THE EFFECTS ON SHAREHOLDER VALUE OF SHARE-BASED COMPENSATION AWARDS: USING THESE EFFECTS TO DRIVE THE APPROPRIATE ACCOUNTING

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ABSTRACT: Compensation contracts for managers are often award stock through stock options and restricted stock. Other types of contracts award cash amounts based on the price of the stock. Current regulations require different accounting techniques for these two types of awards. This paper shows that these awards have the same effect on shareholder value and argues that they should, therefore, be accounted for in the same manner. The paper recommends a mark-to-market approach that is similar to the accounting mandated for financial derivatives.

KEY WORDS: stock options, stock appreciation rights, option accounting, restricted stock, phantom stock

Companies have developed many ways to reward managers in addition to salaries. Stock options represent one favored technique. Stock appreciation rights (SAR's) and phantom stock awards represent other popular methods. Companies have a two-fold aim when they adopt any of these approaches: (1) to reward managers for their efforts and (2) to provide managers with an incentive to stay with the company. Essentially, companies are using the performance of the company's stock to accomplish both of these goals (Hill and Stevens 2002 and Bernardo and Galvin 1990).

Under any of these plans, the value of the company's stock is what governs both the value received by the manager and the value given up by the company. Unfortunately, despite the similarity in purpose and the similarity in the use of the company's stock, in practice we account for these compensation plans in quite dissimilar ways. Financial Accounting Statement (FAS) 123R ("Accounting for Stock Based Compensation") (FASB, 2004) stipulates how to account for stock options and other stock compensation awards. This pronouncement stipulates that an option pricing model should be used to value the compensation award, and that this value should be allocated to expense over the life of the contract. FASB Interpretation 28 (FASB 1978) ("Accounting for Stock Appreciation Rights and Other Variable Award Plans") stipulates how to account for compensation payments made in cash but based on the price of the stock. This pronouncement directs accountants to estimate the value of the compensation award each period based on the stock price at the end of the period. Unlike how we account for stock options, no pricing model is involved, and the total estimated compensation expense may change each period.

Does this make sense? The purpose of the compensation plans is the same, and the value of the company's stock in either case determines the value of the manager's compensation. The only difference between the plans is the form in which the manager receives the value. Under stock option and restricted stock plans, the manager receives shares while under SAR and phantom stock awards, the manager receives cash in lieu of stock.

This paper agues that since the purpose and nature of stock option, restricted stock, SAR's, and phantom stock plans are all the same, the expense associated with them should be measured in the same way, and their accounting and reporting should follow the same practices. Our thesis is that doing so will add to the transparency, comparability, and relevance of financial statements.

The paper is organized in four parts. The first part discusses the nature of these compensation plans. The second part uses a firm valuation model to show how each of these plans has the same the effect on shareholder value. The equations developed in this section demonstrate that the effect on shareholders is the same no matter how the company structures its management compensation plan. The third part discusses how accountants can measure the expense associated with the various plans and recommends how they should recognize the expense through time. The final part summarizes our argument.

SHARE-BASED COMPENSATION AWARDS

Stock Options: The most publicized compensation arrangement is the stock option. Under this type of plan the manager is granted an option to purchase shares of the company's stock at an established price. The price is

normally set at, or slightly below, the market price of the stock at the date of grant to achieve tax advantaged status for the options. Typically, these options require a service period of two to three years before they can be exercised. If the manager terminates his or her employment before fulfilling the service requirement, the employee forfeits the options. If the employee stays with the company and fulfills the service requirement, he or she may exercise the options at any time prior to their expiration date. This period commonly extends from five to ten years.

Restricted Stock: Restricted stock awards are another type of compensation arrangement using common shares. Under these plans, the company grants the right to buy shares of "restricted" stock to the manager as part of his or her ongoing compensation. Publicly held companies usually set the purchase price of the stock at a nominal amount, oftentimes zero. Unlike the stock option, the holder of restricted stock may vote the shares and receive dividends while they are in restricted status. The company, however, holds the actual shares in escrow until the manager fulfills certain specified employment conditions. Once the shares vest and are transferred to the manager, he or she may be sell the shares like any other equity security. To protect the interests of the existing owners, privately held companies sometimes impose restrictions on transferability by specifying a right of first refusal, i.e., the company has the right to buy the shares if they are offered for sale.

