dilution of shareholder interests) has been returned to them in the form of a company that has grown its share price by approximately 850 times from its IPO in 1971. We believe that the true economic cost of our stock option program (that is, dilution of shareholder ownership interests) is transparently reflected in our current financial reports via the earnings per share disclosure. The Exposure Draft would require Intel to impute the fair value of that shareholder cost into our financial statements as an expense in our income statement.

We note that the Exposure Draft's objective is to "ensure that an entity recognizes all share-based payment transactions in its financial statements, measured at fair value, so as to provide high quality, transparent and comparable information to users of financial statements". As a significant beneficiary of the strong capital markets in the U.S., we recognize the critical role that high quality and transparent financial reports play in an effective and efficient capital market system and it is from that perspective that we express our concern about the Exposure Draft's requirement to recognize an expense related to employee stock options (measured at fair value). For the reasons articulated below, we do not believe that requirement would accomplish your stated objective of improving the quality, transparency, and comparability of financial reporting.

We also recognize that the IASB may already be aware of some of the views expressed in this comment letter and note that the IASB has stated it's rational for rejecting those views in the Exposure Draft. We believe that it is worth repeating those views in this comment letter as they continue to be relevant to the overall meaningfulness and usefulness of financial reports and we hope that they will be read in that context. Where relevant, our comments also address the Exposure Draft's stated rational for dismissing certain views.

Our comments are divided into General Comments on the Exposure Draft's proposed recognition and measurement requirements and specific responses to the Questions asked in the Invitation to Comment section of the Exposure Draft (included as Appendix A). Our General Comments are organized into three areas that address the Exposure Draft's stated objectives: Financial Statement Transparency, Financial Statement Comparability, and Financial Statement Quality which we have broken down into Relevance and Reliability.

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## Financial Statement Transparency

The Exposure Draft argues that our financial statements would be more transparent if the fair value of employee stock option grants were included in our income statement. We disagree. In fact, we believe that expensing options would result in a more distorted picture of our actual performance and economic condition.

A transparent reporting of a particular transaction is one that gives a faithful representation of the underlying economic effect of the transaction on the reporting entity. We are not aware of any valid evidence that the grant of an employee stock option constitutes a economic cost to the granting entity (in fact, the empirical literature that we are aware of shows that the issuance of employee stock options normally either has no measurable cost to a granting entity, or actually benefits the entity and its shareholders). When we grant an employee stock option, we do not (and will not) experience an outflow of assets or a decline in asset value as a result of the stock option grant. Imputing an expense into our income statement (as the Exposure Draft would require) would imply that there is an economic cost (i.e.—an incremental cash outflow required) when no such cost (i.e.—no outflow) has or will occur. (In reality, stock option grants generate *incremental* asset inflows (through shareholders' equity) that arise from the proceeds and tax benefit received when they are exercised.) The incremental (non-cash) expense could cause the users our financial statements to reach incorrect conclusions about our operating performance and our prospects for generating future cash flows. That result would not improve the transparency of our financial statements.

The Exposure Draft argues that stock options are part of an employees total pay package and that a reporting entity benefits from the employee services rendered in exchange for the entire pay package. To not reflect the value of the stock option portion of the pay package in the income statement would understate the value of the employee services received. We agree that we benefit from the incremental motivation, commitment and productivity that stock options engender in our employees, but that is not the end of the analysis. The next question is whether those benefits should be recognized in the financial statements at something other than the cash (or other corporate assets) paid (or used up) in exchange for the services rendered. A good test case for this analysis is the scenario where a CEO is paid a nominal cash salary by a corporation. Clearly, the CEO's services are worth more than \$0, but under current accounting, the true value of the CEO's service is not imputed into the reporting entity's income statement. Should the income statement be adjusted to recognize the "fair value" of the CEO's service? The rational underlying the Exposure Draft's conclusions suggest that it should. We disagree. Doing so would not be representative of the reporting entity's operating costs. It would not be transparent.

We also note that the IASB defines a corporate expense as "decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrence of liabilities that result in decreases in equity, other than those relating to distributions to equity participants," and we don't see any of those things happen upon the grant of an employee stock option. Therefore, we conclude that the Exposure Draft's proposed requirement to recognize the fair value of employee stock option grants as an expense in the income statement to be inconsistent with the IASB's conceptual framework. The Exposure Draft acknowledges that observation and goes on to dismiss it on the grounds that the reporting entity actually does incur an expense because services received are "instantaneous assets" that are consumed upon receipt. This notion of an "instantaneous asset" appears to us to be in conflict with the IASB's existing conceptual framework and it strikes us that this line of argument may have been constructed in order to justify the IASB's predetermined conclusion that stock option grants ought to give rise to a corporate expense. If that is in fact the case, we encourage the IASB to first clarify their underlying conceptual principles so that they accommodate such a conclusion.

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We believe that the current earnings per share disclosure (augmented by additional disclosures about the stock option program—see the Relevance section below for further discussion) transparently reflects the economic effect of our stock option grants. Our shareholders are willing to invest a portion of their ownership interest in our employees and expect to be compensated by the incremental value created by an employee base that is motivated by that ownership stake on the principle that a smaller piece of a larger pie is better than a larger piece of a smaller pie. The EPS disclosure transparently conveys the dilutive impact of that ownership transfer. The EPS disclosure combined with certain of the footnote disclosures proposed in the Exposure Draft and certain additional disclosures (discussed below in the Relevance section) would give investors and other users of our financial statements a clear understanding of the nature and extent of our employee stock option program and the ability to assess the potential cost of the program to current and future shareholders.

## Financial Statement Comparability

Some argue that the current accounting for employee stock option grants impairs the comparability of financial statements. An often cited hypothetical example includes two very similar companies (Company A and Company B). The companies are virtually the same except that Company A pays its employees exclusively in cash and Company B pays its employees exclusively in stock options. Company B will appear to be a much more attractive investment even though the two companies, with the exception of the method in which they compensate their employees, are virtually the same. Those that cite this example believe that it illustrates the need to recognize the cost of employee stock options in Company B's income statement to ensure financial statement comparability. We disagree. The income statements of Company A and Company B should not appear the same because Company B will generate much more cash from its operations than Company A. That difference should be transparent in the financial statements, but imputing the hypothetical value of employee stock options into Company B's income statement will make the cash operating costs of the two companies appear similar and cause users of their financial statements to draw incorrect conclusions.

The fact that an investment in Company B will likely be diluted over time as a result of stock option grants to the employees should be transparent to the potential investors. However, the most transparent way to convey that information is not by making Company B's income statement look exactly like Company A's income statement, it is by reflecting the dilution caused by Company B's stock option grants in the earnings per share disclosure.

Also, as more fully discussed in the Reliability section below, the requirement to use an option pricing model to measure the value of an employee stock option will result in highly subjective and potentially unreliable data being recognized in the income statement. The subjectivity of assumptions used in option pricing models will yield diversity in application from one company to the next, thereby, impairing comparability and confusing the users of financial statements.

Our 1997 employee stock option grants illustrate the unreliable fair value measures that result from the use of subjective volatility input variables. In 1997 we used an expected volatility of 36 percent (based on actual historical experience) to estimate the value of our 1997 employee stock option grants for purposes of complying with the FAS 123 disclosure requirement. The actual volatility during the expected life of our 1997 option grants turned out to be 49 percent; 36 percent higher than the expected volatility we used to measure the value of those options. That translates into a \$103 million difference. While one could attempt to mitigate this outcome in the future by adjusting historical volatility based on some expectation of future experience, there is no guarantee that such an adjustment would improve the precision of the fair value estimate. However, the subjective nature of the adjustment would surely guarantee a further divergence in comparability from one company to the next.

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## Financial Statement Quality

### Relevance

We believe that the Exposure Draft's requirement to expense the fair value of an employee stock option would impair the relevance of our financial statements.

Discussions with our investors and other users of our financial statements indicate that they care most about our ability to generate future net cash inflows and that their primary interest in our financial statements is that they accurately depict our ability to do so. We therefore assume that our investors would find financial statement information that has no bearing on our ability to generate future cash flow irrelevant and we would further assume that they would remove such information (assuming it can be easily identified) when analyzing our financial statements. In fact, a recent survey of the "sell side" analysts that cover our stock confirmed that assumption. The survey found that those analysts would not find the inclusion of a stock option related expense in our income statement to be useful information and several analysts indicated that it could impair their ability to accurately assess our performance.

The Exposure Draft's requirement to expense the fair value of employee stock option grants would introduce a charge into our income statement that is not reflective of any past, present, or future cash outflow. The fact that financial statements are prepared for the benefit of investors and other users of financial statements combined with our understanding of the kind of information they find useful causes us to conclude that the Exposure Draft's requirement would impair the overall relevance of financial statements.

As anecdotal evidence, we would add that in the six years since we implemented the fair value disclosure requirements of FAS 123, we have received few questions from investors or analysts about the pro-forma disclosure. The questions we have received resulted from the recent wave of corporate financial reporting scandals (which, in our view, has nothing to do with the accounting for stock options). Given the number of analysts that follow Intel and the relative significance of our stock option program, we would conclude from this that the users of our financial statements do not find the information to be relevant.

What investors and other users of our financial statements do find relevant is additional information to help them assess the impact our stock option program will have on "their piece of the pie" in future periods. We have found that our investors find quarterly disclosures about the philosophy of our program, expected grant levels, actual grants as a percentage of outstanding shares and in-the-money vs. out-of-the money option information, etc. to be useful. To that end, we began disclosing such information on a quarterly basis in the second quarter of 2002. We would encourage the IASB to consider similar disclosure requirements when they redeliberate the Exposure Draft.

#### *Reliability*

The Exposure Draft would require the use of an option-pricing model to measure the fair value of an employee stock option. We believe that approach would result in highly questionable and unreliable financial results.

It is widely acknowledged that existing option valuation techniques (e.g.—Black-Scholes) were developed to value short-lived, freely traded options and never were intended to value longer term, non-transferable employee stock options that are subject to vesting requirements. It is our understanding that option traders put less reliance on option pricing models as the time to expiration increases beyond just six months because of the difficulty in estimating volatility over that longer time frame. To compensate for the inability to reliably estimate volatility beyond six months, option traders will subjectively adjust an option pricing model's results for such things as market liquidity, changes in supply and demand and the level of risk they are willing to take. This problem is further compounded when you move to a 5+ year non-transferable employee stock option and one wonders how the value

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of such options could be measured with any degree of certainty. Yet, the Exposure Draft would require the use of an option-pricing model to measure the fair value of employee stock options.

The Exposure Draft acknowledges the differences between traded options and employee options and proposes (similar to FAS 123) to compensate for those differences by requiring that the expected life of the option, rather than its contractual term, be used as an input into the option-pricing model. While it is clear that the use of expected life rather than contractual life can significantly reduce the fair value estimate of an option, it is a subjective modification of an input variable that only coincidentally could provide a reliable estimate of the effect of the restrictions inherent in employee stock options on their fair value and it does nothing to improve the reliability of the fair value estimate.

