● a 3C Publication
trends+issues

# STOCK OPTION EXPENSE
***QUARTER 3, 2002***

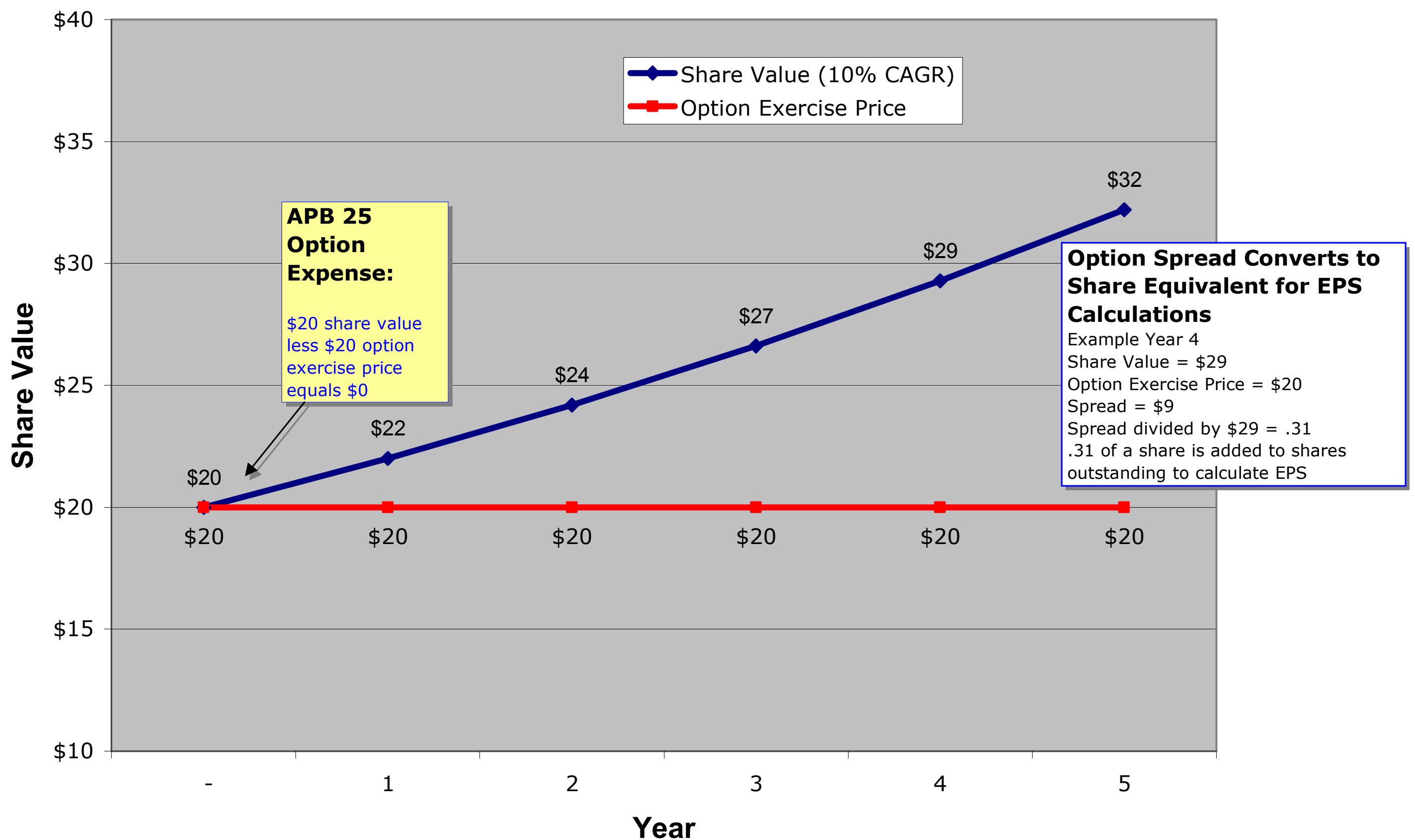
**Overview**

*As investors, regulators and companies debate voluntary adoption of FAS 123, Compensation Committees and Top Management need to rethink long-term incentives in finding the balance between earnings and EPS impact and competitive and motivational impact. This issue will at a minimum cause companies to modify their stock option plans to optimize earnings and at a maximum cause them to rethink stock option plans altogether.*

