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
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
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