For example, we used an expected life of 6.5 years to estimate the fair value of our 2000 employee stock option grants. Because of the significant drop in our share price since 2000 (the average exercise price for 2000 grants is \$54.68 vs. a current market price of approximately \$16.50), the actual life of our 2000 stock option grants will most likely be something very close to the contractual life (if they get exercised at all). The impact of using the 6.5 year expected life versus the 10 year contractual life was an approximate \$1 billion reduction in the measured value of our 2000 grants. This example not only illustrates how dramatically wrong an option pricing model with subjective assumptions can be, but it also illustrates the counterintuitive impact the use of expected life has on the fair value estimate. If we would have had perfect information regarding the expected life of our 2000 grants, we would have ascribed an additional \$1 billion to option grants that most likely will expire worthless.

We realize that estimation is inherent in financial reporting, and that accounting estimates, by their very nature, are imprecise. Lower of cost or market reserve on inventory, allowances for bad debt & pension obligations are examples of the need for subjective estimates in current accounting practice. Ultimately, however, the estimation will be trued up based on an independent cash transaction. On the other hand, the estimated fair value that would be assigned to an employee stock option will never be verified subsequently through an independent transaction. This potential for wide ranges of estimated values with no subsequent true up calls into question the usefulness of the information that would be reported under the Exposure Draft's requirements.

If the IASB retains the Exposure Draft's conclusion that employee stock options should be expensed in the income statement, we believe that cost should be measured based only on the financing cost associated with the option (often times referred to as the minimum value method). The Exposure Draft correctly identifies the two components of an options fair value: intrinsic value and time value. The time value component can be further broken down into the volatility component and the financing component. For a typical "at the money" employee stock option, there is no intrinsic value at the measurement date (i.e.—date of grant) and there is no ability to realize the volatility component of the time value. The only way the volatility component can be realized is by selling the option, but the employee is not permitted to do so. Therefore, the only relevant measure of an employee stock options value is the financing component of the time value

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Thank you for the opportunity to comment on this Exposure Draft. We urge the IASB to consider these comments as it redeliberates share-based payment issues and proceeds to the issuance of a final standard. Please do not hesitate to contact either me (408 765 1444), or John Hertz, Accounting Policy Controller (503 696 7476), with any questions on our comments.

Sincerely,

/s/ ANDY D. BRYANT

Andy D. Bryant  
Executive Vice President

## Appendix A

### Question 1

*Paragraphs 1-3 of the draft IFRS set out the proposed scope of the IFRS. There are no proposed exemptions, apart from for transactions within the scope of another IFRS.*

*Is the proposed scope appropriate? If not, which transactions should be excluded and why?*

Since the IASB is starting with a "clean sheet of paper" we would agree an approach that addresses equity-based compensation on a comprehensive and consistent basis. For reasons previously stated, we believe that comprehensive conclusion should be that any stock transaction that does not give rise to assets or result in the outflow of corporate assets does not result in an expense of the corporation.

While our previous comments and those in reply to the remainder of your questions focus primarily on employee stock options, they similarly apply to all equity grants that do not result in an out-flow of corporate assets.

### Question 2

*Paragraphs 4-6 of the draft IFRS propose requirements for the recognition of share-based payment transactions, including the recognition of an expense when the goods or services received or acquired are consumed.*

*Are these recognition requirements appropriate? If not, why not, or in which circumstances are the recognition requirements inappropriate?*

No, we do not believe that these recognition requirements are appropriate. As noted previously in this response, we do not believe that an equity grant that does not result in an outflow of corporate assets should be recognized as an expense in an entity's income statement. Further, we do not believe that it is possible to reliably measure what that expense would be.

### Question 3

*For an equity-settled share-based payment transaction, the draft IFRS proposes that, in principle, the entity should measure the goods or services received, and the corresponding increase in equity, either directly, at the fair value of the goods or services received, or indirectly, by reference to the fair value of the equity instruments granted, whichever fair value is more readily determinable (paragraph 7). There are no exemptions to the requirement to measure share-based payment transactions at fair value. For example, there are no exemptions for unlisted entities.*

*Is this measurement principle appropriate? If not, why not, or in which circumstances is it not appropriate?*

If one were to attempt to measure the fair value of an employee's service, we would not agree that the fair value of the option is an appropriate measure. If a company were to reward an employee with cash rather than an unvested non-transferable option, the employee would take less cash than the value of the option. Therefore, the value of the option is likely to exceed the amount that would be paid in cash and, accordingly, reflecting the fair value of that option in the income statement will overstate the cost of the employee service.

### Question 4

*If the fair value of the goods or services received in an equity-settled share-based payment transaction is measured directly, the draft IFRS proposes that fair value should be measured at the date when the entity obtains the goods or receives the services (paragraph 8).*

*Do you agree that this is the appropriate date at which to measure the fair value of the goods or services received? If not, at which date should the fair value of the goods or services received be measured? Why?*

A good or service should be measured upon receipt typically by reference to the corporate asset transferred in the exchange.

### Question 5

*If the fair value of the goods or services received in an equity-settled share-based payment transaction is measured by reference to the fair value of the equity instruments granted, the draft IFRS proposes that the fair value of the equity instruments granted should be measured at grant date (paragraph 8).*

*Do you agree that this is the appropriate date at which to measure the fair value of the equity instruments granted? If not, at which date should the fair value of the equity instruments granted be measured? Why?*

We see no need to measure the equity instrument since the transaction should not be recognized in the financial statements (other than by including the potentially dilutive option in the earnings per share calculation).

### Question 6

*For equity-settled transactions with parties other than employees, the draft IFRS proposes a rebuttable presumption that the fair value of the goods or services received is more readily determinable than the fair value of the equity instruments granted (paragraphs 9 and 10).*

*Do you agree that the fair value of the goods or services received is usually more readily determinable than the fair value of the equity instruments granted? In what circumstances is this not so?*

We agree that the fair value of a good or a service received from a third party would usually be more readily determinable than the fair value the equity instrument granted in the exchange transaction.

#### **Question 7**

*For equity-settled transactions with employees, the draft IFRS proposes that the entity should measure the fair value of the employee services received by reference to the fair value of the equity instruments granted, because the latter fair value is more readily determinable (paragraphs 11 and 12).*

*Do you agree that the fair value of the equity instruments granted is more readily determinable than the fair value of the employee services received? Are there any circumstances in which this is not so?*

We do not believe that the fair value of either employee service or a non-transferable equity instrument is readily determinable. Further and as previously stated, we do not believe that an expense in an entity's income statement relating to employee services that do not result in the outflow of a corporate asset would be meaningful information to the users of the financial statements. In fact, we believe it would be misleading. Additionally, we find it inconsistent that the Exposure Draft goes to great lengths to make it clear that the focus is on recognizing and valuing the services received (not the equity instrument) and then prohibits the direct measure of the service while requiring that the equity instrument be measured.

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#### **Question 8**

*Paragraphs 13 and 14 of the draft IFRS propose requirements for determining when the counterparty renders service for the equity instruments granted, based on whether the counterparty is required to complete a specified period of service before the equity instruments vest.*

*Do you agree that it is reasonable to presume that the services rendered by the counterparty as consideration for the equity instruments are received during the vesting period? If not, when are the services received, in your view?*

Option grants are typically awarded 1) in consideration of past performance, 2) to incent future performance and 3) as a retention mechanism. However, we see no reliable way to allocate an options value among those components. Presuming that the "consideration" is entirely related to future service would simplify the accounting, but it also overstates the cost allocated to the future periods.

#### **Question 9**

*If the services received are measured by using the fair value of the equity instruments granted as a surrogate measure, the draft IFRS proposes that the entity should determine the amount to attribute to each unit of service received, by dividing the fair value of the equity instruments granted by the number of units of service expected to be received during the vesting period (paragraph 15).*

*Do you agree that if the fair value of the equity instruments granted is used as a surrogate measure of the fair value of the services received, it is necessary to determine the amount to attribute to each unit of service received? If not, what alternative approach do you propose? If an entity is required to determine the amount to attribute to each unit of service received, do you agree that this should be calculated by dividing the fair value of the equity instruments granted by the number of units of services expected to be received during the vesting period? If not, what alternative method do you propose?*

We believe that this approach would unnecessarily complicate the attribution of the employee service. If the IASB were to require the expensing of employee stock options, we would simply amortize the measured cost over the vesting period.

#### **Question 10**

*In an equity-settled share-based payment transaction, the draft IFRS proposes that having recognised the services received, and a corresponding increase in equity, the entity should make no subsequent adjustment to total equity, even if the equity instruments granted do not vest or, in the case of options, the options are not exercised (paragraph 16). However, this requirement does not preclude the entity from recognising a transfer within equity, ie a transfer from one component of equity to another.*

*Do you agree with this proposed requirement? If not, in what circumstances should an adjustment be made to total equity and why?*

This proposed requirement is consistent with the Exposure Draft's underlying premise that services received should be reflected in the entity's income statement regardless of the consideration (or whether there is any at all). Because we do not believe that services received that do not result in a corporate asset outflow are a corporate expense, we do not agree with this requirement.

#### **Question 11**

*The draft IFRS proposes that the entity should measure the fair value of equity instruments granted, based on market prices if available, taking into account the terms and conditions of the grant (paragraph 17). In the absence of a market price, the draft IFRS proposes that the entity should estimate the fair value of options granted, by applying an option pricing model that takes into account various factors, namely the exercise price of the option, the life of the option, the current price of the underlying*

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*shares, the expected volatility of the share price, the dividends expected on the shares (where appropriate) and the risk-free interest rate for the life of the option (paragraph 20). Paragraph 23 of the proposed IFRS explains when it is appropriate to take into account expected dividends.*

*Do you agree that an option-pricing model should be applied to estimate the fair value of options granted? If not, by what other means should the fair value of the options be estimated? Are there circumstances in which it would be inappropriate or impracticable to take into account any of the factors listed above in applying an option-pricing model?*

We do not aware of an approach that would reliably measure the value of a stock option. Further, the use of option pricing models will ensure that inaccurate and unreliable estimates of the stock options value will erode the quality of the financial statements...Also, as described previously in this response, the only element of pricing model that could be considered relevant to an employee stock option is the financing component.

## Question 12

*If an option is non-transferable, the draft IFRS proposes that the expected life of an option rather than its contracted life should be used in applying an option pricing model (paragraph 21). The draft IFRS also proposes requirements for options that are subject to vesting conditions and therefore cannot be exercised during the vesting period (paragraph 22).*

*Do you agree that replacing an option's contracted life with its expected life when applying an option pricing model is an appropriate means of adjusting the option's fair value for the effects of non-transferability? If not, do you have an alternative suggestion? Is the proposed requirement for taking into account the inability to exercise an option during the vesting period appropriate?*

No, we do not agree that simply replacing an option's contracted life with its expected life is an appropriate means of adjusting the option's fair value for the effects of non-transferability. As described previously in this response, we believe that approach would only coincidentally provide a representative measure of the liquidity discount would do nothing to improve the reliability of the fair value estimate. Further, we are not aware of an alternative approach that would reliably measure the liquidity discount

## Question 13

*If a grant of shares or options is conditional upon satisfying specified vesting conditions, the draft IFRS proposes that these conditions should be taken into account when an entity measures the fair value of the shares or options granted. In the case of options, vesting conditions should be taken into account either by incorporating them into the application of an option pricing model or by making an appropriate adjustment to the value produced by such a model (paragraph 24).*

*Do you agree that vesting conditions should be taken into account when estimating the fair value of options or shares granted? If not, why not? Do you have any suggestions for how vesting conditions should be taken into account when estimating the fair value of shares or options granted?*

Vesting provisions absolutely should be considered if one were to attempt to measure the fair value of an employee stock option. However, we don't believe that there is a reliable way to alter option-pricing models for the vesting terms of employee stock options.