**Current Accounting Treatment**

Are employee stock options both employee compensation and a business expense? Most companies and executives would agree that stock options are contingent compensation based on the future appreciation of company stock. Even accountants determined early on, in the form of Accounting Principles Board Opinion 25 (APB 25), that stock options are compensatory. Under APB 25, the measurement of compensation is the difference between the fair market value of the underlying share and the option exercise price on the date of grant. Since most companies grant options with exercise prices equal to the fair market value on the date of grant, the compensation expense under APB 25 is $0. The value of the options in the future, however, was not completely ignored by the accounting profession, as the extrinsic value of the option, which is measured by the positive difference between market value and exercise price, must be converted to equivalent shares outstanding and used in the denominator when calculating fully diluted earnings per share. So in effect, APB 25 does not create an income statement expense, but it does dilute EPS by increasing the number of equivalent shares outstanding. For over 30 years APB 25 and the related dilution were considered sufficient disclosure under generally accepted accounting principles.

## Option Expense




In 1995 the accounting profession represented by the Financial Accounting Standards Board (FASB) issued FAS 123. FAS 123 requires companies to expense the fair market value of stock options using an option present value model such as the Black-Scholes pricing model or the binomial pricing model. The expense is classified as compensation and does not take into consideration the actual future value of the option, which could be considerably higher or lower than the model estimates. Business leader and advisor sentiment at the beginning of a U.S. bull market was so overwhelmingly negative to FAS 123 that FASB backed off and switched to voluntary adoption. FASB did, however, require all public companies to provide a footnote and pro-forma disclosure in their 10-K statements outlining the cost of issuing stock options under FAS 123.

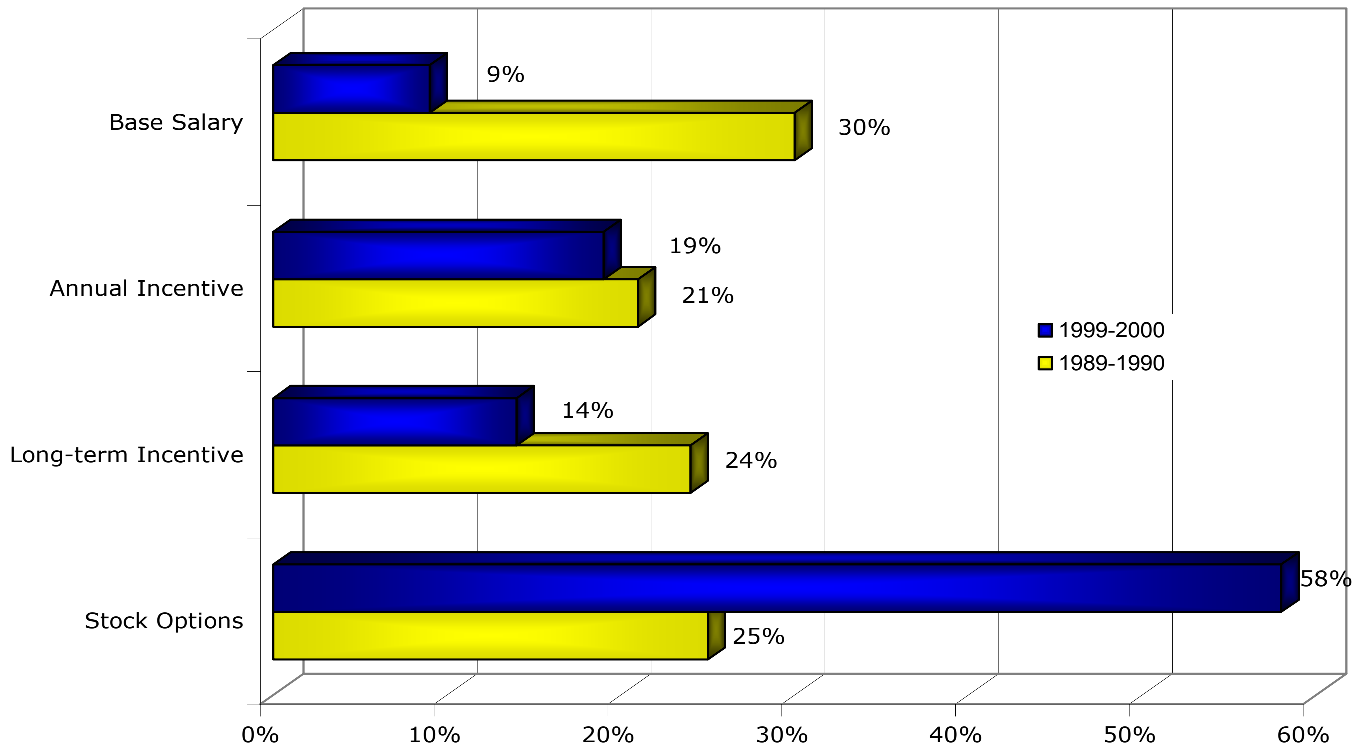
It is worth noting that the IRS has always had a different view of option valuation than FASB, with the difference being timing. While FASB looks at the value at grant, the IRS looks at the value at exercise – measuring the difference, or spread, between fair market value of the underlying share and exercise price. At exercise, the spread is deductible to the company and taxable to the participant.