Stock Appreciation Rights: Stock appreciation rights (SAR's) are a type of stock award settled in cash. This type of compensation arrangement has many elements in common with stock options. SAR's have a pre-established "exercise" price, a required service period, and a given time in which the manager can exercise the award. The company may also incorporate performance criteria by adjusting the number of SAR's granted or the SAR's exercise price based on the achievement of specified operating or financial objectives (National Center for Employee Ownership 2005). The major difference between a SAR and a stock option is that the former provides for an outright cash payment to the manager for the difference between the market price and the specified benchmark (or "exercise") price. The stock option, on the other hand, provides the manager with the right to purchase the stock at a set price from the company. The SAR, therefore, involves a cash payment by the company while the stock option involves a cash receipt.

Phantom Stock Plans: Phantom stock awards are similar to restricted stock in that they are designed to provide the recipient with an award equal to the value of the stock at the date of grant plus any appreciation in the stock's value between the date of grant and exercise. The major difference is that the company pays phantom stock awards in cash rather than in shares of the underlying stock. Under a phantom stock plan, the company credits the manager's account with a number of shares of hypothetical stock. There is no exercise price. Any dividends paid while the company holds the "shares" in the accounts are also credited to the manager's account in the form of an equivalent number of shares. At the future exercise date, the company pays the value of the accumulations in cash to the manager. If the manager leaves the company or a change in control

occurs, the company pays the total amount due. Like stock options and SAR's, the accumulation may be contingent upon achieving certain performance goals.

Privately held companies often prefer SAR and phantom stock plans because they involve no transfer of an ownership interest. The company makes all payments in cash. Setting aside performance criteria for the moment, the amount of the cash payment depends on the stock price in the same way as the value of a stock option or restricted stock depends on the stock price. All the plans are, in the terms of the FASB, share-based award plans whose value is a direct function of the stock price. Because they are all the same, we believe companies can use a common measurement model to calculate their value. We discuss this in a later section. The next section relates to how the plans affect the firm and the shareholders. The question is: do they all have the same effect?

EFFECTS ON SHAREHOLDER VALUE OF SHARE-BASED AWARDS

While firms may have designed the plans to achieve different objectives, they all have one thing in common: The transfer of the award results in a decrease in shareholder value. Moreover, the decrease in value increases (or compounds) exponentially over time, i.e., the decrease in value will increase exponentially with the length of time between grant and exercise. It also does not matter whether vesting requires achievement of performance targets or longevity of employment. This section develops these valuation ideas using a commonly accepted earnings capitalization model (Pratt et. al. 1996).

Stock Options and Restricted Stock: First, consider the case of "share-settled obligations" such as stock options and restricted stock plans. When an option is granted the recipient is given the right to purchase stock at a price equal to the market price at the date of grant. Exercise of the option causes the number of shares outstanding to increase, but exercise also increases the amount of the firm's cash. We will consider how these two changes impact the value of shares of existing shareholders in the context of the Gordon growth model, a common earnings capitalization model. This model expresses the value of a share as a function of income (Y), the cost of equity (k), and the growth rate (g).

Most option contracts require the manager to remain employed with the firm for at least two or three years before he or she can exercise them. After the exercise date, the manager has an extended period to exercise the options. A five to ten year period is common. The net result is that there is a long period of time for the options to grow in value. Assuming the firm grows at g and k is unchanged, the value of a share (v_T) at the date of exercise (T) would be:

$$v_T = Y_1 (1+g)^T/(k-g) \quad (1)$$

The decline in the value of a share because of the exercise of outstanding stock options is given by the expression:

$$v^*_T - v_T = bY_0[(1+g)/(k-g) - (1+g)^T/(k-g)] / S_0(1+b) \quad (2)$$

where v^*_T and v_T are the values for a share at time T after and before exercise of the outstanding options. (The derivations of these equations are available from the authors.) The other terms in equation (2) are:

b = percent of shares outstanding granted as options
k = cost of equity capital
g = growth rate in income
Y_0 = income in time 0
S_0 = number of shares outstanding at time 0 before granting stock options.

As long as the growth rate is positive, the term in brackets is negative. Since the denominator is positive, the whole expression is negative. This demonstrates how the shares of existing shareholders decrease in value as the result of the exercise of stock options. In addition, because the negative term in the numerator is raised to the T power, the longer the time to exercise, the greater the decrease in value will be. Finally, the larger the growth rate anticipated, the larger the decline in shareholder value with the exercise of the options.