## Question 14

*For options with a reload feature, the draft IFRS proposes that the reload feature should be taken into account, where practicable, when an entity measures the fair value of the options granted. However, if the*

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*reload feature is not taken into account in the measurement of the fair value of the options granted, then the reload option granted should be accounted for as a new option grant (paragraph 25).*

*Is this proposed requirement appropriate? If not, why not? Do you have an alternative proposal for dealing with options with reload features?*

In FAS 123, the FASB concluded that no reasonable method existed to estimate the value added by a reload feature. We are not aware of any improvements in the ability to measure a reload feature since that time and therefore we do not support the proposed requirement to measure the reload feature at grant date.

## Question 15

*The draft IFRS proposes requirements for taking into account various features common to employee share options, such as non-transferability, inability to exercise the option during the vesting period, and vesting conditions (paragraphs 21-25).*

*Are there other common features of employee share options for which the IFRS should specify requirements?*

The most significant common feature of employee stock options is that the employee does not have the ability to monetize the volatility component of the stock options value. It is for this reason that employees would surely take less in cash than the measured value of a stock option. Therefore, the measure of an employee stock option should ignore volatility and consider only its intrinsic value and its financing cost.

## Question 16

*The draft IFRS does not contain prescriptive guidance on the estimation of the fair value of options, consistent with the Board's objective of setting principles-based standards and to allow for future developments in valuation methodologies.*

*Do you agree with this approach? Are there specific aspects of valuing options for which such guidance should be given?*

If the IASB retains the Exposure Draft's conclusion that the fair value of non-transferable employee stock options should be expensed in the income statement, the subjectivity of the option-pricing model inputs will create significant comparability issues and impair the usefulness of financial statements. We would therefore encourage the IASB to mitigate that effect by providing specific guidance on the approach for estimating volatility and the estimated life of the option.

## Question 17

*If an entity reprices a share option, or otherwise modifies the terms or conditions on which equity instruments were granted, the draft IFRS proposes that the entity should measure the incremental value granted upon repricing, and include that incremental value when measuring the services received. This means that the entity is required to recognise additional amounts for services received during the remainder of the vesting period, ie additional to the amounts recognised in respect of the original option grant. Example 3 in Appendix B illustrates this requirement. As shown in that example, the incremental value granted on repricing is treated as a new option grant, in addition to the original option grant. An alternative approach is also illustrated, whereby the two grants are averaged and spread over the remainder of the vesting period.*

*Do you agree that the incremental value granted should be taken into account when measuring the services received, resulting in the recognition of additional amounts in the remainder of the vesting period?*



If not, how do you suggest repricing should be dealt with? Of the two methods illustrated in Example 3, which is more appropriate? Why?

If the IASB retains the Exposure Draft's conclusion that employee stock options should be expensed in the income statement, we would agree with this requirement.

#### Question 18

*If an entity cancels a share or option grant during the vesting period (other than a grant cancelled by forfeiture when the vesting conditions are not satisfied), the draft IFRS proposes that the entity should continue to recognise the services rendered by the counterparty in the remainder of the vesting period, as if that grant had not been cancelled. The draft IFRS also proposes requirements for dealing with any payment made on cancellation and/ or a grant of replacement options, and for the repurchase of vested equity instruments.*

*Are the proposed requirements appropriate? If not, please explain why not and provide details of your suggested alternative approach.*

The requirement to continue recognizing expense during the vesting period, even when the option is cancelled or forfeited, is consistent with the Exposure Draft's underlying premise that services received should be reflected in the entity's income statement regardless of the consideration (or whether there is any at all). However, we do not believe that services received that do not result in a corporate asset outflow are a corporate expense. We therefore do not support this requirement.

On the other hand, we would support the recognition of an expense in the entity's income statement if an entity were to make a cash payment (or any other sacrifice that results in an outflow of corporate assets).

#### Question 19

*For cash-settled share-based payment transactions, the draft IFRS proposes that the entity should measure the goods or services acquired and the liability incurred at the fair value of the liability. Until the liability is settled, the entity should remeasure the fair value of the liability at each reporting date, with any changes in value recognised in the income statement.*

*Are the proposed requirements appropriate? If not, please provide details of your suggested alternative approach.*

We agree with this approach, this transaction will result in the outflow of corporate assets.

#### Question 20

*For share-based payment transactions in which either the entity or the supplier of goods or services may choose whether the entity settles the transaction in cash or by issuing equity instruments, the draft IFRS proposes that the entity should account for the transaction, or the components of that transaction, as a cash-settled share-based payment transaction if the entity has incurred a liability to settle in cash, or as an equity-settled share-based payment transaction if no such liability has been incurred. The draft IFRS proposes various requirements to apply this principle.*

*Are the proposed requirements appropriate? If not, please provide details of your suggested alternative approach.*

If the settlement decision is in the control of the supplier of goods or services, we agree. If the settlement decision is in the control of the entity, we would not recognize expense unless the entity ultimately settles with a company asset. Although, we would measure the liability at intrinsic value as that will be the ultimate measure and would be easier to apply.

#### Question 21

*The draft IFRS proposes that an entity should disclose information to enable users of financial statements to understand:*

- (a) the nature and extent of share-based payment arrangements that existed during the period,*
- (b) how the fair value of the goods or services received, or the fair value of the equity instruments granted, during the period was determined, and*
- (c) the effect of expenses arising from share-based payment transactions on the entity's profit or loss.*

*Are these disclosure requirements appropriate? If not, which disclosure requirements do you suggest should be added, deleted or amended (and how)?*

We agree with item (a). As described previously in this response, we do not believe either item (b) or item (c) is relevant. We do believe that incremental disclosures of significant aspects of an employee stock option program would be useful to investors and other users of financial statements. In that regard, we would recommend disclosure of the following information:

- Description of option programs including dilution goal and approval process
- Distribution and dilutive effect of options
- General option information such as grant amounts, exercise price, in-the-money and out-of-the-money information
- Executive options such as grant amount and as a percentage of total employee grant

#### Question 22

*The draft IFRS proposes that an entity should apply the requirements of the IFRS to grants of equity instruments that were granted after the publication date of this Exposure Draft and had not vested at the effective date of the IFRS. It also proposes that an entity should apply retrospectively the requirements of the IFRS to liabilities existing at the effective date of the IFRS, except that the entity is not required to measure vested share appreciation rights (and similar liabilities) at fair value, but instead should measure such*

liabilities at their settlement amount (ie the amount that would have been paid on settlement of the liability had the counterparty demanded settlement at the date the liability is measured).

Are the proposed requirements appropriate? If not, please provide details of your suggestions for the IFRS's transitional provisions.

If the Exposure Draft were adopted, we would agree with these transition requirements.

### Question 23

The draft IFRS proposes a consequential amendment to IAS 12 (revised 2000) *Income Taxes* to add an example to that standard illustrating how to account for the tax effects of share-based payment transactions. As shown in that example, it is proposed that all tax effects of share-based payment transactions should be recognised in the income statement.

Are the proposed requirements appropriate?

We believe that this requirement will result in the recognition of gains or losses in an entity's income statement relating to changes in the market value of the entity's outstanding equity instruments. This is inconsistent with the IASB's underlying conceptual framework.

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### Question 24

In developing the Exposure Draft, the Board considered how various issues are dealt with under the US standard SFAS 123 *Accounting for Stock-Based Compensation*, as explained further in the Basis for Conclusions. Although the draft IFRS is similar to SFAS 123 in many respects, there are some differences. The main differences include the following.

(a) Apart from transactions within the scope of another IFRS, the draft IFRS does not propose any exemptions, either from the requirement to apply the IFRS or from the requirement to measure share-based payment transactions at fair value. SFAS 123 contains the following exemptions, none of which are included in the draft IFRS:

- employee share purchase plans are excluded from SFAS 123, provided specified criteria are met, such as the discount given to employees is relatively small;
- SFAS 123 encourages, but does not require, entities to apply its fair value measurement method to recognise transactions with employees; entities are permitted to apply instead the intrinsic value measurement method in Accounting Principles Board Opinion No. 25 *Accounting for Stock Issued to Employees* (paragraphs BC70-BC74 in the Basis for Conclusions give an explanation of intrinsic value); and
- unlisted (non-public) entities are permitted to apply the minimum value method when estimating the value of share options, which excludes from the valuation the effects of expected share price volatility (paragraphs BC75-BC78 in the Basis for Conclusions give an explanation of minimum value).

(b) For transactions in which equity instruments are granted to employees, both SFAS 123 and the draft IFRS have a measurement method that is based on the fair value of those equity instruments at grant date. However:

- under SFAS 123, the estimate of the fair value of an equity instrument at grant date is not reduced for the possibility of forfeiture due to failure to satisfy the vesting conditions, whereas the draft IFRS proposes that the possibility of forfeiture should be taken into account in making such an estimate.
- under SFAS 123, the transaction is measured at the fair value of the equity instruments issued. Because equity instruments are not regarded as issued until any specified vesting conditions have been satisfied, the transaction amount is ultimately measured at the number of vested equity instruments multiplied by the fair value of those equity instruments at grant date. Hence, any amounts recognised for employee services received during the vesting period will be subsequently reversed if the equity instruments granted are forfeited. Under the draft IFRS, the transaction is measured at the deemed fair value of the employee services received. The fair value of the equity instruments granted is used as a surrogate measure, to determine the deemed fair value of each unit of employee service received. The transaction amount is ultimately measured at the number of units of service received during the vesting period multiplied by the deemed fair value per unit of service. Hence, any amounts recognised for employee services received are not subsequently reversed, even if the equity instruments granted are forfeited.

(c) If, during the vesting period, an entity settles in cash a grant of equity instruments, under SFAS 123 those equity instruments are regarded as having immediately vested, and therefore the amount of compensation expense measured at grant date but not yet recognised is recognized immediately at the date of settlement. The draft IFRS does not require immediate recognition of an expense but instead proposes that the entity should continue to recognise the services received (and hence the resulting expense) over the remainder of the vesting period, as if that grant of equity instruments had not been cancelled.

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(d) SFAS 123 does not specify a measurement date for transactions with parties other than employees that are measured at the fair value of the equity instruments issued. Emerging Issues Task Force Issue 96-18 *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services* requires the fair value of the equity instruments issued to be measured at the earlier of (i) the date a performance commitment is reached or (ii) the date performance is complete. This date might be later than grant date, for example, if there is no performance commitment at grant date. Under the draft IFRS, the fair value of the equity instruments granted is measured at grant date in all cases.

(e) SFAS 123 requires liabilities for cash-settled share appreciation rights (SARs) to be measured using an intrinsic value measurement method. The draft IFRS proposes that such liabilities should be measured using a fair value measurement method, which includes the time value of the SARs, in the same way that options have time value (refer to paragraphs BC70-BC81 of the Basis for Conclusions for a discussion of intrinsic value, time value and fair value).