Most companies still use APB 25, which recognizes the cost of an option as the difference between the grant price and the exercise price. Since most options are granted at fair market value, the grant price and exercise price are the same; accordingly, there is no expense. If a company decides to use FAS 123, it is required to

use an option valuation model to calculate the cost of the options (i.e, the fair market value of the options) and expense them net of anticipated forfeitures over the vesting period to which the options are subject.

Whether supported by favorable accounting treatment or not, options have become the compensation currency of choice over the past 10 years, as the following chart suggests.

**CEO Stock Options As a Percentage of Total Reward**




Source: Fortune 500 proxies, 3C analysis

trends+issues

● a 3C Publication

| Stock Option Overhang and Stock Market Performance from 1990 to 2000 | | |
|---|---|---|
| | Dow Jones Industrial Average | Overhang |
| 1990 | 2,634 | 5.4% |
| 1995 | 5,117 | 9.2% |
| 1997 | 7,908 | 11.9% |
| 1999 | 11,497 | 13.0% |
| 2000 | 10,787 | 14.6% |
| 10-year Annualized Growth Rate | 15.1% | 10.5% |

*Source: ECS Data Services, 3C analysis*

**Increased Option Usage**

Overhang is defined as total shares available under long-term incentive plans to total shares outstanding, whether granted or not.
With the Dow currently near 1997 levels, the issue of increasing overhang is even more pronounced as granted options remain unexercised.

**Summary of Current Public Opinion**

In 2002, public and investor sentiment has changed as trust in corporations seems to be at an all-time low. Much of the distrust is focused on erroneous earnings reports from companies like Enron and WorldCom, but this distrust is also directed at executive pay programs in general (primarily the stock option component) that are viewed as encouraging executives to adopt risky business strategies to support quick growth in the stock price. The negative publicity surrounding the growth in the size and value of stock option grants has raised the issue of stock option accounting to a new level.

In response to this eroding investor confidence, Coca-Cola, General Electric, General Motors, Wal-Mart and a number of other well-known companies have recently decided to adopt FAS 123 and to recognize stock options as a compensation expense. In this context, many companies are trying to determine if their executive compensation and stock option programs are correctly designed and whether they should adopt FAS 123 over APB 25.

The following samplings of public and investor opinions are overwhelming in their support of expensing the value of stock options. Many of these opinions reflect a belief that expensing stock options will help control the growth of executive compensation, restore public confidence in equity markets and attempt to close an illogical accounting conclusion that options do not have value and therefore do not create a compensation expense.

