Accounting for Employee Stock Options as Contingencies

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Abstract

The accounting profession has long attempted to improve the disclosure of compensatory stock option information in financial reporting. While evidence of inconsistent practice has been publicized and acknowledged, suggestions for readjustment center largely around technicalities. The purpose of this article is to: (1) identify the inherent weakness of existing accounting principles on stock options, and (2) propose a new framework to account for employee stock options so that conflicting issues can be resolved in theory as well as in accounting practice.

Introduction

In March 1984, the Financial Accounting Standards Board (FASB) added to its agenda a project dealing with the accounting for employee stock options. However, the Board could not agree on an approach to the valuation of stock options and in 1988 it decided to address the issue in its broader project on distinguishing between debt and equity instruments. Even though the FASB did not resolve the measurement problem, it did conclude that (1) the granting of stock options does result in compensation expense and (2) the measurement of cost should be based on fair value. This article proposes that the framework developed in *SFAS No. 5*, "Accounting for Contingencies," be applied to employee stock options. This approach has the advantage of avoiding the need to identify a stock option pricing model that will measure fair value while reporting the contingent results of stock option plans.

Generally Accepted Accounting Principles

Current GAAP requires that the option plan (1) be classified and (2) that different measurement techniques be applied to fixed and variable plans. Under *ARB No. 43*, the compensation expense for a fixed plan is measured only to the extent the market price of stock exceeds the exercise price of the option at the date of grant. This practice is based on the notion that price changes after the grant date represent speculative investment gains and not compensation expense for services rendered.

ARB No. 43's limited scope (fixed plans only) led to the issuance of *APB Opinion No. 25*, "Accounting for Stock Issued to Employees." Although *APB Opinion No. 25* deals with issues raised by variable performance plans, it does not supersede provisions for fixed option plans set forth in *ARB No. 43*. Under *APB Opinion No. 25*, the exercise date is set as the measurement date for actual compensation; however, it does require that estimates of expense be made at the end of each period. Each end-of-the-period estimate is accompanied by an adjustment of prior estimates of expense. The adjustment is based on a prospective method whereas revised differences between the new estimate and previously recorded amounts are allocated to current and future periods.

The variable performance plans of *APB Opinion No. 25*, which tie employee compensation to market performance, are similar to the stock appreciation right plans employed by many firms. Stock appreciation right plans differ from the earlier variable plans since they distribute share appreciation in the form of cash or stock without requiring the employee to make a cash payment to acquire the right. In accounting for stock appreciation rights, *FASB Interpretation No. 28* modifies the method of accrual in *APB Opinion No. 25* to measure compensation. It entails a catch-up cost be provided prior to the exercise of the right or its expiration. Under this rule, the adjusting entry at the end of any current year of a multi-year service period ensures that the cumulative percentage of the total current estimated compensation is recognized.

The disparity between the accounting for fixed and variable stock option plans exists because of the difference in the use of measurement dates. While it is true that each type of option has its unique features and,

therefore, may be resolved on its own merit, the argument is unconvincing with respect to employee stock options. Stock options are, in substance, contingent claim arrangements. The fundamental symmetry between stock options and contingencies should be accompanied by similar accounting treatment.

Inconsistent Practice

A viable accounting standard derives its authority from its (1) conceptual validity and (2) ability to portray the underlying business reality and economic facts. Failure to meet both tests has serious accounting implications. Unfortunately, accounting standards on employee stock options leave much room for disagreement as to how economic reality is to be reflected. Because the standards employ different measurement dates they report different compensation expense for the same set of economic facts. This can be illustrated by the following two scenarios.

Scenario 1

On January 1, 1987, the hypothetical Wright Industries, Inc. granted an employee the option to buy 1,000 shares of its common stock at $10 per share when the market price also was $10 per share. The option was in effect for two years. The market price of the stock was $11 on December 31, 1987 and $14 on December 31, 1988.

Since information on the number of shares and the exercise price was available on the date of grant, ARB No. 43 applies. Because there was no difference between the market price of the stock, and the exercise price of the option, it is not necessary for Wright to recognize any compensation. Under ARB No. 43, Wright Industries, Inc. will not have to recognize any expense even if the employee exercised the option when the market price was $14 on December 31, 1988.

Scenario 2

On January 1, 1987, Wright Industries, Inc. also granted 1,000 stock appreciation rights, payable in cash, to another employee. The market conditions of Scenario 1 are applicable since the rights are attached to the single class of common stock, issued by Wright.

Under the conditions of this scenario, FASB Interpretation No. 28 is applicable and the company is obligated to report $1,000 as estimated compensation expense in its financial statements of December 31, 1987. If the employee received $4,000 in the form of either cash or stock on December 31, 1988, total actual compensation cost to the company would be $4,000, with $3,000 reported in 1988.

These two scenarios highlight a fundamental conceptual flaw in current generally accepted accounting principles. In each case, the employee received the same economic benefits and assumed identical levels of risk before December 31, 1988. Sound accounting principles should reflect this economic reality and report the same compensation expense for the plans of Scenario 1 and 2.