Restricted stock may be viewed as a special case of a stock option without any exercise price. Therefore, there will be an increase in the number of shares, but no increase in cash to partially offset the negative impact of the restricted shares on the value of the stock held by existing stockholders. The value of a share of stock after the firm has lifted the restriction and issued the restricted stock, $v(R)^*_T$, is:

$$v(R)^*_T = [Y_0(1+g)/(k-g)]/S_0(1+b) \quad (3)$$

The decline in the value of a share as a result of the issuance of the restricted shares is:

$$v(R)^*_T - v_T = -b\,[Y_0(1+g)^T/(k-g)]/S_0(1+b) \quad (4)$$

This equation is the same as equation (2) for stock options, except that there is no term for the offset caused by the cash received from the manager for the exercise price.

SAR's and Phantom Stock: With "cash-settled obligations," such as SAR's and phantom stock, exercise does not result in an increase in the number of shares. The cash payment results in a direct reduction in the value of shares outstanding. Under a SAR, the firm's payment per share (p_T) at exercise at time T is:

$$p_T = [Y_0(1+g)^T/(k-g)]/S_0 - [Y_0(1+g)/(k-g)]/S_0 \quad (5)$$

The resulting decline in value on a per share basis is given by:

$$v^*_T - v_T = \{[bY_0(1+g)/(k-g)] - [bY_0(1+g)^T/(k-g)]\}/S_0 \quad (6)$$

This result is similar to the results for both the stock option and restricted stock. To the extent the growth rate is positive, there will be a decline in shareholder value. Further, this decrease in value is related in a positive and exponential manner to both the time to exercise (T) and the growth rate (g). These effects are the same as those observed in the stock option and restricted stock cases.

Phantom stock is similar to a SAR, except that the firm's payment to the manager will be larger. This is because the firm bases its payment on the value of the stock at time T, and not on just the increase in the value of the shares since the date of grant. In this case the payment, $P(ps)_T$, is:

$$P(ps)_T = \{[Y_0(1+g)^T/(k-g)]/S_0\}bS_0 = bY_0(1+g)^T/(k-g) \quad (7)$$

The decline in the value of the firm's shareholder equity can be expressed as:

$$V(ps)^*_T - V_T = Y_0(1+g)^T/(k-g) - bY_0(1+g)^T/(k-g) - Y_0(1+g)^T/(k-g)$$

$$= bY_0(1+g)^T/(k-g) \quad (8)$$

On a per share basis, the decline in the value of a share is:

$$v(ps)^*_T - v_T = [-bY_0(1+g)^T/(k-g)]/S_0 \quad (9)$$

This expression is similar to the corresponding equation for a SAR, except that there is no offset for the value of a share at the date of grant.

CURRENT ACCOUNTING FOR SHARE BASED COMPENSATION ARRANGEMENTS

Obligations Settled in Shares: Current accounting for share-based award plans depends on whether the firm settles the award by issuing shares or paying cash. FAS 123R mandates that share settled obligations, such as stock options and restricted stock awards, be accounted for at their fair value at the date of grant. The FASB's reasoning is that at the date of grant, the company and the recipient of the award have come to a mutual understanding regarding the values to be exchanged. It is reasonable, therefore, to measure total compensation cost using the fair value of the options. The firm then allocates the total compensation cost to the years of service required for vesting. This procedure is also used for restricted stock awards.

Obligations Settled in Cash: FAS Interpretation 28 specifies that the firm estimate the amount of the obligation at each reporting date using an intrinsic value approach. This approach measures the per unit amount of each obligation as the difference between the market price on the reporting date and the predetermined benchmark price, usually the market price of the stock at the

date of grant. This unit value is then multiplied by the number of SAR or phantom stock units expected to vest to arrive at an estimated total obligation. In this approach, there is no discounting for the time value of money. In addition, the accounting does not use a pricing model used to estimate the fair value of the contract.

The amount of cost assigned to each period benefited is computed using a prospective approach. Under this approach the portion of this total estimated cost earned to date is first calculated. The amount of this cost assigned to the current period is simply the difference between this estimate at the end period and the same estimate made at the beginning of a period. Performance criteria can be incorporated by specifying the number of units expected to vest as a function of the attainment of specified performance objectives. Any change in vesting expectations affects only the estimated total cost at the end of the current period.