(f) For a share-based payment transaction in which equity instruments are granted, SFAS 123 requires realised tax benefits to be credited direct to equity as additional paid-in capital, to the extent that those tax benefits exceed the tax benefits on the total amount of compensation expense recognised in respect of that grant of equity instruments. The draft IFRS, in a consequential amendment to IAS 12 (revised 2000) *Income Taxes*, proposes that all tax effects of share-based payment transactions should be recognised in profit or loss, as part of tax expense.

*For each of the above differences, which treatment is the most appropriate? Why? If you regard neither treatment as appropriate, please provide details of your preferred treatment.*

*(Respondents may wish to note that further details of the differences between the draft IFRS and SFAS 123 are given in the FASB's Invitation to Comment.)*

As previously stated, we do not agree with either FAS123's or the Exposure Draft's fundamental conclusion that employee stock options should be expensed at fair value. As to the specific differences noted in this question, we agree with the Exposure Draft's treatment for the following items:

- Employee stock purchase plans should be included in the scope of any new accounting standard on equity based transactions
- Forfeitures should be considered if one is going to try and value an employee stock option
- That grant date is the appropriate measurement date regardless of whether the grant is to an employee or a non employee
- The fair value measurement of stock appreciation rights

We agree with FAS 123's treatment for the following items:

- The reversal of previously recognize expense relating to forfeited employee stock options
- The treatment of realized tax benefits

We do not agree with either the Exposure Draft of FAS 123's requirement to recognize an expense in the income statement relating to employee stock options; whether under a fair value measurement as proposed and preferred by both the Exposure Draft and FAS 123 or under a intrinsic value measurement as required by FAS 123.

#### **Question 25**

*Do you have any other comments on the Exposure Draft?*

Please refer to our comment summary in the attached letter.

*Article 1 of 3*

#### **Business World: Much Ado About Stock Options**

By Holman W. Jenkins Jr.

04/03/2002

The Wall Street Journal

Page A23

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It turns out that stock prices were wrong for the past 15 years due to an accounting error. Please adjust your retirement expectations accordingly. Sorry for any inconvenience (or poverty) that may result.

This is the message coming from Senators John McCain and Carl Levin, known around Congress as a pair of plodding but reliable accountants. The error, it seems, arises because companies failed to record a "cost" for the stock options lavished on management. Somehow this led investors to overlook a predictable mathematical relationship that arises when shares proliferate due to options grants—each share will be worth proportionally less, all things being equal.

This is called "dilution." But happily Messrs. McCain and Levin, in a fit of Enron-inspired housekeeping, are going to mandate proper accounting for dilution, setting stock prices right.

Of course, it should be added the foregoing is complete nonsense, although it has become a premise of the debate over accounting for corporate stock options. Even Alan Greenspan has flirted with this solecism, though we suspect he didn't mean it.

In the real world, any information, as long as it's deemed relevant, will be processed into the mill for pricing securities. It doesn't matter whether the data is computed into the income statement or appears in a footnote or is shouted up and down Wall Street by a man in a tutu.

Indeed, academic studies have been piling up to show, as you would expect, that the market does in fact recognize dilution. Of particular interest is a recent study by the University of Alberta triumvirate of Mark Huson, Thomas Scott and Heather Wier, who crunch a bunch of numbers and conclude that companies with a large overhang of options respond less strongly to good news than those that don't. Investors seem to anticipate that employees at such companies will be more likely to create dilution by cashing in their options.

Many others have labored productively in this vineyard, including David Aboody at UCLA, Stanford's Mary Barth and Ron Kasznik, the Wharton crew of John Core and Wayne Guay, and MIT's S.P. Kothari. Stock options do indeed have a cost and it's well recognized by the market. So why is this accounting question rapidly becoming the pith and moment of Congress's response to Enronitis?

The amount of spit flying would lead you to believe something real is at stake, but accounting debates are mainly exercises in nomenclature. Listen to Mr. Greenspan, whose speech last week endorsing the accounting change was embraced by congressional reformers and their media choir: "Expensing is only a bookkeeping transaction. Nothing real is changed in the actual operations or cash flow of the corporation."

What's more: "If market participants indeed have been misled, that, in itself, should be surprising, for there is little mystery about the effect of stock-option grants on earnings reported to shareholders."

We won't bore you with the tax proposals that have become entangled with the options controversy. These too would have little real effect, except to cause more checks to fly back and forth between the IRS and companies in response to changing estimates of tax liability. But you pass political

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science with an "A" if you understand why Washington would manufacture an uproar over "nothing real," and why Mr. Greenspan might sign aboard.

The answer lies in recent history. A big fight over accounting for options ensued after the quasi-official agency that oversees accounting rules, known as the Financial Accounting Standards Board, tried to work this fetish on the world eight years ago. Congress got involved, and heeding the demands of CEOs, quashed the idea. Now Congress, in the wake of Enron, needs to be seen doing something that would infuriate CEOs.

Folks who are conversant with reality see this movement for what it is: an effort to make options controversial and accentuate the difference between what CEOs get paid and what the rest of us earn. That may or may not be a heroic political cause, but it's a very bad reason for mandating accounting rule changes.

The one saving grace of our archaic accounting system is that at least it produces some number that can be compared over time. How earnings are derived is less important, ultimately, than whether they are derived in a consistent manner from one quarter to the next. That's why business flips its lid at FASB's ceaseless tweaking of the rules. In part, the trouble arises from the accounting oracle's ideological fixation on cramming as much information as possible into a single quantum, "earnings," much as if this newspaper decided you should get the news in one long story relating everything to everything.

Not that businesses don't have a lot to learn about how to use stock options wisely and well. Why do companies use cash to buy back their own shares to mitigate dilution? This makes no sense unless they consider their shares a bargain—in which case the options-redeeming motive is irrelevant.

Also, studies show that CEOs value their options at a lower price than the market would, because the market is made up of investors who are free to optimize their risk levels where the average CEO has way too much of his wealth wrapped up in a single company. Hence an options-laden CEO may not be enough of a risk taker to suit the average, well-diversified shareholder.

Oh, well. Stock options have gone from being a negligible part of CEO pay to the dominant portion in 15 years, with many foibles and wrong turns exposed along the way. That Enron executives lied to protect the value of their compensation packages is like saying bank robbers rob banks because that's where the money is. You could solve the problem by not keeping money in banks, but a better solution might be to guard the bank more carefully.

Perhaps the dumbest idea is Sen. Joe Lieberman's recent proposal to use tax incentives to encourage companies to give more stock in lieu of pay to lower-downs, who would bear this higher risk without having a meaningful way to influence the share price.

The honorable Connecticut Democrat is trying to live down his past defense of CEO stock options by promoting a "share-the-wealth" philosophy. His plan, though, would load more of a company's risk on employees who already bear enough risk in the form of potential job loss if their company fails. Sad to say, the oft-sensible Mr. Lieberman has become one more victim of Enron neurosis, currently rampant in D.C.

(See related letter: "Letters to the Editor: Don't Make Nasdaq Sweat More Blood"—WSJ April 16, 2002)

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### Business World: Much Ado About Stock Options—Act Two

By Holman W. Jenkins Jr.

1,028 words

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Poor old stock options. Now that Congress has voted on laws to express disapproval of accountants, options are next on the hit list. A new torture is likely to be devised for business: making companies record an expense for stock options awarded to employees. Oh, please. It hurts so bad. Stop. Please.

Only kidding. If the markets have demonstrated anything, it's an understanding that changes in accounting reality are not changes in economic reality. Companies don't spend any cash or agree to spend any cash when issuing options; the charge would be purely cosmetic.

This means that an analyst who wants to understand the profitability of the underlying business will ignore the charge. Likewise, an analyst who wants to understand how options might impact the value of a company's shares will still have to refer to the existing compensation footnotes to learn how many options were issued, to whom and at what price. Voila, nothing really has changed.

So why the screams of agony from Silicon Valley? Clearly the techies protest too much, though not from an urge to engage in accounting fraud, steal from shareholders or commit puppy rape.

Their worry is that, if obliged to take an accounting charge for the options they issue, fledgling businesses wouldn't be allowed to claim profitability in an accounting sense until long after they have become profitable in an economic sense. Start-ups in the technology game in effect capitalize themselves by using options rather than cash to attract skilled employees. The apparent blow to earnings would be larger for these companies than for their more established competitors.

Worse, there's no consensus on how options should be valued and companies would end up trying to spin the accounting in different ways. GE, Coke and Procter & Gamble have all clambered aboard the expensing bandwagon in recent weeks, but it's already obvious they mean different things by it. Coke, for instance, will skip the various proposed mathematical models and solicit bids directly from outsiders as a way to find out what the market would pay for options issued to insiders.

Yet neither Coke's method nor most of the other touted approaches are worth a hoot. All assume that an option granted to an employee is the same as one sold to an outsider. It's not. A company selling an option to an outsider is in effect betting against its own share price. A company granting one to an insider, especially an insider who's in a position to influence the outcome of the bet, is doing something very different.

Fortunately, no law passed by Congress can make investors pay attention to a datum they judge to be irrelevant. That's why Silicon Valley's tizzy is a tad overdone.

Investors did not faint or kill themselves when AOL Time Warner reported a \$54 billion loss—yes, that was a "b"—in April. A rule adopted a few years ago effectively required AOL to run a large chunk of its own stock-price decline through its profit-and-loss statement. Not five investors in a thousand probably know "purchase accounting" from a garden gnome. Yet the market took the charge in stride.

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The lesson is meant to highlight the idiocy of the business press, which has sagely stroked two of its three chins and averred that stock prices must fall if the option-accounting rule is adopted. Why? Because reported profits will be lower!

In fact, studies galore show that stock prices already behave as if investors understand what options cost them in terms of the potential dilution of their ownership stakes. This issue has been fully aired and the proposed rule, if adopted, would have no impact on share prices.

But there's a larger lesson worth noting. The options freak-out is a sterling example of accounting rulemakers going wrong by trying to assign pseudo-precise values to things best left to the market to judge. Jiggering up an artificial expense so options can be reflected on the income statement would be a gesture of no actual help to anybody. Investors would still have to puzzle out their own guessestimate of how a company's incentive policy might affect its future share price.

Finally, we come to "infectious greed," Alan Greenspan's explanation of CEO behavior in the presence of a market that bid shares of certain technology companies to astronomical levels.

It's surely true that various players were quick to cash in on the demand for Internet-related shares—not just CEOs but bankers, venture capitalists and ordinary traders. But even a stupendous options package doesn't confer on a CEO power to sprinkle pixie dust on the markets and induce investors to pay improbable prices for shares. Lord knows, thousands of option-laden CEOs in the old economy sat on the sidelines wondering why their shares weren't liberated from normal reality too.

Warren Buffett believes the failure to expense options has led to pigouts by senior executives, but Mr. Buffett's blindspot is his distaste for speculative businesses whose potential can't be discerned mainly from past performance. Options are used most widely (and most appropriately) by companies in which investors and employees are together taking a flyer on the unknown.

Anyhow, there can't be a topic in Corporate America more widely covered than compensation piggery, the subject of regular surveys in just about every business publication. The idea that expensing is somehow needed to make management pay more controversial, or to inspire more critiques, is a notion from another planet.

Critics can't seem to accept that the pay practices they abhor take place in plain sight and with the implicit tolerance of shareholders. Forget about accounting debates or Capitol Hill. How the rulemaking plays out is less significant than our current symbolic revulsion against risk-taking. The interesting and important question now is whether investors will soon regain their appetite for the daring, go-for-broke, options-fueled business ventures that created so much of the real prosperity of the 1990s.