- **FASB** – Tried to make a change in 1995, but public opinion favored no expensing of stock options. FASB has stated at its August 2002 meeting that it will undertake a project to make voluntary adoption of FAS 123 easier.

- **International Accounting Standards Board (IASB)** – Is seriously considering adopting a standard requiring companies to expense options starting on the date of grant based on the fair market value (determined by option pricing models) and over the option vesting period. IASB moved away from the original contention in the exposure draft to expense the full, actual value of the option over its life. IASB is expected to require expensing in 2004.

- **McCain/Levitt (S 1940)** – This legislation, introduced by Senators Carl Levin (D-MI) and John McCain (R-AZ), ties the amount of a company's corporate tax deduction directly to the amount expensed on the company's earnings statement. The result for a company translates to the loss of its corporate tax deduction on option exercises.

- **Warren Buffett** – "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?". As an investor, he has pushed Coke-Cola and others to adopt FAS 123 voluntarily.

- **Alan Greenspan** – "I fear that the failure to expense stock option grants has introduced a significant distortion in reported earnings--and one that has grown with increasing prevalence of this form of compensation," Greenspan told a financial-markets conference convened in Georgia by the Fed Bank of Atlanta on May 3, 2002. "If investors are dissuaded by lower reported earnings as a result of expensing, it means only that they were less informed than they should have been. Capital employed on the basis of misinformation is likely to be capital misused.

- **Standard & Poors –** Recently announced that when it computes core earnings, it will deduct stock options as a compensation expense.

- **TIAA/CREF/ Council of Institutional Investors** – Both pension fund groups plan to lobby companies to expense stock options.

- **Intel** – "I think what we could do as a way to prevent abuse of options and excessive option grants to the top members of a company is just basically to force companies to expense the options granted to the top five officers," said Mr. Barrett, Intel's CEO. That would, in fact, minimize abuse at the top, but it would continue to allow companies to have a wide distribution of options to all of their employees without expensing the value of these options.

● a 3C Publication
trends+issues

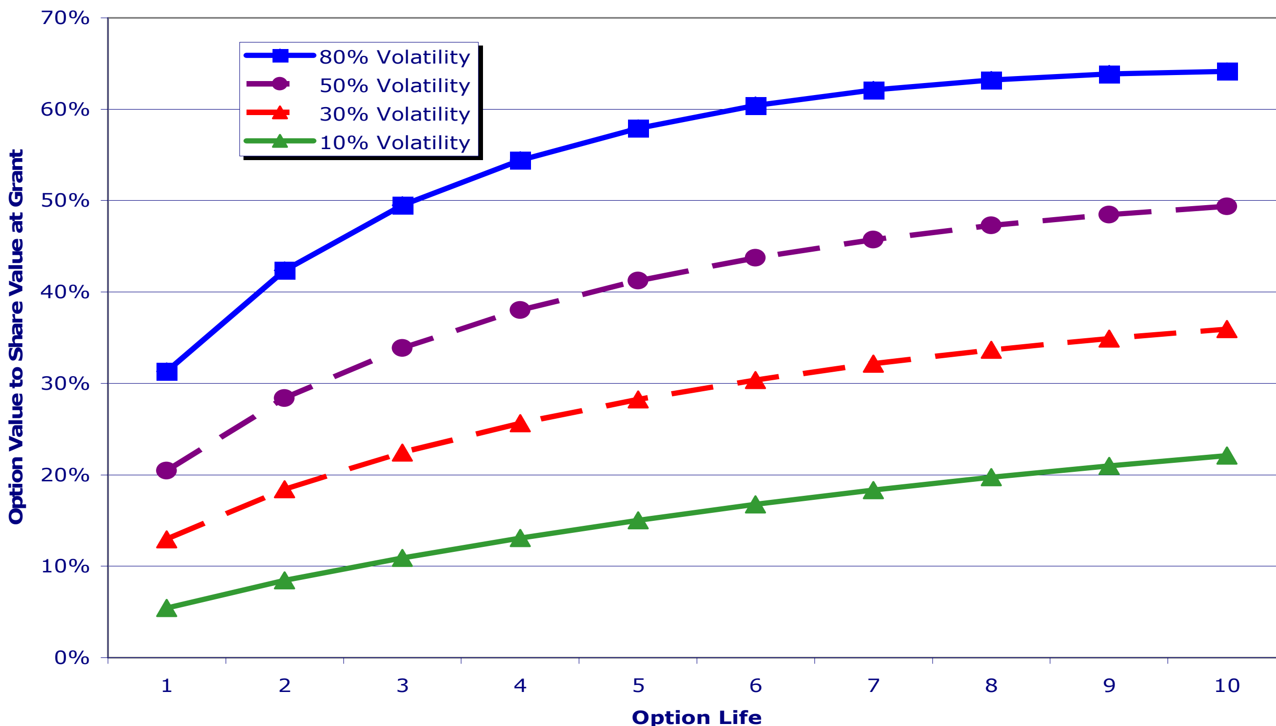
**Valuation Issues – What is the value anyway?**