RECOMMENDATIONS FOR THE VALUATION AND ACCOUNTING OF SHARE-BASED AWARDS

Valuing the Share-Based Obligation: The only real difference between cash-settled and share-settled obligations is the form of payment to the manager. The value of both types of awards depends on the stock price, and both have vesting periods. Both types have a negative effect on shareholder value. Finally, both have the equivalent of an exercise price. In the case of stock options, the exercise price is the amount the manager pays for the stock when he purchases it from the company. For SAR's, the price of the stock at the date of grant represents the benchmark (or exercise) price. For each SAR, the amount of the cash received by the manager is equal to the difference between the current price of the stock and the benchmark price. Like stock options, the value of the SAR at exercise is the amount by which the stock price exceeds the benchmark price. For restricted stock and phantom stock, the exercise price is zero. The manager receives the full value of the stock either as a grant of the stock itself or as a cash payment equal to the value of the stock.

Since the award plans are essentially the same, it makes sense that the same valuation model would be used to value total compensation expense for any of these plans. Why measure the same things differently?

The value of these plans derives from two sources. The first source is its intrinsic value, which is the difference between the current market price of the stock and the exercise price. (This value, as mentioned earlier, is the only value recognized in the current accounting for SAR's and phantom stock awards.) The second source of value is the "time value" of the option. The time value comes from possibility that the stock price will rise beyond its current price in the future, thereby increasing the intrinsic value in this future time period. The value of stock option, restricted stock, SAR, or phantom stock awards comes from <u>both</u> of these sources, i.e., each type of award will have an intrinsic value and a time value. Viewed this way, the appropriate valuation model to use is an option-pricing model, like Black-Sholes. The Black-Sholes calculation incorporates both intrinsic value and time value considerations. The six variables of Black-Sholes are:

- the current stock price,

- the exercise price,
- the current dividend yield,
- the time to expiration of the award,
- the volatility of the stock price as measured by its standard deviation, and
- the risk-free interest rate.

All these terms are available from either the award contract or market data. With values for these six terms, and with one of the readily available option pricing computer programs, it is a straightforward task to calculate the compensation cost of any of the share-based award plans.

Accounting for the Share-Based Obligation: Two issues govern the accounting for these variable plans. The first, how to estimate their cost, was just discussed. The second is how to assign this cost to income over time. As previously noted, there are two ways to account for share-based compensation depending on the method of settlement. However, neither of the existing accounting methods fully captures the effect of the compensation instrument on shareholder value. First, consider the problems with the state of current accounting for share-settled obligations, such as stock options. FAS 123R requires companies to recognize the total cost using an option pricing model. As just discussed, these models calculate the cost of an option by considering both its intrinsic value and its time value. The company calculates the total cost at the date of the grant and then allocates this amount to income over the vesting period. While this is a substantial improvement over the intrinsic value approach of APB No. 25, the accounting fails to recognize the dynamic component of options. The value of the option, and hence the cost to the company, changes each period. Under FAS 123R, the total cost of the option is measured once, at the date of the grant, and it completely neglects changes in the value of the option through time.

Cash-settled obligations follow a different tack. When a firm issues a share-settled obligation, such as a SAR, the employees must earn the right to exercise it by working for the company between the date of grant and the date of vesting. FASB Interpretation 28 recognizes the changing value of the award. For any SAR, the interpretation requires that the expense for any period is the difference between the end-of-period stock price and the exercise price (adjusted for the proportion of the service period completed) minus any expense for the SAR recorded in previous periods.

This approach uses the stock price alone to measure compensation, i.e., if the end-of-period stock price is above the exercise price, the company recognizes compensation expense. If the end-of-period stock price is below the exercise price, the company recognizes no compensation cost. The advantage of this measurement technique is that it relies solely on an objective measure (the price of the stock) and does not use subjective estimates. The problem is that this approach ignores the time value of the obligation, i.e., the value implicit in the obligation because of the possibility that the future stock price may increase more than it has already over the exercise price. As such, the company will significantly understate compensation expense in the early years of the award when most of the contract's value derives from its time value.

To better understand the various accounting methods and their relationship to value changes, a closer examination of the determinants of the value of a share-based payment is necessary. The value of the obligation created is derived from two sources. The first source is its intrinsic value, which is the difference between the market price and the exercise price. The obligation's value is at least this amount, because the holder of the obligation could opt for the cash settlement, i.e., exercise the option, sell the stock, and realize a gain. The second source of value is the opportunity to wait and experience an even larger pay-off later. This is the time value, and it must have value, because if it didn't, the recipient would exercise it immediately. For share-settled obligations, the original intrinsic value method of APB 25 only recognized the first source of value, and that was measured only once at the date of grant. The valuation of cash-settled obligations also recognized only the first source of value, although it was re-measured over time. The FASB's fair value approach for share-settled obligations, which utilizes an option-pricing model, is an improvement. It attempts to capture both sources of value but only at a single point in time, the grant date.