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## **BUSINESS WORLD**

**By HOLMAN W. JENKINS, JR.**

### **Much Ado About Stock Options—The Epilogue**

Hard to believe anybody still cares, but a large amount of political horsepower continues to be devoted to the question of accounting treatment for management stock options. Yawn, you might respond, but the shamans of the Financial Accounting Standards Board, known to its friends (all two of them) as FASB, are even now steaming toward a rule to require companies to charge an "expense" on their income statements for options awarded to employees. The battle, all agree, is over.

Robert Herz, FASB's new chairman, gives two reasons: The post-Enron fury has prompted many companies to start expensing options on their own and a common methodology is needed. Also, the Europeans are adopting expensing, and convergence with "international" norms has become America's stated goal. In his confirmation hearings, William Donaldson, new head man at the Securities and Exchange Commission, who previously had doubted the logic of expensing, concurred: "Convergence" is the order of the day.

Notice that neither man says we must hurry up and bring about this accounting change because investors are being forced to value stocks without a relevant and clarifying piece of info. Let's admit it: So abstruse, arcane and fundamentally trivial is the accounting issue itself that simple realism should have told us long ago that mere technical considerations were always doomed to be swept aside by the political gales swirling around stock options.

Not to burst anybody's thought bubble, but the accounting issue is utterly unrelated to whether stock options are a good or bad incentive, or whether CEOs are grossly overpaid or tragically underpaid. These are separate questions.

What's more, were the aim really to bring greater clarity and realism to company accounts, *not* enacting the options expensing rule would be considered a good day's work.

Stock options are already an easy mechanism to understand. How they transfer value from existing shareholders, if and when the options are exercised, to the recipient is perfectly straightforward. The expensing proposal is anything but. It involves applying an esoteric mathematical operation to an executive's stock options at the moment they're granted (i.e. before anyone knows whether they will be worth anything), for the sole purpose of whipping up a dubiously meaningful dollar figure that can be deducted from earnings as the "cost" of the options.

This deduction would occur without any of the company's cash having disappeared or become any less available for other purposes. Nor would the deduction either capture or negate the real cost to shareholders if and when the options are exercised down the road. Though lower earnings would have been reported to investors in a prior period as a putative "cost," in no way would investors have been relieved of experiencing the actual cost later when the options are exercised and shareholders' own stake proportionally diluted.

Introducing this perverse mandate can only complicate, on the one hand, figuring out whether a company's underlying business is making money and, on the other hand, whether shareholders are getting their money's worth from the CEO.

On both questions, an analyst would be better off ignoring the deduction.

How we got here at this moment in our political life can be summed up in a word: Enron. But a deeper question is why, of all the things lying at hand to express umbrage at business, this particular proposal has been festering just off-stage for 30 years? The answer does not reflect well on the accounting myrmidons, whose predilection for excessive abstraction reached the point of diminishing returns long ago.

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Hanging around forever has been the expensing proposal because it serves to satisfy an unquenchable fetish to see a contingent liability converted, however clumsily and unconvincingly, into a dollar amount that can be charged against earnings—without (and here's the fetish element) caring in the slightest whether it's helpful or meaningful to do so.

The whole exercise reflects a mindset that, were it able, would try to cram the whole universe of considerations that a savvy investor would deem relevant to a company's prospects, convert them to dollars, then add or subtract them from its income statement or balance sheet. No wonder the expensing question has become the Chauncy Gardner of accounting issues—so impenetrably androgynous that outsiders believe it signifies a great deal more than it does.

Silicon Valley types moan that expensing is a liberal, or worse, a *French*, conspiracy to rob America's economy of its entrepreneurial dynamism. Uh huh. We're here to tell you that accounting rule changes are exercises in renaming things; a rose is still a rose even if it's called Arnold. Thus, if it made sense to dangle large stock options in front of an executive before the accounting change, it will make sense after.

The truly dangerous nuts, however, are those who see the change as a way to correct stock prices that they believe are too high. That is, by rejiggering the definition of "earnings" to force companies to report a smaller number, investors will be led blindly to pay less for shares. This, even though the information being presented to them isn't new, but simply old information repackaged in a new (and confusing) form.

This brings the earnings fetish full circle. Markets are treated as if they respond in Pavlovian fashion to a single quantum, "earnings," regardless of how it is derived, as if they are unable to assimilate any other information properly and therefore must be tricked into "correctly" valuing shares with mandatory adjustments to earnings.

Of course, this is folly, and the market will laugh off the expensing circus with ease. But it is worrisome that such an impulse is loose in the country's politics and media culture, this urge to "fix" stock prices by doctoring the information that companies present to investors.

#### ABOUT THE AUTHOR

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Born in Philadelphia, Mr. Jenkins received a bachelor's degree from Hobart and William Smith Colleges in Geneva, N.Y. He received a master's degree in journalism from Northwestern University in Evanston, Ill., and studied at the University of Michigan on a journalism fellowship.

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Stock Options Keep the Economy Afloat  
By Burton G. Malkiel and William J. Baumol

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The Wall Street Journal  
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The fallout from the Enron accounting scandal includes an invigorated crusade against the use of employee stock options as a method of compensation. Critics see such options as a device to enable managements to cheat their stockholders. Yet, if properly managed and adequately reported, their role is precisely the opposite. They are the prime incentive for management to dedicate itself to the promotion of stockholder interests.

The opposition is growing stronger. Sen. Carl Levin (D., Mich.) has now joined with Sen. John McCain (R., Ariz.) and others to introduce a bill that would require firms to charge the "expense" of stock options against reported earnings. This legislation may erase millions of dollars of corporate profits and push many high-tech companies into the red. That's fine with Warren Buffett, another consistent critic. He puts it this way: "If options aren't a form of compensation, what are they? If compensation isn't an expense, what is it? And, if expenses shouldn't go into the calculation of earnings, where in the world should they go?"

To these critics, employee stock options not only lead to an overstatement of reported corporate earnings, but also, like the shoes in Imelda Marcos's legendary closet, are a powerful symbol of obscene excess. Critics argue that expensing the worth of employee stock options would make their cost more transparent and curb much of the extravagance in employee compensation. We agree that there may have been abuses in their utilization. But we should target the abuses and not undermine this valuable instrument.

The first purpose of employee stock options is to provide a non-cash substitute for part of the wage compensation the firm must provide to attract and retain employees. A new, entrepreneurial firm may not be able to provide the cash compensation needed to attract outstanding workers. Instead, it can offer stock options.

Their second purpose is to mitigate possible divergences between the interests of management and stockholders. As early as the 1930s it was recognized that the modern corporation is characterized by separation between ownership and management. Unlike the minuscule enterprise that is overseen by its proprietor, the large corporation's managers are hired help who, if the arrangements are inappropriate, may choose to pursue their own agenda—e.g., fancy offices or private jets, rather than earnings for the shareowners. Stock options offer a way out of this dilemma, since management benefits only to the extent that the price of the stock rises and shareholder value increases.

In any event, stock options must be recognized as only a redistribution of benefits between initial stockholders and the new, prospective management stockholders. It does not result in any reduction in the overall size of the firm's total earnings pie—it only affects the way in which that pie is sliced and divided up. This is markedly different from the effect of, say, a rise in wages that results in a net reduction in the firm's cash.

Warren Buffett and other critics suggest that the income statement should reflect an "expense" to the firm measured by the cash-equivalent value of the options. There are two problems with this view.

First, even if we were to consider the "expense" of options to be equivalent to that of cash wages, there is no way to measure that "cost"—the value of the options at the time they are issued—with reasonable precision. The Nobel Prize winning Black-Scholes model does an excellent job of predicting the prices at which short-term options trade in the market. But the Black-Scholes formula does not provide reliable estimates for longer-term options, such as those lasting six months to one year, and market prices often differ substantially from predicted values.

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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.

It is possible to adjust the Black-Scholes model for the special features of employee stock options. However, such adjustments use a profusion of variables, many of them difficult to estimate, and they yield a wide range of estimates. One can instead consider "minimum value" accounting—a method suggested by the Financial Accounting Standards Board—to ensure comparability. But it would be very easy for firms to circumvent that approach by altering the features of the option grant to produce a zero minimum option value.

There is an alternative method of accounting that avoids such valuation problems. This approach defines the "cost" as the difference between the market price of the stock and the price paid by the employee on the date the options are exercised. This "cost" can be recorded with precision. But the questionable interpretation of these figures as "costs" is made clear by the perverse results. The better the company does, the more earnings are reduced. In any event, it is not proper to subtract the total value of an equity security, which represents the capitalized value of annual returns, from uncapitalized annual earnings.

The second problem with "expensing" stock options is that they can have both positive and negative effects on share prices. They tend to reduce earnings per share when measured on a "fully diluted basis," but they also can have beneficial incentive effects. A considerable body of economic literature has studied the data to measure whether the net effect of employee stock option grants on a company's stock price is positive or negative. The general finding is that stock prices preponderantly benefit from the issue of employee options. In other words, the market believes that the positive benefits of the options make the "pie" grow faster than the dilutive effect shrinks current shareholders' percentage piece of the "pie."

We do not defend the potential abuses of options—whether by the unwarranted size of some option grants, automatic repricing of options after management failures, or the provision of misinformation intended to inflate stock prices. Independent directors have not always met their responsibilities. And standard options may inappropriately reward mediocre performance during bull markets, when almost all stocks rise.

The solution is to institute performance-based options, but that goose has already been killed by current accounting rules requiring the expensing of such options. But by targeting all stock options rather than stock option abuses, politicians are risking destruction of equity compensation instruments that have been engines of innovation and entrepreneurship.

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(See related letter: "Letters to the Editor: Stock Options: Heads We Win, Tails You Lose"—WSJ April 19, 2002)

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**Expensing Options Solves Nothing**

by **William A. Sahlman**

## Harvard Business Review

[LOGO] December 2002

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**Forcing businesses to include the cost of  
option grants on their income statements sounds nice.  
But it obscures the real problems.**

**Expensing Options  
Solves Nothing**

By William A. Sahlman

The use of stock options for executive compensation has become a lightning rod for public anger in the wake of the series of corporate disasters and frauds reported in the press over the past year. One can easily see why: Top executives at many of yesterday's star companies grew hugely rich on the gains they have made on their options, profits they've been able to keep even as the value these people were supposed to have created disappeared.

What makes the windfalls particularly galling is that it looks as if the system was set up to guarantee executives the money. The supposed scam works like this: Current accounting regulations allow companies to ignore the cost of option grants on their income statements, which means that they can award valuable option packages without affecting reported earnings. Not charging the cost of the grants supposedly leads to overstated earnings. Overstated earnings purportedly translate into unrealistically high share prices, permitting top executives to realize the value of their options purely on the basis of an accounting anomaly.

Presented in this light, the treatment of executive share options in financial reports certainly looks like a scheme to transfer money from shareholders to greedy, undeserving executives, secure in the cover of a booming stock market. And it also seems egregiously simple to fix. If the problem is caused by distortions created when companies don't charge options against income, all you'd have to do is treat executive share options the same way you would any other component of an executive's pay package—as an expense to be written off against the current year's revenues. It's not as if there's any mystery to calculating the value of an option. A widely accepted methodology exists for doing just that: the famous Black-Scholes model. It lets you calculate the value of an option from a few easily estimated inputs: a company's current stock price, the option's exercise price, the time period during which the option can be exercised, the dividend yield, the volatility of the underlying stock, and the level of interest rates.

