1-1-1987

Accounting for Stock Options: The FASB's Changing Views on Stock Option Valuation

Susan M. Nagel

NORTHERN ILLINOIS UNIVERSITY

ACCOUNTING FOR STOCK OPTIONS: THE FASB'S CHANGING VIEWS ON STOCK OPTION VALUATION

A Report submitted to the
University Honors Program
in Partial Fulfillment of the
Requirements of the Baccalaureate Degree
With University Honors

Department of Accountancy
by
Susan M. Nagel
DeKalb, Illinois
May 1987

Approved: Curtis L. Norton

Department of: Accountancy

Date: March 23, 1987

Finding its way onto nearly every recent Financial Accounting Standards Board's (FASB) agenda, the issue of accounting for stock options is one of the hottest topics being currently debated in the accounting profession. In the recent January, 1987 issue of the Financial Accounting Series, FASB member Robert J. Swieringa reveals the current status which the Financial Accounting Standards Board has tentatively agreed upon concerning the issue of accounting for stock options. It is anticipated that these tentative agreements will lead to a pronouncement, replacing APB Opinion 25 as generally accepted accounting principles.

This research report will examine the current treatment of stock options according to generally accepted accounting principles. The current method will be compared to the proposed method, both in underlying theoretical support and in a hypothetical financial statement comparison, to aid in determining which method leads to more fairly presented financial statements.

STOCK OPTION DEFINED

The first step in determining how to account for stock options is to understand what a stock option is and why it is used in today's business environment. Basically, a stock option gives the holder the right to purchase, at a later date, shares of the company's stock for a stated price. Typically, the stated price is equal to the fair value of the shares at the date the option is granted.

Options are usually granted to company executives as a form of additional compensation. For rapidly emerging companies which are not rich in cash, but which anticipate substantial increases in the value of their stock in future years, a stock option plan is ideal. If, for example, an executive is granted the right to purchase 1,000 shares of the company's stock in five years for $10 per share and the stock increases to $25 per share over those five years, the executive will have received $15,000 additional compensation upon exercise of the option. By granting stock options, the company is able to minimize cash outflows, the executives are often able to defer taxable income, and the executives' performance is usually maximized since it directly affects their compensation.

CURRENT STOCK OPTION ACCOUNTING

Under current accounting pronouncement, total compensation expense is computed on the measurement date. Any price changes which occur after the measurement date are considered to be irrelevant concerning compensation expense and, therefore, are not reported on the income statement. The measurement date is the first date on which both the number of shares the executive is to receive and the option price are known. If, on this date, the exercise price of the option is less than the market value, then compensation expense must be recognized for any difference.

Although compensation expense is recognized on the measurement date, the total compensation expense is not recorded until the employee performs the services for which he is being compensated. Generally, the compensation expense is allocated to the appropriate periods based on a method that is systematic and rational.

Therefore, under the current generally accepted accounting method for stock options the following entries are made to record the compensation plan. The entry to record total compensation expense at the date of grant according to the previous example would be:

(1) Deferred Compensation Expense	15,000	
Paid-in Capital--Stock Options		15,000

The deferred compensation expense would be shown on the balance sheet as a contra account to stockholders' equity. As the compensation is amortized over the life of service, the expense will be recognized and the deferred account will be reduced. If, in the previous example, the service life was three years then the entry to record the amortization would be:

(2) Compensation Expense 5,000
Deferred Compensation 5,000

When the options are exercised, proceeds from the sale of newly issued stock are credited to common stock to the extent of par value and the excess to capital in excess of par value. Additionally, if the stock options expire compensation expense is not adjusted.

INCONSISTENCIES WITH CURRENT GAAP

Great controversy has arisen concerning the current treatment of stock options under APB Opinion No. 25, "Accounting for Stock Issued to Employees." As exemplified above, the compensation cost is fixed at the measurement date and is generally not subject to change even though the compensation received by the employee on the date of exercise is much greater.

The handling of stock options becomes even more confusing and illogical when it is compared to the accounting for stock appreciation rights (SARs). Under the SAR plan, a company would receive the same services from an employee and the employee would receive benefits which are of virtually equal value as those received under a stock option plan. However, SARs are treated according to FASB Interpretation No. 28, "Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans."

Under Interpretation No. 28, the amount of compensation expense is variable, linked to the market value of the of the companies stock up until the time that the employee is granted the stock.[1] Stock appreciation rights allow the employee to receive shares of the company's stock with a value equal to the excess of the market value of the stock on some future date over the award price (which is usually equal to the exercise price in a stock option plan). Interpretation No. 28, issued in 1978, required that a compensation liability be accrued quarterly and that the income statement be charged for the difference in stock market value and SAR stated value, with amortization permitted over the lesser of service or vesting period.

