If We Have To Expense Options, Realistic Valuation Is the Key

By Bob Pavey, Morgenthaler Ventures

First, let's be clear. While an option has value to the recipient, its granting incurs no "cost" to the company. This holds true when we look at actual dollars leaving company bank accounts and this holds true when we look at the more theoretical framework—often favored by proponents of expensing options—of opportunity costs.

Perhaps the easiest way to demonstrate the absence of cost to the company is as follows. Assume a company has one million shares outstanding, and then grants one million shares to a new shareholder. After the transfer, the existing shareholders own half of the company and the new shareholder owns half. The company has changed in no way other than its number of shares, and the impact of this change is reflected in all per-share calculations.

In so doing, the company has incurred no corporate opportunity costs, because it has foreclosed no other equity sales opportunities. It has the opportunity, should it so choose, to divide and distribute stock in an infinite variety of ways.

One might ask what group of people would busily expend so much energy reducing the value of stock they hold so that another group might gain. The answer, of course, is that we, as venture capitalists, along with company's founders, willingly relinquish company shares to a broad range of company employees. We are the ones who experience an opportunity cost, not the company, and it's an opportunity cost that we gladly incur.

Those of us who spend our lives working with entrepreneurial companies know that stock options are critical in fostering innovation and entrepreneurship. Stock options are the best instrument we have found over the history of the U.S. venture capital industry for creating commonality of interest between employees and shareholders. They reward employees for strong performance at all levels of organizations, but only if that performance is translated into improved shareholder values.

Unrealistically expensing these options could diminish their use and make them too expensive to issue for many organizations, and there are some who think that is a good idea. I have no good answer for those who think that equity ownership causes management to unrealistically hype their stock, except to say that this does not happen in companies with strong boards of directors. In addition, expensing options will not keep poor boards from turning them into an entitlement for only the corporate elite—any more than expensing ridiculous golden parachutes has diminished their use.

Valuation, No Matter What

We sometimes live in an irrational world in which we have to bend with political winds. If we must, in fact, expense options, what value shall we assign them?

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Following the accounting scandals this year, countless investors, journalists, politicians and regulators are demanding transparency and quality information. Assigning an arbitrary and meaningless value does not accomplish this laudable goal, however, because the wrong valuation will result in an entry that is simply ignored—in much the same manner that the pre-IPO option expense currently required by the SEC is regularly ignored by almost all financial analysts.


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For the public at large, the danger of inaccurate valuation may be the opposite—wildly fluctuating income statements that may be taken too seriously. Take Cisco, whose Black-Scholes-determined expense in fiscal 2001 would have reduced net income by 80% or \$3.3 billion, but whose 2002 expense would only be \$131 million. What CEO would want to explain that kind of income statement change to his or her shareholders?

Valuation matters! As a result it is important to understand the valuation methodology currently being used and to understand its shortcomings.

The Formula

In 1973, Fischer Black and Myron Scholes published the first successful model for pricing financial options. That model was applicable to simple put and call options on equities. The methodologies that they introduced have subsequently been expanded for use in pricing a wide variety of derivative instruments and contingent claims.

The Black-Scholes formula relates the price of an option to the following inputs at the date the option is granted: "the exercise price and expected life of the option, the current price of the underlying stock and its expected volatility, expected dividends, and the risk-free interest rate for the expected life of the option."

Thus, to "figure the value of an option when it's granted, you have to estimate the company's future ability to generate dividends and the volatility of its share price. These tasks are manageable for the kind of short-lived options that trade like wildfire in over-the-counter derivatives markets, but they're not at all easy for the sort of long-term options companies use to pay their employees," writes U.C. Berkeley Finance Prof. Mark Rubinstein.

Although the Financial Accounting Standards Board (FASB) doesn't mandate use of the Black-Scholes model, it requires that public companies use a model that takes into account all of the above. Obviously strike price is set, but all of the other factors are guesses. The expected volatility estimate is the most subjective, most prone to exaggeration.

No Discount

Most importantly, and in addition to the problems with the Black-Scholes model, another significant problem is FASB's refusal to permit any discount for vesting periods and for a lack of transferability and the fact that the majority of options issued are not exercised. Because Black-Scholes was designed to value freely tradable options, it cannot take these factors into account. Black-Scholes, in effect, provides a "fair value" for a fully vested and freely tradable option, not for an employee stock option. Who in his right mind would value an unvested and illiquid option that is subject to forfeiture at the same level as a fully vested and freely tradable option? My answer: No one except those who work for FASB. In fact, I would argue that the application of unmodified Black-Scholes would overvalue stock options significantly more that the current zero valuation undervalues them. And no one has proposed offsetting this "expense" with the offsetting value transferred from existing shareholders.

Minimum Value

FASB permits nonpublic entities to use Black-Scholes to determine the "fair value" of their stock options. It also allows nonpublic entities to use something called "minimum value." In essence, minimum value is the Black-Scholes value assuming zero volatility. This method is called minimum value because the lower the volatility, the lower the resulting value. If FASB re-opens the expensing debate, there is no guarantee that it will continue to permit the use of minimum value for nonpublic companies, forcing all entities to use Black-Scholes.

Following the decision by some 100 companies to voluntarily expense options, FASB decided to undertake a limited-scope project to reconsider the transition and disclosure provisions. FASB will likely follow the lead of the International Accounting Standards Board (IASB) on a broader rule change. The IASB appears to be on schedule to issue an exposure draft advocating expensing during the fourth quarter of 2002. FASB has stated that it will prepare a document for comment that compares and contrasts the IASB proposal with current FASB rules. After comments are received, it will determine its next step.

Each case will be reviewed with regard to its own set of facts and circumstances, but the courts generally have held that a party need not show "actual competitive harm" from disclosure of the information.

While options have a value to their recipients, the transfer of value by a board of directors from shareholders to management is done by wise boards because it is in the interests of those shareholders to motivate the management of their company. While I see no logic for expensing this value, I am still in the minority—hopefully a growing minority. Fortunately, there are growing concerns that Black-Scholes is an inappropriate model for valuing employee stock options. Several companies that recently announced their intent to expense options called on regulators to develop a better model. Arbitrary numbers on the income statement aren't the way to restore investor confidence or reign in executive compensation.

"If you find me three statisticians, I can give you at least six estimates for the volatility of stocks. ... There will be people who will try to be clever with these kinds of numbers," writes David Blitzer, chief investment strategist for Standard & Poors.

It is time to recognize that there has been enough gaming of the books. The answer is either (a) accounting rules that recognize the fundamental folly of expensing share distribution of all kinds or (b) some kind of valuation that, with at least some degree of realism, reflects the real world.

At present, I see no such valuation on the horizon, nor do I expect one from an international body with little real-world experience with stock options. The only realistic response to recent corporate excess is better directors of public boards. U.S. markets require directors who take seriously their responsibility to represent the shareholders, especially when they arbitrarily transfer value from those shareholders who elected them to the management who works for them. ▼

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