The great and the good have lined up behind proposals to "expense" options. Corporate behemoths like GE and Coca-Cola have already declared that they will start reporting vested option grants at their estimated Black-Scholes value as an expense each year, and even entrepreneurial upstarts like Amazon have followed suit. The market's guiding lights—Warren Buffett and Alan Greenspan among them—advocate this approach. Academic heavyweights concur, including two of my colleagues at Harvard Business School, Robert Kaplan of Balanced Scorecard fame and Nobel prize winner Robert Merton. Politicians have been quick to jump on the bandwagon; last February, Senator John McCain, the champion of clean government, sponsored a measure to enforce the expensing of executives' options.

Now I'm not about to take issue with those people. When it comes down to it, I don't really care if companies expense their option grants. On balance, I think they shouldn't, particularly if it entails disclosing less information in their footnotes. And I'll show you why in a moment. But what's really driven me to put pen to paper is an altogether different concern: The current focus on the expensing issue is deferring a much broader discussion that politicians, regulators, investors, corporate executives, and accountants need to have.

To begin with, reporting an executive option grant as a cost item on the income statement does not add any information that's not already included in the financial statements. If anything, expensing



options may lead to an even more distorted picture of a company's economic condition and cash flows than financial statements currently paint. More seriously, focusing on the theoretical value of stock options is likely to distract people from thinking more broadly about whether compensation (options or otherwise) does what it's supposed to do—namely, recruit the right people, retain them, and provide appropriate performance incentives.

But what worries me most of all is the likelihood that once laws and regulations are put in place to enforce options expensing, the public will conclude that corporate America's bookkeeping problems have been solved. If that happens, we will have missed a golden opportunity to engage in a serious discussion about the really big problems afflicting corporate accounting.

### **It's Probably in the Footnotes**

Financial Accounting Standards Board regulation 123, introduced in October 1995, already requires companies to disclose data about option grants in the footnotes to their financial statements. A quick look at any publicly traded company's reports shows just what a wealth of information those footnotes provide. Microsoft, for example, reveals in a footnote on pages 36 to 38 of its 10(k) form for 2001 that, by June of that year, 898 million options were outstanding. Of these, 331 million could be exercised; the rest were not yet fully vested. It had authorized but not granted options on a further 550 million shares. During the six years preceding June 30, 2001, it had granted new options on almost 1 billion shares.

The footnote goes on to describe the option terms in some detail. We learn that the weighted average of the exercise prices assigned to the options granted in 2001 was \$60.84, that they expired in ten years, and that the average vesting period was 4.5 years. Microsoft estimates the total value of the options granted in 2001 to have been \$3.4 billion (\$2.3 billion after taxes).

Hence, if Microsoft had expensed the options in 2001, reported net income (before a one-time accounting charge) would have dropped from \$7.7 billion to \$5.5 billion, or almost 30%. Had Microsoft expensed options for the six years ending in June 2001, cumulative net income would have fallen from \$35.1 billion to \$29.6 billion, or slightly less than 16%.

Pundits like Alan Greenspan and Warren Buffett would argue that Microsoft overstated its profitability by failing to include the options charge in its income statement. Investors must therefore have been misled into believing Microsoft was doing better than it really was. But is that really true? Did Microsoft actually earn less? Did investors receive the wrong signal?

To answer these questions, you must take into account a wider range of issues than just the impact of deducting the estimated value of the options from current income. Consider, for example, how the use of stock options affects cash flows. Companies that compensate executives with options, particularly at the senior level, usually don't have to pay as much to recruit them. If management fails to improve performance, then the company's share price will not rise, and the options will not be exercised. In that case, shareholders will be left with the same claim on future cash flows that they had at the outset, but they will have saved the cash they might otherwise have had to spend on recruitment and retention.

In the event that the management team performs well and the options are exercised, the company can expect an inflow of exercise money along with a tax saving. Here's how that works:

Microsoft's 2001 10(k) provides a wealth of details on the actual cash flows arising from the exercise of previously issued options. In that year, employees exercised options on 123 million shares at an average cost to them of \$11.13, representing a total payment to the company of about \$1.4 billion. Since companies can deduct from taxes approximately 35% of the difference between the money that grantees actually paid for the shares at the time they exercised their options and the market value of the shares at that time, we can work out that the total cash inflows from the exercise of those options was \$3.5 billion.

For the six years that ended in June 2001, the positive cash flows from option exercises at Microsoft and their associated tax savings totaled \$20.8 billion.<sup>(1)</sup> What is most interesting, and curious, is that the proposed expensing of Microsoft's options depresses income while increasing cash flows. One must question a policy that keeps the two from rising and falling in tandem.

(1) Now, during that period, Microsoft chose to spend \$20.9 billion to repurchase stock, so the net effect on cash on the balance sheet was neutral. Also, because shares were repurchased at a higher price than shares were sold for under the option program, net shares outstanding increased during the period.

### **What Options Can Do for You**

What investors care about most is their claims on the after-tax cash flows of their company. A grant of stock options potentially transfers to other people, the grantees, some of the claims of existing shareholders on cash flows—that's precisely why options have value. For shareholders to be compensated for that potential loss, the option grant must somehow increase cash flows, on the principle that a smaller piece of a larger pie can be better than a larger piece of a smaller pie. Regardless of the accounting treatment of the cost of options, accountants will have adjusted their estimation of the number of shares outstanding to reflect the likely impact of option grants and exercises.

So where does the increase in cash flows come from? We've already seen how the increased cash flows that option grants generate reduce their cost to shareholders. Those cash flow gains, though, fade into insignificance when compared with the potential benefits that good managers can bring to their company by exercising skill and good judgment. During the six years in which Microsoft handed out the options on approximately 1 billion shares, the total market value of Microsoft increased by slightly over \$300 billion, representing a jump in share price of \$62.00 and a percentage rise of 413%. (In the same period the S&P 500 rose 83%.) Estimated free cash flows per share also increased, from \$0.57 to \$1.27. The reported value of the option grants made (using Black-Scholes) over the six years was \$8.2 billion. The estimated value of all stock options awarded in each of those six years was under 1% of the market value of the company at the beginning of each respective year. (The six-year average was 0.6%.) If you were a shareholder during this time, you would have had precious little basis on which to complain about the compensation of your company's management.<sup>(2)</sup>

(2) For a complete analysis of Microsoft's financial performance between 1986 and 2001, see "Financial Analysis of Microsoft," HBS note #9-803-019.

Indeed, one of the chief arguments advanced for using options at all is precisely that they are an effective way of attracting and retaining the right kind of managerial talent—the kind that will increase earnings and drive up stock prices. Anyone joining Microsoft during most of its history profited handsomely by staying and missed out on significant

appreciation by leaving. It is explicitly because of such outcomes that the management teams venture capitalists assemble for start-ups have been happy to accept lots of options in lieu of cash. People unwilling to accept such a package are shown the door or are not hired in the first place. Those who stay are powerfully motivated to increase their company's value so that they can turn their options into cash. Looked at in this way, options have the earmarks of an investment in the future rather than an operating expense. This is of course one reason that venture capitalists are not in favor of the accounting reforms.

Unfortunately, expensing options by subtracting their full Black-Scholes value from income in the year of the grant does not take into account any of the possible benefits of using stock options as part of a human resource management strategy. Accountants would probably say that because it is difficult to predict many of the future benefits, they prefer to err on the side of caution by ignoring the benefits

and taking the maximum hit. For this reason, the accounting profession has compiled an extensive record of treating many expenditures that have the potential to improve expected performance over the long term as current-period expenses. Examples include spending on R&D and staff training. Although companies make such investments only when they expect them to boost performance, conservative dogma demands that the financial statements recognize only their cost. But, again, such treatment ends up distorting the picture. And that is particularly true of options. At least with line items like R&D, there is a real cash outlay, ensuring that the impact on income is the same as it is on cash flows. But no such outlay is made when companies distribute stock options.

### There's Always Room for More Disclosure

Although I'm not much of a believer in expensing options, I do think there's room for improving the quality of disclosure in the footnotes, especially those appearing in the financial statements of large public companies. Professional investors, it's true, are well placed to interpret detailed financial reports, but retail investors have less access to information and lack the technical expertise to analyze the numbers. To protect retail investors, therefore, I strongly advocate inserting in a dedicated footnote a simple description of the potential impact of the exercise of options on existing ownership. This could take the form of a chart showing how many shares would be outstanding at different future stock prices.

The same disclosure should be made of similar contingent claims on a company's future cash flows. These include shares allocated for earnouts in mergers (that is, the extra payments an acquirer must make if the acquired company crosses certain performance hurdles) and deals struck with customers and suppliers that involve payment of compensation through equity. In short, retail shareholders should be given a simple and comprehensive picture of their future ownership rights under various share price scenarios—a much fuller picture, actually, than reducing the value of option grants to a single number on the income statement would provide.

### Microsoft Versus Enron

It is instructive to compare Microsoft's situation with Enron's, where it appears to some that stock options drove unethical or even illegal behavior. As this table shows, moving the reported value of

options from the footnotes to the financial statements would have had more impact on Microsoft's numbers than on Enron's. Enron's problems ran much deeper than options.

	Microsoft	Enron
Year ended	6/30/2001	12/31/2000
Stock options outstanding*	898	94
Average exercise price for all outstanding options	\$49.54	\$44.24
Annual grant*	224	39
Estimated value of grant*	\$3,377	\$220
Net income pre-options*	\$7,741	\$979
Net income post options*	\$5,459	\$886
Fully diluted shares outstanding*	5,571	814
End-of-period stock market value*	\$393,000	\$67,664
Number of annual option grants as a percentage of total shares	4.0%	4.8%
Number of total options outstanding as a percentage of total shares	16.1%	11.5%
Annual grant value as a percentage of market value	0.9%	0.3%
Reduction in annual net income	(29.5)%	(9.5)%

\* in millions

### The Real Accounting Problem

Whatever the rights and wrongs of footnote disclosure, and whatever the merits of options as a form of compensation, it's certainly a scandal that accounting is so muddled in its treatment of performance-linked compensation, which currently encourages companies to prefer options to potentially more effective methods of equity-linked compensation.

For instance, one problem with most traditional options is that they reward the holders even if the issuer's stock goes up less than its competitors' or its cost of capital goes up more. It seems a little strange to reward people for riding a rising market's coattails, and for that reason many compensation experts advocate using indexed options instead, which tie the exercise price to the level of some benchmark. Yet under current accounting rules, indexed options must be expensed, penalizing income, whereas conventional options, arguably a less effective compensation method, not be.

Another anomaly is the treatment of restricted stock grants, which, like indexed options, also have to be expensed, even though they, too, theoretically deliver more bang for each dollar cost to the company than conventional options do. Unlike options, stock grants afford the employee some downside protection because equity does not expire worthless if the exercise price is not exceeded by the expiration date. Consequently, employees value a dollar's worth of stock more than they do a theoretical dollar's worth of options, which means employers don't have to be as generous with stock grants as with options. Again, it seems perverse to have an accounting treatment that discourages companies from experimenting with a potentially more cost-effective compensation method.