Although these two compensation plans result in nearly identical remuneration, they are treated quite differently and have significantly different impact on earnings. In 1976, according to a survey conducted by the AICPA, only 30 out of 449 companies surveyed reported any compensation expense for their stock option plans.[2] Total compensation for such companies can be quite sizeable, as was the case for the Hospital Corporation of America. Their compensation for 1982 alone totaled $994,000.[3] Considering the material amount of compensation expense under these two situations and the financial statement effects, the FASB must be certain to address these issues to help eliminate such inconsistencies.

WHEN TO MEASURE COMPENSATION EXPENSE

The second step in resolving how to account for stock options is to determine when the total compensation expense should be calculated. This determination should be consistent with the basic definitions of a liability and an expense since these definitions provide the theoretical structure for generally accepted accounting principles.

A liability is defined as "a probable future sacrifice of economic benefits arising from present obligations of a particular entity to transfer assets in the future as a result of past transactions or events."[4] Because of this definition, a stock option can not be considered a liability on the date of grant since uncertainty exists as to which employees will earn the right to exercise the stock options awarded. Instead, stock options should be measured when a company's contractual obligation are certain.

Contractual obligations for stock options become certain on the vesting date; the first date on which an employee is entitled to purchase and retain a stock award. The Financial Accounting Standards Board has tentatively agreed that the vesting date should be used as the date of measurement.

Since the vesting date is the date when the employee has actually completed all of the service requirements, the FASB is tentatively suggesting that all compensation expense be recorded at this point. By definition, expenses are outflows or other incurrences of liabilities during a period from delivering goods or rendering services that constitute the entity's ongoing major operations.[5] The stock option, therefore, represents compensation expense on the date that the employee has actually earned the right to the option and a contractual obligation exists for the company.

VALUING THE STOCK OPTION

Currently under generally accepted accounting principles, total compensation expense is calculated on the measurement date (which is usually the date of grant) and the expense is equal to the difference between the market price of the stock and the exercise price multiplied by the number of shares granted. But, if a company was required to calculate compensation expense on the date of vesting then it may be inappropriate to measure expense in this manner.

Tentatively, the FASB has agreed that the compensation expense should be measured as the difference between fair market value of the stock and the exercise price multiplied by the number of shares vested. This is identical to the current method's measurement but, additionally, the Board has added a stipulation. The value of the stock option under the fair value method can not be less than the value calculated when applying a method entitled the minimum value method.

FAIR VALUE OF STOCK OPTIONS

For stock that is regularly traded in the securities market, the fair value of a stock option can be calculated by simply valuing the option at the difference between the stock's fair market value and the exercise price of the stock option. However, for stocks which are not regularly traded on the open market, the fair value of the stock option must be calculated using exact option-pricing models.

Exact option-pricing models are often complex mathematical calculations which take into account a variety of variables including volatility as a determinate of option value so that the fair value of the option can be estimated. These models tend to be difficult to use and are often subjective since a variety of models can be selected to achieve varying results. Therefore, in establishing new generally accepted accounting principles, the FASB must definitely be cautious in selecting an option-pricing model which will most accurately estimate the fair value of the option.

However, the most accurate option-pricing model still will not always adequately include factors such as nontransferability which result in flaws in the model.

MINIMUM VALUE OF STOCK OPTIONS

Because of the flaws inherent in the fair value method, the minimum value method must be incorporated into the valuation of the stock option on the vesting date. Originally, the FASB had considered using the minimum value as the basis for determining the value of a stock option, especially since it is objectively determinable and easily computable.

Minimum value is calculated using the following factors: (1) current stock price, (2) exercise price, (3) time to expiration, (4) interest rate, and (5) cash dividends. The minimum value is calculated by subtracting the present value of the exercise price and the present value of the dividends from the market price of the stocks. The minimum value method would give an accurate valuation of the stock option except that it ignores the factor of volatility. A stock with higher volatility should reflect a higher option value than one with a lower volatility and, for this reason, the minimum value method alone can not be used to determine the value of a stock option.[6]

To accomodate for the weaknesses in the two methods, a modification of the fair value method is recommended for the valuation of stock options. The stock option should be measured at fair value unless this amount falls below the amount calculated using the minimum value method. By using the modified fair value method, a company will have the best estimate of compensation expense.