So the accounting for options considers both intrinsic and time values but it ignores the changes in their value over time. The accounting for cash-settled awards recognizes changes in the value of the award over time but only considers the intrinsic value of the contract. Is there some approach that captures the benefits of each but avoids their flaws?

Hybrid Mark-to-Market Approach: We believe that a reasonable hybrid approach would be to use a Black-Scholes model (or another option valuation method) on an iterative basis to measure the value of the obligation each period throughout the required service period. This would provide updated estimates each period of the total cost to the firm of its share-based compensation contracts, and it would consider both the intrinsic and time values of the awards. The approach views the obligation as consisting of two parts. The first part is the value of the original obligation when the company first granted the award. The second part is a type of futures contract whose value will change over time. This approach accounts for each part separately.

An award contract encompasses two distinct transactions. The first transaction is the decision to reward the manager with a particular value. The value of the reward, whether it is the form of future cash or shares, is reached at the date of the grant via an option-pricing model. In a manner analogous to FAS 123R, this value represents total compensation expense, and the company would recognize the expense ratably over the service period. However, by using a share-based award as the means of payment, the company has entered into a type of forward contract. This is the second part of the award transaction. The firm has agreed to deliver shares or an amount of cash based on the value of the shares at some future date.

This latter part of the transaction constitutes a form of a financial derivative. According to FAS 133 (FASB 1998) "Accounting for Derivative Instruments and Hedging Activities," a derivative security is an instrument that has one or more "underlying," a market-related value that determines ultimate payment and an identified payment mechanism. The derivative instrument also requires little investment at its inception. By promising to deliver shares at a

specified price in the future, or an amount of cash derived from a specified price, the share-based contract establishes the underlying and the payment mechanism. Also, by requiring no payment other than service, the manager and the company acquire the forward contract with little investment. FAS 133 requires derivative security contracts to be "marked to market" each period and, as values change, gains and losses are recognized. From the standpoint of the company, these gains and losses represent the cost to the company for bearing the uncertainty associated with the issuance of a share-based compensation award, instead of paying an amount of cash to the employee equal to the value of the contract at the date of grant.

Applying the hybrid model in the context of a mark-to-market approach calculates this gain or loss by comparing the value of the share-based award at the beginning of the period with the value at the end of the period. So two elements would be reported: basic compensation expense based on the initial value of the contract, and gains and losses associated with changes in the contract's value through time. In notation, compensation expense in period n (CE_n) can be represented as:

$$CE_n = E_n O_g \quad (10)$$

Where E_n is the proportion of the service requirement rendered in period n, and O_g is the value of the share-based award at the date of grant. The gains and losses in period n (G/L_n) on the share-based contract can be expressed as:

$$G/L_n = O_n - O_{n-1} \quad (11)$$

Where O_n represent the value of the share-based award at the date of the grant and at the end of period n.

An Example: Table I presents the different compensation expense amounts calculated using current accounting for share-settled and cash-settled obligations. The table also presents compensation expense amounts for the hybrid mark-to-market approach presented in the paper. The illustration assumes the company grants a single award with a required service period of three years, and that expiration and exercise occur at the end of year four. The table assumes the share prices and the award values as shown.

Table 1: Compensation Expense and Gains and Losses Under Current Expense Recognition Approaches and a Mark-to-Market Approach

Date	Stock Price	Exer-cise Price	Value Of Award	Expense With Share-Settled Oblig-ations	Expense with Cash-Settled Oblig-ations	Expense With Mark-To-Market	Gain / (Loss) with Mark-To-Market
1/1/x1	30	30	9				
12/31/x1	33	30	12	3	1	3	3
12/31/x2	39	30	15	3	3	3	3
12/31/x3	45	30	21	3	11	3	6
12/31/x4	54	30	24	3	9		3
Total				12	24	9	15

The fifth and sixth columns of the table provide the expense measures that current accounting pronouncements would require for share-settled and cash-settled awards. FAS 123R governs the share-settled awards while Interpretation 28 specifies the expense for the cash-settled awards. The share-settled expense amounts are fixed once the stock option or phantom stock contracts are valued. They do not change as the value of the award changes. Following Interpretation 28, the expense recognized each year for the cash-settled awards is variable, and reflects changes in the estimate of the value transferred to the recipient at exercise.