Obviously, expensing options would remove these inconsistencies, but would only create other ones. Consider, for instance, the way many companies treat long-term performance-related cash bonus programs. Under such programs, an executive can earn a cash payout two or three times his or her base salary if the company's reported income increases by more than a given percentage during some time period. At present, companies are required to record an expense for such bonus plans only when it becomes apparent that a payout is likely.

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This method of accounting is very different from that proposed for options, which would impose in the year of the grant the full, multiyear cost of the contingent liability. Yet bonus plans are very similar to options in three crucial respects. First, bonus plans give the recipient a contingent claim on extra payments triggered when certain financial targets are reached, just as an executive with options gets a claim on the company's future cash flows if the shares rise to a certain price (above the exercise price). Second, even though the bonuses do not increase the number of shares outstanding, they do transfer wealth from shareholders to employees because employees have a prior claim on future cash flows. Finally, as with options, bonus plans do not penalize the manager in the event of poor performance (they can only be worthless). Even when the bonus plan seems unlikely to pay out, and no charge to income is deemed appropriate, the right to get the bonus still has value. There is always a chance income will rise fast enough to justify the bonus. The contract has value just as an option has value even when the current stock price is less than the exercise price, as long as there is still time left before expiration. Given those similarities, I have to wonder why no one is proposing a more "conservative" costing of bonuses.

The only reasonable argument for forcing companies to take a current charge for the estimated value of current stock option grants is to put all forms of incentive compensation on similar footing. Then, if they were all accounted for in the same way, the impact on reported earnings would be the same whether at-the-money or performance-indexed stock options were granted or long-term cash payout plans were used. Alternatively, analysts would be equally well informed if all types of contingent compensation were adequately described in the footnotes, including a detailed listing of the underlying assumptions about things like volatility, exercise price or conditions, and duration. No self-respecting analyst would focus solely on reported income and ignore the balance sheets, the cash-flow statement, and the associated footnotes (see the sidebar "There's Always Room for More Disclosure"). The fact that so many analysts failed to do so in the case of WorldCom, Enron, and Adelphia just shows that the problems go far beyond how any particular incentive is accounted for.

The big issue is not the accounting treatment of disclosed managerial decisions but whether those decisions make sense in the first place. Does the compensation program attract the right people? Does it provide incentives to increase long-term value? Does it send the right signals internally and externally? Are adequate controls in place to thwart malfeasance and damaging, self-interested behavior? These are critical questions in today's world.

#### **What Matters More**

It is fascinating to observe pundit after pundit come down strongly on the side of expensing stock options in the reported financial statements, as if that were the silver bullet for combating corporate malfeasance and resolving all our accounting problems. But the proposal under consideration can do no more than palliate public outrage. What we need is a much more comprehensive look at the recent scandals so that we can begin to figure out what the real issues are.

As a start, let's consider one of corporate America's biggest villains: Enron. Certainly the company was liberal with stock option grants, though not as liberal as many others. In fact, expensing options in Enron's accounts would have changed reported profits by only about 10%, whereas the change would have been around 30% for Microsoft, which has received no criticism for its options programs. (A comparison of the two companies' programs is shown in the exhibit "Microsoft Versus Enron.")

The real accounting scandal at Enron had nothing to do with the failure to expense options. Rather, it related to a failure to disclose something else entirely on both the income statement and the balance sheet. Enron had taken advantage of some very liberal (and economically nonsensical) accounting rules that allowed the company to transfer assets and liabilities to certain so-called special purpose entities (SPEs). According to the Powers report, which was published by a special committee of Enron's board after the company entered bankruptcy protection proceedings, Enron's management

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used the SPEs simultaneously to overstate income and understate debt. For example, Enron would sell certain assets to new SPEs, booking a gain on the sale. Then, in quite a few of the transactions, Enron would repurchase the very same assets within months at a slightly higher price. These were not legitimate sales; they were instead short-term, unrecorded loans to Enron. What's more, several of Enron's officers were partners in some of the SPEs. Because these officers had more to gain from their SPE ownership than from their ownership of Enron (an obvious conflict of interest), they might have been tempted to structure transactions that were favorable to the SPE but not to Enron.

Were some of these issues disclosed in Enron's financial statements and related footnotes? Yes, they were, but even the special committee of the Enron board of directors later described the disclosures as "obtuse" and woefully inadequate. A careful and skilled analyst could never have figured out all of the possible problems at Enron from its reported financial statements. In this regard, current accounting for stock options actually serves as a model for disclosure, in some respects. Investors are given lots of information about stock option plans, including some that can help them assign a value to the options granted. In sharp contrast, investors in Enron could not judge the value—on the basis of the information they were given—of the contingent liabilities that Enron had incurred either for itself or for its complex SPEs.

But even much fuller disclosure would not have saved Enron or, for that matter, WorldCom or Adelphia. The failures at those companies were more likely caused by a combination of fraud committed by individuals, inadequate control and governance systems that tolerated clear conflicts of interest, and a frothy market in which analysts failed to do even the simplest reality checks on reported cash flows. Those analysts who took WorldCom's reported income as proof that it was doing well would have come closer to the truth if they had simply calculated free cash flows. Then they would have seen the capital expenditures that the company was reporting falsely in order to conceal the true level of its operating expenses. All the required information was there: It just was ignored by the investment community.

Even if the proposed rules for stock option accounting end up discouraging the use of stock options, the potential for fraud, and grotesquely outsized gains, will not be reduced. Any compensation system that is based on performance has the potential to encourage cheating. Only ethical management, sensible governance, adequate internal control systems, and comprehensive disclosure will protect the investor against disaster.

The tensions in the American business model surrounding the way companies measure and track their performance are much less black-and-white than the popular press would have us believe. The furor over expensing is, if anything, a sideshow distracting us from deeper flaws in accounting standards, compensation philosophy, and professional standards in the financial services industry. If the advocates of expensing win their small point and the spotlight on corporate America fades away as a result, I fear that we will end up having done nothing at all to prevent unscrupulous executives from yet again stealing their investors' money.

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March 25, 2002

Senator Charles E. Schumer  
 United States Senate  
 Washington, DC 20510

Dear Senator Schumer:

*Accounting for Stock Options Issued to Employees*

At the hearing of the Senate Committee on Banking, Housing, and Urban Affairs on Tuesday, February 26, 2002, in response to your question, I said that, for technical accounting reasons, I would not charge expense for stock options issued to employees. I said that I would explain why.

First, I will define a term. The word "expense" means (1) a decline in the value of an owned asset, as for example when an account receivable, which was thought to be collectible, goes bad, or (2) the using up of an owned asset, as for example, using cash to pay for advertising. (Technically, an expense arises when an obligation to transfer assets (to use up assets) arises, for example, on the receipt of goods or services where payment of cash in satisfaction of the obligation is delayed in accordance with normal business terms.)

The Financial Accounting Standards Board, in one of its Concepts Statements, defines assets as "probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events." (That definition is followed by six paragraphs of more than 600 words explaining the definition.) The International Accounting Standards Board's definition of assets is similar to the FASB's in that it is based on "economic benefits." Under that definition of assets, the receipt of services from employees is an economic benefit, and the using up of that economic benefit is an expense. (For FASB mavens, see paragraphs 25-31 of *Statement of Financial Accounting Concepts No. 6*, "Elements of Financial Statements," especially paragraph 31, and paragraph 88 of *Statement of Financial Accounting Standards No. 123*, "Accounting for Stock-Based Compensation.") The value of that economic benefit is hard if not impossible to measure directly, so it is measured indirectly by reference to the cash paid to the employee by the employer, state and Federal taxes paid by the employer on account of the employee/employer relationship, and the cost of medical insurance, maternity leave, child care, vacation, sick leave, and other benefits furnished to the employee by the employer.

Defining assets as probable future economic benefits, as the FASB does, results in an expense on the receipt and use of services from employees in exchange for stock or stock options. The value of the economic benefit received is measured indirectly by reference to the fair value of the stock or stock options issued to the employees. If, as is generally the case, the stock is restricted stock or if restricted options are issued, the measurement of the fair value of the stock or the options generally is done by formula because reference cannot be made to a market price of the stock or option.

So, if you like the FASB's definition of assets, that is, economic benefits, you get an expense when stock or stock options are issued to employees as the FASB recommended in its Statement 123 issued in 1995 unless you think that it results in "double counting," which I will explain later on.

I do not like the FASB's and IASB's definition of assets; "economic benefits" is too ambiguous, amorphous, and indeterminate. It is not workable. Only FASB and IASB accountants know what the term "economic benefits" means, but they cannot explain the term in words that ordinary folk and investors and creditors understand. When I was on staff at the Securities and Exchange Commission as Chief Accountant and as Chief Accountant of the Commission's Division of Enforcement, I found "economic benefits" to be so pliable that almost any expenditure, cost, or debit can be said to qualify as an asset, or at least so it is asserted by registrants and their auditors, lawyers, and expert witnesses when challenged by the Commission's staff or the Commission itself, either informally or in court. (For

proof, I can show you the court filings by respondents and their very distinguished expert witnesses.) Moreover, using that definition of assets allows junk—rusty junk—to get onto corporate balance sheets—junk that cannot be sold to anyone and therefore has no market value whatsoever—for example, goodwill, deferred income taxes, income tax benefits of operating loss carryforwards, development costs, direct-response advertising costs, debt issue costs, and capitalized interest cost said to relate to the acquisition of fixed assets. The FASB and IASB say that junk has probable future economic benefits. I say nonsense. That junk does not and cannot earn a penny. When it comes time to pay bills or make contributions to employees' pension plans, that junk is worthless. Showing that junk as assets allows stock prices to soar when the corporate balance sheet is bloated with hot air.

In my accounting model, which I have recommended to the FASB and IASB, I define assets as follows: CASH, claims to CASH (for example, accounts and notes receivable), and things that can be sold for CASH (for example, securities, inventory, trucks, buildings, oil and gas reserves, and patents). Ordinary folk and investors and creditors understand my definition of assets. Nothing ambiguous about it. There are not rusty junk assets on balance sheets prepared using my definition of assets. And, when assets, as I define assets (and liabilities, as I define liabilities), are shown on corporate balance sheets at their market prices as I have recommended to the FASB and IASB, the balance sheet presents the corporation's true economic financial condition, not financial position that is determined by reference to the FASB's mountain of rules and formulas for computing or determining asset and liability amounts, the result of which is not understandable by investors, creditors, and other users of financial statements.

In my accounting, I do not get an expense for the issuance of stock options (or stock for that matter) to employees in return for their services. No asset, as I define assets, is used up and no asset, as I define assets, declines in value as the result of the issuance of a stock option—thus, no expense. I will use a simplified example to explain why no corporate expense arises on the issuance of a stock option to employees or on the vesting or exercise of the option. For simplicity, I use stock instead of stock options, but the result is exactly the same as if I had used options.

*Year 1.* Assume that on Day 1 of Year 1, all 100 US Senators form the Senate Investment Club (hereinafter, "SIC"), and each Senator contributes \$100 cash for a total of \$10,000 in exchange for 100 shares of SIC for a total of 10,000 shares. During the 250 business days of Year 1, each Senator takes her/his turn at the wheel managing SIC for 2.5 days, making investment decisions, collecting cash dividends and interest, and reinvesting the cash. At the end of Year 1, the combination of cash dividends and interest and increases in the market value of SIC's stocks and bonds brings total assets to \$10,900.

