

Accounting for employee stock options

There is little doubt that executive remuneration through options leads to distortions and misrepresentations in companies' financial statements. As **LAKSHMAN ALLES** shows, the proper accounting for stock options requires dealing with some thorny issues.

The quality of corporate financial reporting has come under the spotlight of the international media, giving rise to serious concern among the investment community, government and the general public about the reliability of corporate financial statements.

One of the reasons identified as a cause of the poor quality of annual reports and the distortion in corporate financial reports is the failure of companies to report the effects of stock options issued to corporate employees on their profit statements and balance sheets.

Companies have defended their positions by pointing to the lack of clear guidelines in the accounting standards for reporting and accounting for employee stock options. But setting guidelines for accounting and expensing for stock options may be easier said than done.

Remuneration incentives

The remuneration packages of company executives are typically made up of options on company stock, together with the more traditional compensation forms of cash salaries, bonuses and perquisites.

Stock options have gained in popularity as a means of motivating employees to raise performance while aligning the interests of employees and shareholders at the same time. Start-up companies and companies in new

technology sectors in particular compete among themselves to attract the most talented employees by offering ever more attractive stock option packages.

A stock option is a right to purchase the company's shares at a predetermined value, referred to as the exercise or strike price, within a specified period, called the expiration period.

When a stock option package is issued to an employee, a time interval may be set between the issue date or the grant date and the earliest time when the employee can exercise the option, called the vesting date.

The employee has the right to exercise the option between the grant date and the expiration date of the option. When an option is granted to an employee, the exercise price of the option is usually set at, or more often, above the market price of the share so that the option is said to be out of the money.

An out of the money option has no 'intrinsic value', which is the excess of the market price above the exercise price. But this does not mean that the option has no value at all. The option will have a 'time value', reflecting the probability of the share price moving up during the expiration period and becoming in the money.

When an out of the money option is granted, the value of the option to the employee is its time value. The expense to the firm of issuing the option should correspondingly equal the time value of

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the option, even though there is no cash expense to the firm at that point.

The total value of an option at any point in time would be its intrinsic value if any, plus its time value. This is better known as the 'fair value' in the accounting profession.

The accounting profession has been grappling with a number of issues relating to the recognition and measurement of stock options in financial statements. One issue is when the stock options should be initially recognised in the profit and loss statement and balance sheet.

On the grant date, the firm has no liability to pay but a commitment to pay does arise. In other words, a contingent liability arises which should be recognised as such in the financial statements.

Liabilities

A liability would arise to the firm from the vesting date onwards, to the extent that the option is in the money. However the exact magnitude of this liability would be uncertain, since it would depend on the date the employee decides to exercise the option and the share price that prevails on the exercise date.

A second issue is the manner in which the magnitude of the liability and the corresponding expense to the company should be measured. The question is whether the intrinsic value or the fair value of the option is the more appropriate measure.

The arguments for using the intrinsic value are that it is simpler to measure than the fair value and that it measures the actual liability to the firm arising from the option. On the other hand, using intrinsic value ignores the time value of the option altogether.

An employee receiving an out of the money option from the firm still gets an item of value, and this is the option's time value. This value should correspond to the expense to the company. If this expense is not recognised in the profit and loss statement, profits would be overstated.

Such a line of reasoning would be consistent with the concepts of fair value accounting. In companies where the number of outstanding options is a sizable proportion of the number of shares on issue, there is also the potential for a dilution in the earnings per share,

in the event that the options are exercised.

This would be a cause of concern to shareholders. Shareholders may have a legitimate case for arguing for the effects of this dilution to be disclosed in the financial statements. A consistent method for providing this information needs to be determined.

One reason that preparers of financial statements have resisted the move towards fair value accounting in employee stock options is the technical difficulties involved in measuring the fair value of the options.

The most commonly accepted method for valuing options is the Black-Scholes (BS) option pricing model, originating from the Black and Scholes (1973) paper. The BS model is applied to valuing options traded in the market, given a set of assumptions about the characteristics of the option. The other method available for valuing options is the Binomial option pricing model. This method is less user-friendly and requires sophisticated computing skills to make it workable in real world situations. Consequently, the BS model has gained greater acceptability in the Corporate world.

Applying the BS model to value employee stock options is less straightforward than valuing traded options because there are several significant differences between employee stock options and traded options.

These differences may require that the BS model be suitably modified when valuing employee options. Employee stock options have many restrictions on their transferability and are therefore not tradable in the market.

As a result, the value of the option to the employee would be less than a traded option with similar features. A second difference between employee options and traded options is that unlike traded options, employee options cannot be exercised during their vesting period.

This factor would again tend to lower the employee stock option value relative to a standard option value. A method for quantifying the effect of these differences on the value of employee options needs to be determined.

A basic requirement in formulating an accounting rule such as the valuation method for stock options is that the rule be usable in a uniform and consistent manner in the preparation of financial statements across firms.

Financial statements are used to compare a firm's performance over time and with others. A lack of consistency in the method applied in preparing accounts from one firm to another would impair the comparability of financial statements.

Therefore, accounting rules should be objective as far as possible and leave as little as possible to the discretion and subjective judgment of the account preparer. From this perspective, the application of the BS model gives rise to some serious concerns.

Underlying volatility

One of the key inputs to the BS model is the estimate of the volatility of the underlying stock's returns over the future expiration period of the option. Since future volatility is not observable in advance, the volatility must be forecast based on a model chosen by the user.

Different estimates used for volatility in the BS model can result in a wide range of different values for the option. There is no single method of volatility estimation that could be regarded as superior to all others.

But if the firm already has options on its shares trading in the market, perhaps the most objective approach would be to use the volatility implied by the traded option prices, worked out from the BS model.

However, not all firms would have the convenience of having traded option prices observed in the market. Moreover, they would need to have traded options with the same expiration dates and strike prices as those of the employee options to work out a relevant implied volatility. The likelihood of such options being available could be limited given the fact that employee options generally have much longer expiration periods than traded options.

Even if accurate estimates of the stock price volatility are available for inputting to the BS model, there are questions about the technical precision

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of the option value estimated by the BS formula itself.

While the BS formula is perhaps the most well accepted and widely used formula in finance, it is also well known that the BS formula works well only for valuing near the money options. The degree of error in the BS formula is larger the more an option is out of the money.

Given that employee stock options could well be deep out of the money in many cases, the precision of the option values obtained through the BS could be a material concern to preparers of financial statements.

If accounting for employee options is fraught with so many problems, should the matter be simply ignored? This has of course been the practice up to now and it has obviously led to serious misrepresentations and concerns about the numbers in financial statements.

The alternative would be to live with the shortcomings. That is, to carry out the exercise of accounting for options with the best practices available, while providing a full disclosure of the methods and assumptions going into the calculations. Then the readers could at least make a more informed judgment of a firm's state of affairs.

In Australia, the Australian Accounting Standards Board (AASB) is the body responsible for promulgating the national accounting standards.

Its standards are designed to converge and harmonise with international accounting standards as issued by the International Accounting Standards Board (IASB) from time to time.

The IASB has issued a draft standard on employee stock options for comment by 7 March 2003.

While the IASB is trying to work out its position on this issue, it would be an opportune time for the AASB to examine what its own position might be on this issue, giving due regard to the concerns of both financial statement preparers and statement users in Australia.

References

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