Nonrecognition of compensation expense is permissible under *ARB No. 43*, even though Wright Industries is likely to claim a tax deduction of $4,000 in 1988.[1] This deduction is allowed under the assumption that Wright gave the employee something worth $14,000 in exchange for $10,000 of cash. To contend that there is no cost to the shareholders who own the company in this case requires that the opportunity cost to the shareholders be ignored.

Some may argue that common stock, by definition, is not an asset of the issuing entity, and therefore using it in exchange for employee service does not result in a cost to the company. Separating the entity from the shareholders is not only a narrow vision of the firm, but a departure from economic reality.

The Measurement Dilemma

At least two reasons can be given to explain why the FASB has not issued an exposure draft or the needed standard on accounting for employee stock options: 1) industry resistance to a standard that would increase the recognition of compensation expense on the financial statements, and 2) the use of fair value as the measurement surrogate for options. The use of stock-based compensation by industry is innovative and complex. Industry has developed variations from the plans that existed at the time *ARB No. 43* and *APB Opinion No. 25* were issued. Under these pronouncements, the recognition of cost in financial statements for the contrived plans is not required. Thus, changes that mandate the increased reporting of compensation expense is bound to evoke dissent. The Board's constituents are determined to keep compensation expense "off the books." Hence, it is reasonable to expect that the deliberative process of the Board will be stalemated by proposals that increase the recognition of the expense associated with stock option plans.

The Board has pursued fair value as the measurement surrogate for options. The fair value of an option consists of two key elements: intrinsic value and time value. Intrinsic value represents the difference between

the exercise price of the option and the market price of the stock on any given date. Its value can be positive or negative. But fair value can only be positive because it represents the ability of the employee to benefit from future stock price appreciation. Time value diminishes to zero on the exercise date since both fair value and intrinsic value are identical.

Currently, the FASB believes that the best good faith estimate of fair value is to be measured through available option pricing models. The Board originally supported the Minimum Value Method but switched to the Black-Scholes Option Pricing Model. According to the Minimum Value Method, compensation is measured as the market value of the stock on the measurement date less the present values of the exercise price and estimated future dividends during the option period. The Black-Scholes Model is more complex because it incorporates probability estimates relating to the future variations in the market price of the stock. With the rejection of the Minimum Value Method, the making of estimates on the fair value of options is removed from traditional accounting measurement techniques. Stochastic estimates have to be made by investment bankers or other outside financial specialists. Thus, accounting for stock compensation becomes not only a presentation of management's expectations but also a "what-if" scenario that management may not necessarily believe will happen. Overly optimistic or pessimistic estimates of stock price changes can result in material misstatements. Whether these misstatements result from honest, but incorrect estimates on the one hand, or deliberate misrepresentations on the other, the outcome is the same--misleading financial reporting and exposure of the reporting firm and the auditor to litigation.

Thus, the need for a realistic measure is clear. While it is easy to criticize the existing practice of defining compensation as intrinsic value, it is hard to accept that option pricing models are viable alternatives. The Minimum Value Method and the Black-Scholes Option Pricing Model do have certain conceptual merits and possess varying degrees of success outside the accounting function. When applied to employee stock options, these professed virtues rapidly disappear. Employee stock options are unlike regular options because they are not transferable. It is reasonable to assert that the value of employee and non-employee stock options should differ, but few accountants would know by exactly how much. For this reason, companies would incur substantial costs to engage outside specialists to perform the periodic valuations of options throughout the vesting period. This is especially troublesome for start-up companies. It is likely that the fair value of options for these companies is minimal. They would, however, be incurring costs just to prove that immaterial and questionable compensation indeed results from their plans.

The Contingency Framework

Some accounting problems in employee stock options are manageable. Other issues, particularly the measurement of the fair value of options, are difficult to resolve. An immediate task should be to follow the original intent of the Board and to correct the inconsistencies in *Opinion No. 25* and related pronouncements. However, the Board's recently expressed preference to use grant date measurement for fixed option plans, and a different date for variable plans does not provide for a consistent measurement of the expense. Inconsistencies in accounting for stock options plagued the Accounting Principles Board and apparently they continue to plague the FASB.

Events must be measurable before they can be recognized. This statement captures, to a great extent, the essence of the difficulty in the measurement of compensation in stock options. It is wishful to think that the measurement of the cost of stock options can be an exact science; rather, the problem should be viewed as relative. In this context, the use of valuation option models is merely one of the alternatives available to measure cost. These models are invalid under conditions where their basic assumptions do not hold.

SFAS No. 5, "Accounting for Contingencies," establishes a series of probability tests that are applied to a certain set of events before identifying the accounting rule for their recognition. Under *SFAS No. 5*, the probability of an event's occurrence takes the form of a continuum with the following range.

--Probable: The future event or events are likely to occur.

--Reasonably Possible: The chance of the future event or events occurring is more than remote but less than likely.

--Remote: The chance of the event or events occurring is slight.