Public companies are required, at a minimum, to disclose the value of stock options in their proxy and 10-K filings, and the prevailing regulatory bodies suggest using the Black-Scholes option valuation model, which has become widely adopted and accepted. At issue is that most participants value options differently, and this model was originally designed to calculate the value of publicly traded options, like those traded on the Chicago Board Options Exchange (CBOE). These traded options have a six-month expiration period, are liquid (there is a market for them, and they trade every day) and can be configured in both put and call options. Employee stock options are much different. Typically they have a 10-year term until expiration and are not liquid.

| Valuation Issue | CBOE Type Options | Employee Stock Options |
|---|---|---|
| ***Term*** | 6 months | 10 years until expiration |
| ***Vesting Schedule*** | None | Typically 3-5 year vesting |
| ***Liquidity*** | Highly liquid | No liquidity |

The following chart shows the relationship between the Black-Scholes value to underlying share price for options with varying lives and expected volatility (which attempts to measure how much the stock price varies around its average price over time). The chart shows that the higher the volatility and the longer the life of the option, the greater the Black-Scholes value (and FAS 123 expense).

**Option Valuation Chart**



● a 3C Publication

trends+issues


The Dow Jones Industrial volatility is typically in the 30% range. Applying that volatility to a typical company granting a 10-year option with a 5-year life would mean that the present value of its stock option grant is 30% of the underlying share value. This means an executive that received 100,000 options at $50 per share would receive an option “worth” $1,500,000.

Does the Black-Scholes model reflect how executives measure the value of their options? Executives seem to ignore Black-Scholes value and look instead at expected future appreciation and career time-frame. We believe that most executives tend to think in 5 year terms and varying growth increments. That same executive may compute the following model:

**Executive Option Valuation Model**

| Share Value | Expected Growth | Share Value at Year 5 | Option Value at Year 5 | Grant Future Value | Grant Present Value |
|---|---|---|---|---|---|
| $50 | Less than 0% | Less than $50 | $0 | $0 | $0 |
| $50 | 5% | $64 | $14 | $1,381,000 | $1,056,651 |
| $50 | 10% | $81 | $31 | $3,053,000 | $2,335,955 |
| $50 | 15% | $101 | $51 | $5,057,000 | $3,869,284 |
| | | | | | |
| | | | | Black-Scholes Value | $1,411,500 |
| | | | | Equal probability of below and above $50 | $1,210,315 |

This dichotomy in option valuation between executive and FAS 123 is further compounded by the limits of the existing Black-Scholes model. The Black-Scholes valuation model clearly does not reflect the way executive stock options work. The model computes a higher option value for higher volatility, but most executives do not want high volatility; instead, they want steady growth over the 5-7 year typical holding period.