The alternative hybrid approach uses the value of the stock price on an ongoing basis. The expense is revised on a prospective basis at the end of each period, and reflects the latest estimate of the value of the award to the recipient at the end of each period. The measurement of the value of the award at the end of each period captures both the time value and intrinsic value of the contract.

CONCLUSION

This paper uses an earnings capitalization model to show that share-settled and cash-settled obligations all have a negative effect on the value of the firm. The only difference is in the degree of the negative effect. Since the effects are the same, and the final award of all the plans depends on the stock

price at the settlement date, firms can readily use an option-pricing model to measure their initial cost.

This paper also suggests a method of accounting for share-based award plans through time. We believe that using an option-pricing valuation method to measure the obligation at date of grant, as is currently required for share-settled obligations, provides a reasonable measure of the amount of the obligation at that date. However, by failing to adjust this amount as conditions change over time, the current accounting for share-settled obligations does not capture changes in the impact of the plan on shareholders. In contrast, cash-settled obligations are periodically re-measured in response to changing share price. The accounting for these obligations, therefore, attempts to measure changes in the impact of the plans on shareholders. The measurement method, however, is inadequate. It measures the obligation at only its intrinsic value. It completely ignores time value, an important component of the obligation's value, particularly in the early years. The hybrid approach we propose borrows the positive attributes of each method and avoids their flaws.

The purpose of the paper is to suggest a way to improve the understandability, reliability, and relevance of the financial statements. The accounting profession makes progress in these areas when it measures, accounts, and reports similar transactions in similar ways. This paper presents a common way to measure, account, and report all share-based award plans.

REFERENCES

Apostolou, N.G., and K. L. Crumbley. 2001. "Accounting for Stock Options: The Controversy Continues." *CPA Journal* 71(May): 34-38.

Balsam, S. 1994. Extending the Method of Accounting for Stock Appreciation Rights to Employee Stock Options. *Accounting Horizons* 8(4): 52-59.

Balsam, S., and W. Paek. 2001. "Insider Holding Requirements, Stock Options, and Stock Appreciation Rights." *Journal of Accounting, Auditing, and Finance* 16(Summer): 227-248.

Bernardo, M.A., and R.C. Galvin. 1990. "Stock Options and Equity-Based Executive Compensation: A Long-Term Perspective." *Journal of Corporate Accounting and Finance* 1(4): 379-387.

Briloff, A.J. 2003. "Accounting for Stock Options." *The CPA Journal* 73:12(December):12-19.

Cron, W.R. and R.B. Hayes. 2004. "Accounting for Stock Options: Measuring the Real Cost Through Time." *Mid-American Journal of Business* 19:2: 1-9.

_____. 2006. "Valuation of the Stock Options of Non-Publicly Traded Companies." *Mid-American Journal of Business* (forthcoming).

Goldstein, M.G., W.A. Drennan, and M.J. Madsen. 2000. "Converting Stock Options to Other Benefits." *Journal of Financial Service Professionals* 54:2: 34-53.

Hill, N.T. and K.T. Stevens. 2002. "Showing Employees the Value of Their Stock Options." *Strategic Finance* 83:9(March): 44-47.

Levitt, H.L. and B. Gardiner. 2004. "Phantom Stock Plans: A Viable Alternative to Restricted Stock?" *Compensation and Benefits Review* 36:4:19-25.

Longnecker, B.M. 2003. *Stock Option Alternatives: A Strategic and Technical Guide to Long Term Incentives.* Hartford CT: World at Work.

National Center for Employee Ownership. 2005. *Beyond Stock Options 3ed.* Oakland, CA: National Center for Employee Ownership.

Nordquist, K., and D. A. Ellingson. 1997. The Controversy Over Accounting for Stock Options: A Historical Perspective. *Mid-American Journal of Business* 12(2): 29-38.

Pratt, S.P, F.R. Reilly, and R.P. Schweihs. 1996. *Valuing a Business: The Analysis and Appraisal of Closely Held Companies.* Chicago: Irwin.

Thatcher, L.G.. 2005. "Equity-Based Compensation." *Journal of Deferred Compensation* 10:4(Summer): 50-71.

Thomas, P.B., and L.E. Farmer, 1984. "Accounting for Stock Options and SARs: The Equality Question." *Journal of Accountancy* 157(June): 92-98.

Wallace, W.A. 1984. "The Effects of Delays by Accounting-Policy Setters in Reconciling the Accounting Treatment of stock Options and Stock Appreciation Rights." *The Accounting Review* 59:2(May): 49-53.

Endnotes