If the chance of occurrence of a future event is "probable" and the amount of loss can reasonably be estimated, *SFAS No. 5* specifies the loss be recognized. The loss is included in the determination of the period's income. In the absence of a precise estimate, but with a reasonably estimated range for the loss, *FASB Interpretation No. 14* requires the minimum amount of the loss

deemed probable be reported. Disclosure of the loss in note form is acceptable only if none of these conditions exists, but there is a "reasonable possibility" that a loss will be incurred.

The need to recognize and disclose compensation expense exists. The principles pertaining to the "contingencies problem" can be applied to measure the expense associated with stock options. Applying the contingency rules to stock options results in reporting criteria as presented in Table 1.

Table 1

Summary of Possible Accounting Rules for Stock Options When SFAS No. 5 Principles Are Applied to Exercise Date Measurement of Both Fixed and Variable Plans

(Measurement Period: From Date of Grant to Date of Exercise)

Recognition or Disclosure*	Necessary Conditions
1. Recognition of Compensation	(a) It is probable that Expense market price will be greater than exercise price.
	(b) The amount can be reasonably measured.
2. Note Disclosure of Compensation	It is reasonably possible that exercise price will equal the market price of options
3. Nondisclosure	It is likely that exercise price will exceed the market price of options.

* Estimation of a range of compensation applies only to variable plans due to the indeterminable number of shares to be issued.

The estimate of the probability that market price will exceed the exercise price for each type of employee stock option being exercised in the future must be made. The estimate is a function of the difference between the exercise price of the options and the future market price of the stock. The process involves the same estimates that are required under *APB Opinion No. 25*. Hence, the fact that compensation hasn't been recognized in the current or previous periods does not preclude the accrual of expense in subsequent periods.

The use of contingencies as an analogy to find an alternative solution to the option pricing problem can be defended on grounds of technical feasibility and conceptual merits. By setting the exercise date as the measurement date, it departs from the current position which designates the date of grant and the date of entitlement as the measurement dates for fixed plans and junior stock arrangements, respectively.

Clearly, all stock options are deferred arrangements implemented to maximize employee commitments. These commitments are obtained, however, at a cost because an option that is exercisable in the future is likely to have value. If exercised in the future, the company is deprived of a determinable amount of cash for its alternative use. Should no option contract exist, the company can sell the designated shares on the exercise date for the going market price. Final settlement of the amount of compensation with an adjustment for all previous estimates captures the full extent of the opportunity cost to the company. Compensation thus measured is more consistent with the concept of comprehensive income and with the layman's understanding of reward and expense. And, above all, it stops evasion of expense through loopholes permitted under present generally accepted accounting principles.

Conclusion

Adherence to current generally accepted accounting

principles applicable to stock options can lead to the understatement of compensation expense in financial statements. In addition, current GAAP treats different types of options with the same economic substance in an inconsistent manner. The FASB has tentatively concluded that these shortcomings can be overcome if compensation cost is measured on the basis of fair value. The Board also believes that periodic compensation costs for options should be charged to expense between the date of grant and exercise, with final measurement to be settled on the date of exercise. However, the Board does not embrace the date of exercise as the exclusive measurement date since the grant date is used for fixed option plans.

At the present time, the Securities Exchange Commission has proposed major reforms that would eventually mandate clearer explanations and disclosures of executive compensation in corporate proxy statements and other SEC filings. Given the SEC's proposed requirements, one would expect that the FASB would address the accounting problems of reporting stock options in corporate financial reports in a timely manner. However, the Board seems unable to extricate itself from the difficult, if not impossible task of measuring compensation through the use of available stock option pricing models. The FASB may be able to solve this technical problem, but it cannot be assumed that the solution will come quickly.

This paper suggests a solution to accounting for employee stock options by treating all option plans as contingencies. Users of financial statements would benefit from this recommendation since it would result in uniform disclosure and recognition of options. In cases involving highly complex and controversial issues, the realistic approach of solving a problem through its manageable parts is typically required. It is with this spirit that an analysis of the problem on employee stock options has been performed, and the suggestion that the contingency framework be applied to the stock option problem.

Suggestions for Future Research

The proposed application of the contingency model in the measurement of employee stock options is necessarily pragmatic and provisional. With the advancement of stock option measurement techniques the proposal suggested in this paper may be revised or replaced. In particular, there is a need for a research effort that will lead to the development of measurement techniques applicable to non-transferable stock options.

Executive compensation in the form of stock options is now under close scrutiny from Congress, the Securities and Exchange Commission, and special interest groups associated with publicly traded corporations. The controversy on executive stock option compensation stems, to a great extent, from its seeming excesses and the lack of disclosure in corporate financial statements. Research studies linking executive performance to incentive programs and the cost of these (incentive) programs will provide valuable information for formulating improved corporate compensation and accounting policies. ❧

*****Endnotes*****

1. The plan must qualify as an "ordinary or non-statutory" arrangement under IRC Section 83 for this to be true. It is most likely that the firm will design the plan to qualify for the deduction.

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