We expect that in the near future the FASB will make it easier for companies to voluntarily adopt FAS 123. The inconsistency between the voluntary FAS 123 adopters and APB 25 users, however, may cause the SEC and its new accounting oversight board to require expensing stock options using Black-Scholes. This will create large stock option expense for companies with high volatility, like technology companies, that extensively use stock options and already have overhang issues. A summary of several high-tech companies shows the significant impact of FAS 123.

| Company | Regular reported earnings | With options charge |
|---|---|---|
| **Profits turn to loss:** | | |
| Siebel Systems | 49 cents | ($1.02) |
| eBay | 32 cents | (5 cents) |
| **Profits lessened:** | | |
| Microsoft | $1.32 | 91 cents |
| IBM | $4.35 | $3.69 |
| WorldCom | 48 cents | 20 cents |
| Intel | 19 cents | 4 cents |
| Oracle | 44 cents | 36 cents |
| **Loss increases:** | | |
| Yahoo | (16 cents) | ($1.73) |
| Apple | (7 cents) | ($1.22) |
| Amazon.com | ($1.56) | ($2.64) |
| RealNetworks | (47 cents) | ($1.13) |
| AOL Time Warner | ($1.11) | ($1.43) |
| Cisco Systems | (14 cents) | (38 cents) |

Source: All figures are from 2001 company annual reports filed with the Securities and Exchange Commission. WorldCom figures come from the company's original annual report.

**Impact of FAS 123 on Technology Companies**

The table to the left demonstrates the impact of high option grants on earnings. Defacto adoption due to an overwhelming number of voluntary adoptions or mandatory adoption will likely force these companies into three strategies.

1. Use more cash and less stock.
2. Use options for executives only
3. Limit options use and switch to restricted stock.

This response will impact non-technology companies as well, and they will likely employ similar strategies.

In order to level the playing field, FASB or the SEC will need guidelines for establishing common variables used by the option models, which are heavily dependent on three subjective items: option term, volatility dividend yield, and discount rate. The sensitivity of the model is summarized in the following table:

**Black-Scholes Option Model Variable Sensitivity**

| Variable | Change to Assumption | Value Impact |
|---|---|---|
| Option Term | 1 year | 9% |
| Volatility | 1% | 2% |
| Dividend Yield | 0.1% | 1% |
| Discount Rate | 1% | 5% |

Variables measured at year 5

Based on this analysis, any accounting standard that allows wide latitude in the model's variables will provide stock option earnings charges that will further distort earnings, as companies become as creative as they can to minimize this non-cash charge to earnings. This includes calls to lower the Black-Scholes value based on its illiquid nature and vesting requirements. The flexibility to modify the model could ultimately undermine the entire option expensing initiative. It also creates an interesting problem for communicating the value of the stock options to executives. As the Black-Scholes valuation is pushed toward its minimum, companies have to respond by granting even more stock options or try to overcome the difficulty of explaining why the company uses one measure to report earnings and another to communicate the expected value of stock options to executives. In order to address this problem it may make sense for companies to report their historical

dividend yield, expected option term (based on weighted average historical holding periods), monthly stock volatility consistent with expected option term, and historical dividend yield. Management would then be required to disclose any assumptions used in the model that are different then these actual historical results.

### Future Compensation Strategy Implications

With these accounting changes looming in this current environment of flat stock prices, slower economic growth and unprecedented overhang rates (driven largely by declining stock prices which stop option exercises), public companies may wish to actively rethink their disclosure position as well as their plan design. Three main strategies exist along with several minor strategies:

### Formally Adopt FAS 123 While it is Still Voluntary

Given the voluntary nature of this adoption, current adoptions tend to be pure investor and public relationship improvement plays. Expensing stock options currently sends signals to the investment community:

- Options are not "free" and they will be used more judicially going forward.
- The company's accounting and profit picture will be clearer since all compensation and business expenses will be more fully reflected in its financial statements.
- That we are a leading edge, forward thinking company.