To illustrate the previous recommendation assume that a company grants 1,000 options that vest in one year and have a 10-year term. Assume that the market price at the date of grant is $25 per share, the exercise price is also $25 per share, the risk-free rate is 10 percent, and the dividend yield is 5 percent. Also, assume that the market price on the date of vesting is $35 per share.

Market Price, Ps	$ 35.00
Less:	
Present Value of Exercise Price, PV(E)	10.60
Present Value of Dividends, PV(D)	7.20
Minimum Value	52.80

The fair value of the option would be calculated as $10 per share ($35-$25). Since this amount falls below the calculated minimum value, the compensation expense will be determined using the minimum value.

The compensation expense for the 1,000 options on the date of vesting would be $52,800, recorded as follows:

Compensation Expense	52,800	
Additional paid-in capital		52,800

CONCLUSION

Based on the extensive debates within the FASB, it is clear that the standard setting board has concluded that changes must be made to the present generally accepted accounting priciples covering stock options.

To establish accounting principles which are consistent with basic accounting definitions of liabilities and expenses, several changes should be made to the treatment of stock options. The measurement date should be the date of vesting since this is the date when the contractual obligation is certain. The value of the option should be recorded at fair value unless it falls below minimum value.

Although a variety of issues for compensation plans must still be resolved, these recommended changes to the treatment of stock options would help to make the presentation of financial statements more fairly stated. Afterall, fairly presented statements is the Financial Accounting Standards Board's main concern, and the Board has been facing this issue so that the debate can finally be resolved.

BIBLIOGRAPHY

Accounting for Compensation Arrangements in the United States. Arthur Andersen & Co., Chicago, 1983.

Accounting for Options. Arthur Andersen & Co., Chicago, 1986.

"Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans." FASB Interpretation No. 28, Financial Accounting Standards Board, December, 1978.

Beresford, Dennis R. and Mary P. Locatelli. "The Complicated Question of Accounting for Stock Compensation." Corporate Accounting (Summer, 1983). pp. 5-12.

Beresford, Dennis R. and Robert D. Neary. "FASB Seeks Views on Accounting for Stock Compensation." Financial Executive (August, 1984), pg. 12.

"Comments requested by FASB on Accounting for Stock Compensation Plans." Journal of Accountancy (July, 1984), pp. 12-14.

"Determining the Measurement Date for Stock Option, Purchase, and Award Plans Involving Junior Stock." Proposed Interpretation of APB Opinion No. 25-Exposure Draft Financial Accounting Standards Board (April 24, 1984).

"Determining the Measurement Date for Stock Option, Purchase, and Award Plans Involving Junior Stock." FASB Interpretation No. 38, Financial Accounting Standards Board, (August, 1984).

Epstein, Armand E. "Executive Compensation Techniques for Rapidly Emerging Companies." NYU/RIA Conference on Tax Planning for the Individual, Arthur Andersen & Co., (Spring, 1984), pp. 251-75.

Greene, Richard. "Options Are Free, Aren't They?" Forbes (August 26, 1985), pg. 106.

Kieso, Donald E. and Jerry Weygandt. Intermediate Accounting. 4th ed. New York: John Wiley & Sons, 1983.

Krasnoff, Mitchell M. "Watch Out for Those Changes in Accounting for Stock Compensation Plans." Corporate Accounting (Fall, 1984), pp. 50-3.

Larsen, John B. "Accounting for Compensation Plans Involving Certain Rights Granted to Employees." The CPA Journal (November, 1984), pp. 83-4.

"Proposed FASB Technical Bulletin, No. 85-c." Financial Accounting Standards Board (June 28, 1985) pp. 1-10.

Smith, Clifford W. and Jerold L. Zimmerman. "Valuing Employee Stock Option Plans Using Option Pricing Models." Journal of Accounting Research (Autumn, 1976), pp. 357-64.

"Stock Option and Stock Purchase Plans--Diclosure of Accounting Policies." Accounting Trends and Techniques. 40th ed. American Institute of Certified Public Accountants, 1986.

Swieringa, Robert J. "Accounting for Stock Options." Financial Accounting Series, Status Report, Financial Accounting Standards Board (January 20, 1987), pp.6-10.

Thomas, Paula B. and Larry E. Farmer. "Accounting for Stock Options and SARs: The Equality Question." Journal of Accountancy (June, 1984), pp. 92-8.

Wallace, Wanda A. "The Effects of Delays by Accounting Policy-Setters in Reconciling the Accounting Treatment of Stock Options and Stock Appreciation Rights." Financial Reporting (April, 1984), pp. 325-41.