Assume that a professional investment manager would charge 1% of average assets to manage a mutual fund such as SIC. Question: Should SIC have a charge to expense of \$105 ( $10,000 + 10,900 = 20,900 \times .5 = 10,450 \times .01 = 105$ ), representing the value of the services contributed by the 100 Senators during the year managing SIC as measured by what an investment manager would have charged, along with a corresponding contribution to capital of \$105? The answer is No. There was no asset, as I define assets, having a value of \$105 that SIC owned during Year 1 that was used up. There was no asset, as I define assets, that SIC owned during Year 1 that declined in value by \$105. Thus, no expense.

*Year 2.* Assume that on Day 1 of Year 2, the 100 Senators decide to hire Warren Buffett to manage SIC for Year 2 and to pay Mr. Buffett, at the end of Year 2, cash equal to 1% of average assets during Year 2. Assume that at the end of Year 2, SIC's assets have increased in value from \$10,900 to \$11,700, before a reduction for the 1% of average assets

(or \$113) paid to Mr. Buffett.

Question: Is the \$113 paid to Mr. Buffett an expense in Year 2? Answer, Yes. An asset—namely cash of \$113—was used up. The using up of an asset is an expense.

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*Year 3.* Assume that on Day 1 of Year 3, Mr. Buffett and the Senators agree that at the end of Year 3, in return for Mr. Buffett's managing SIC for Year 3, each of the Senators will convey to Mr. Buffett one share of the stock of SIC instead of paying Mr. Buffett cash equal to 1% of the average assets of SIC during Year 3. (Or, in the alternative, SIC will issue 100 shares of SIC stock to Mr. Buffett.) Come the end of Year 3, SIC's assets stand at \$15,000, and each Senator conveys to Mr. Buffett one share of stock of SIC. Thus, Mr. Buffett receives SIC stock worth \$150 from all of the Senators at the end of Year 3. Had Mr. Buffett and SIC continued with the 1%-of-average-assets arrangement as in Year 2, SIC would have paid Mr. Buffett cash of \$133 ( $11,700 - 113 = 11,587 + 15,000 = 26,587 \times .5 = 13,294 \times .01 = 133$ ).

Question: In Year 3, should SIC have an expense of \$150, \$133, or zero? If there is an expense of either \$150 or \$133, there is a contribution to capital of like amount. The answer is zero. No asset, as I define assets, of SIC having a value of either \$150 or \$133 was used up during Year 3. No asset, as I define assets, that SIC owned during Year 3 declined in value by either \$150 or \$133. Thus, no expense.

Showing an expense, as would be done using the FASB's and IASB's definition of assets, in either Year 1 or Year 3 is, in my opinion, as if or pro-forma accounting. As if something was done that was not done. As if cash had been paid out. I think that accounting should be based on the facts of what was and what is, not what might have been if something that was not done had been done.

What happened in Year 3 was that 100 Senators had their ownership in SIC reduced by 1% by each conveying one share of stock of SIC to Mr. Buffett. (If SIC had issued 100 shares of SIC stock to Mr. Buffett, exactly the same result would have obtained.) After Year 3, there are 101 owners of SIC. Each of the Senators—in her/his personal income statement for Year 3—has an expense of 1% of \$150, or \$1.50, but SIC has no expense. The expense of the owners of SIC is not imputed to SIC. SIC accounts for its assets and expenses, not its owners' assets and expenses. Some say that the corporation has a cost when stock or options are issued to employees in return for services and that cost must be accounted for. What cost? There is no cost to the corporation. The cost is that of the owners of the corporation as shown in the reduction of their percentage ownership of the corporation.

Remember the definition of an expense: the using up of an asset or the decline in value of an asset. Imputing reductions in 100 owners' (the Senators') interests in SIC to SIC as an expense in Year 3 implies that SIC's stock is an asset of SIC. That is fundamentally wrong. The stock of an entity is never an asset of the entity. Were the stock of an entity an asset of the entity, the entity's assets would be infinite and unlimited. The stock of an entity is an asset of the owners of the entity. How owners of an entity use their ownership interests, or what happens to the value of their ownership interests, does not affect the corporation's assets or the value of those assets. The corporation does not account for its owners' assets or changes in its owners' assets.

The rearrangement of the ownership interests in SIC in Year 3 is exactly what happens when a corporation issues options to employees and the employees exercise the options—there is a rearrangement of the ownership interest of the corporation. But, importantly, no asset of the corporation is used up and no asset of the corporation declines in value when an option is issued or when an option vests or is exercised. Indeed, when an option is exercised, cash equal to the exercise price comes into the corporation.

Importantly, the issuance of a stock option to an employee does not change the market capitalization of the corporation as measured by the market value of the outstanding shares and the value of the outstanding option; any decline in the market value of outstanding shares shifts to the option. Thus, no expense. If there had been a true expense—the using up of an owned asset or the decline in the value of an owned asset—then the market value of the outstanding shares and option should have declined. For example, if the market value of the stocks and bonds owned by SIC declined by 1%, that decline would be an expense of SIC. And, that decline would be reflected—dollar for

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dollar—in the value of the SIC shares held by the Senators. But, if the 100 Senators convey 1% of their shares to Mr. Buffett, or if SIC issues 100 shares to Mr. Buffett, there is no decline in the value of SIC's assets—thus, no expense. And, finally, on the exercise of an option by an employee, that market value of the corporation's outstanding shares should increase by at least the amount of cash that is received by the corporation on the exercise of the option—again, no expense.

Now take a look at the issue of double counting. Although net income in my accounting model is not reduced for an expense equal to the value of stock or stock options issued to employees, the number of shares in the earnings-per-share computation is the same in my model as in the FASB's model. Thus, the dilutive effect of the issuance of options or shares is reflected in the earnings per share. Reducing net income by way of an expense charge for the value of stock or stock options issued to employees—as per FASB methodology—inappropriately counts the effect twice—that is, the corporation's shareholders see net income (the numerator in the earnings per share computation) reduced and the number of shares (the denominator in the earnings per share computation) increased—thus, double counting. I will illustrate using Year 3 above.

	Expense	No Expense
Net income (15,000 - 11,587)	3413	3413
Deduct value of shares issued to Mr. Buffett	(150)**	0
	3263	3413
Number of shares	10,150	10,150
Earnings per share	.3215**	.3363

\*\* The effect of the expense deduction will be more pronounced in situations where the number of stock options (and therefore the value of the stock options) exceeds 1% of outstanding shares as in the SIC example.

Then, if there were a requirement to impute the value of stock options granted to employees to the corporation as an expense, as in Year 3 of SIC above, a further question would arise: What should be done in those cases, as in Year 1 of SIC above, where employee/owners of corporations are paid no cash compensation, or nominal cash compensation, and there is no expense, or nominal expense, in today's income statements for their services? For example, Mr. Buffett of Berkshire Hathaway and Mr. Gates of Microsoft are paid nominal cash salaries by those corporations. Should there be a pro-forma charge to expense in the income statements of those corporations for the true value of Mr. Buffett's and Mr. Gates' services, that is, the "economic benefit," along with a contribution to capital of like amount? My answer is that no amount beyond the cash salaries paid should be charged to expense. If an amount in addition to the cash paid should be charged to expense, that amount would have to be measured directly by reference to the value of the services

of Mr. Buffett and Mr. Gates. What would that amount be—\$25 million? \$50 million? \$100 million? Yet a greater amount? Who would make that measurement? I assume, but do not know, that FASB and IASB would require an expense. I do not know how FASB or IASB would measure the value of those services and thus the expense.

If it would be appropriate to require a charge to expense in the case of an owner/employee being paid little or no cash salary, as in the case of Mr. Buffett and Mr. Gates, what would be done in the obverse case—where owner/employees are being paid more in cash salaries, bonuses, and the like, than they are worth? To be consistent, would there be a requirement to measure directly the true value of their services, that is, the "economic benefit," and charge any excess to capital as a preferential dividend thereby reducing the expense charge that is measured by cash salary, bonus, and the like? Not the way I would do the accounting, but perhaps yes in the FASB's and IASB's accounting.

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My example above—an investment club—is simplified for purpose of illustration. But, exactly the same concepts would apply to a manufacturing company, a service/entertainment company, a high-tech company, or any other company.

I hope this letter is helpful. I will be pleased to elaborate or explain further.

Yours truly,

/s/ WPS

Walter P. Schuetze

CC: Other Members of the Committee on  
Banking, Housing, and Urban Affairs

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**The Best Option**  
By Wick Simmons

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NEW YORK—The debate over how corporate accountants should treat the granting of stock options is coming to a close. Tomorrow, the Financial Accounting Standards Board (FASB) will end the public comment period and craft a final proposal on whether stock options should be treated like any other corporate expense.

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To many investors, this may sound like an arcane debate among accountants. In fact, the stakes are enormous. Stock options have a proven power to transform industries and accelerate national prosperity. But if companies are forced to treat options like salaries or manufacturing costs, many will decide they can't afford to continue this form of potential compensation. To avoid that mistake, we need to remember how companies grow. In the last two decades, entrepreneurs, new companies and ambitious visionaries moved the world's fulcrum to the U.S., motivated largely by stock options. When given the right incentives, our economy roars.

In most of the world, the most skilled engineers, marketers and software developers stay put. (Why leave an established firm to take a chance on a new venture?) But in the U.S., aspiring companies use stock options to attract the best and the brightest. The process has made the U.S. a magnet for human capital and helped perpetuate the cycle of risk-taking, job creation and economic growth.

In the past months of discussions over corporate misconduct, some have raised doubts about systemic integrity and charged that the lure of stock options is a corrupting influence. Those people believe that curtailing their use will promote greater transparency. Nothing could be further from the truth. Expensing options will only serve to further obfuscate a company's financial situation and punish its employees. Far from being an incentive solely benefiting senior executives, nearly 60% of high-tech firms make stock options available all the way down the line.

It's no coincidence that the most dynamic sectors of the American economy are also the ones that use stock options most extensively. Companies like Microsoft and Intel will be the ones that suffer most from the elimination of one of their most effective compensation tools. And what about the thousands of promising companies that no one has heard of yet? Without the ability to attract talent and offer recruits a stake in the company's financial success, the new sprouts may never grow into the next generation of high-tech multinationals.

If these sorts of side effects weren't galling enough to discourage the regulators from such ill-advised efforts on behalf of "transparency," the new stock option accounting will also cost Americans jobs. According to a recent study, eliminating stock options would cut 3.5% off GDP over the next decade—a staggering \$2.3 trillion loss of economic output.

The FASB has a daunting mandate—to help restore confidence in American business. But it must fix what is broken without harming what is not. Stock options are not the problem and expensing them is not a solution.

The key to the U.S.'s unprecedented economic prosperity is a system that recognizes the best talent and ensures that it is always available to the most promising ventures. Sacrificing that competitive advantage for a cosmetic change in accounting rules may appeal to some today, but it will prove to be horribly shortsighted in the years to come.

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Mr. Simmons is chairman and chief executive of the Nasdaq stock market.

(See related letter: "Letters to the Editor: We've Been Down This Weary Path Before"—WSJ Feb. 12, 2003)

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