### Wait for Mandatory Adoption

IASB adoption begins in 2004, and we expect that this will press the SEC and FASB to consider formal adoption. At a minimum, FASB will need to ensure the assumptions used in any present value model are consistently and reasonably applied. This may also include some relief from the double counting that currently exists in expensing the present value of the option over the vesting term and diluting earnings with the outstanding share equivalents in the form of unexercised option gains. Expect major investors and the consulting industry to push companies to adopt FAS 123 voluntarily. In the meantime, however, we expect most employers to wait for mandatory adoption.

### Start to Rethink Long-Term Incentive Plans

To put all of this in perspective, a typical company will grant 1% to 2% of it shares outstanding in the form of stock options on an annual basis. Assuming normal volatility, dividend rates and option term, the company will charge its earnings somewhere in the neighborhood of .3% to .6% of its market capitalization on an annual basis to continue its existing practice. By contrast, it could grant 1/3 fewer shares in the form of restricted stock and still have the same earnings impact, use far fewer shares in the process and have a potentially neutral impact on fully diluted EPS.

As current footnote disclosure of the impact of expensing stock options eventually moves up into the income statement, it will start to level the playing field with restricted stock and even cash compensation programs. While options will still be the long-term incentive vehicle having the best combination of upside value based on future share appreciation and a fairly low earnings charge to relative value, restricted stock also adds a dimension of rewarding directly for an individual's time with the company while providing upside potential and using fewer shares in the process. Restricted stock also tends to have better retention qualities than options — especially given the issue of underwater options. The following table shows the relative efficiency of restricted stock to options in grant year value.

| Options vs. Restricted Stock | | | Year 5 Future Values | | | |
|---|---|---|---|---|---|---|
| | Shares in Grant | Grant Date Present Value | 0% | 5% | 10% | 15% |
| **Options** | **3,000** | **$50,000** | **$0** | **$41,442** | **$91,577** | **$151,704** |
| | | | | | | |
| **Restricted Stock** | **1,000** | **$50,000** | **$56,250** | **$70,721** | **$88,157** | **$108,996** |

Share price on grant date:$50, 39% volatility, 2.5% dividend yield

Note, that at grant year, restricted stock uses two fewer shares for every option to deliver an identical grant date present value. This directly addresses current overhang issues. They are not equivalent in outcomes, as a 15% share appreciation yields a higher return under the option grant which reflects, in large part, the leverage associated with having control of more future share appreciation.

Another simple way of placing more shares in the hands of executives or employees is to settle cash incentive plan payments in shares and to allow voluntary elections to acquire shares of stock. In order to support holding shares, these payments may have a premium applied. For example, 125% of the cash amount in the form of restricted shares.

Adoption of FAS 123 also paves the way to introduce Performance Stock Options – which are more attractive now because the charge to earnings under APB 25 can be offset by higher levels of performance required before exercise.

Adoption on a voluntary or involuntary basis (which may occur in the future) will also make restricted stock a more favorable long-term incentive vehicle that has both downside protection and upside potential. High market volatility increases “value” or cost of options, but possible downside makes them seem less valuable to executives. Restricted stock may provide less downside and additional upside value to executives. As result, companies may use restricted stock grants in lieu of stock options; performance-accelerated vesting of restricted stock further enhances this reward’s link to improved company performance.

Other related considerations:

- All employee option grants may be too expensive unless relief is provided in the new standards (this is unlikely). Option use may again be limited to key employees going forward.

- More long-term incentive cash based programs may be tied directly to those performance metrics that executives influence the most, namely growing profits.

In either case, expensing stock options formally or informally will continue to cause changes in the long-term incentive plan designs to attain that challenging balance between shareholder returns and pay programs which create attractive and competitive opportunities, encourage or require share ownership and at-risk compensation and optimize earnings.

trends+issues

• a 3C Publication

**For more information on this particular article and issue, contact**

Brian P. Enright, Partner, 312-343-3222, Brian.Enright@3Ccomp.com
Mark Reilly, Partner 708-606-9861, Mark.Reilly@3Ccomp.com