Experts Seek Better System On Options. Critics Say Current Measure Can Lead To Inaccuracy

Janet McFarland, Globe & Mail
Published: Tuesday November 12, 2002

Accounting experts are calling for new methods to record the cost of employee stock options, saying there are flaws that must be corrected if regulators proceed with their plans to make options a mandatory expense.

Critics say they are concerned that formulas used by companies to calculate the cost of their employee options have weaknesses, often leading to inaccurate results.

They are also concerned that option costs are recorded as an up-front estimate, but the expense is never adjusted to reflect what actually happens to the options. In some cases, options soar in value and the original estimate was too low; in others, they expire worthless and unexercised and the original estimate was too high.

"The accounting treatment is not reflecting the reality of this instrument," says John Hull, a finance professor at the University of Toronto. "The nature of these sorts of contingent payments is that their value does jump around quite a bit."

The criticism of options accounting is taking on a new importance.

Accounting Standards Board (ASB) said last month that it is planning to introduce rules that require companies to record the cost of their stock options as a business expense on their income statements -- a move that could take effect by next summer. Last week, the International Accounting Standards Board (IASB) -- a trend setter in accounting rules -- also recommended that options become a mandatory expense.

With option expenses set to become key measures affecting profitability, accountants say there should be a debate about whether and how the measurement should be improved.

"The language of accounting is not adjusting to the present situation," says Reuven Brenner, a business professor at McGill University in Montreal who has studied options accounting. "The language of accounting lives in the past."

The most common approach to valuing options is to use a complex mathematical formula known as the Black-Scholes model to try to estimate how much options will likely be worth when they're finally exercised, and to record that cost as an expense in the year they are granted to employees.

The classic Black-Scholes formula was not designed for employee options, which are different in many respects from options that trade on open markets.

Prof. Hull teamed up with fellow U of T finance professor Alan White to complete a project in August to revise the Black-Scholes model to make it more applicable to employee options. They did their work at the request of the Ontario Teachers Pension Plan Board, one of Canada's largest institutional investors.

Prof. Hull says employee stock options have very long-term expiry dates (typically 10 years), are not tradable, have a vesting period (often three years) during which they cannot be exercised, and become valueless if employees quit their jobs before they can be exercised.

That means it is difficult to predict the estimated life span of employee options. The new formula adds more variables to the equation, such as the typical employee exit rates during and after the vesting periods and a multiple to account for early exercising of options.

Mark Rubenstein, a finance professor at the University of California at Berkeley, has amended another option valuation formula, known as the binomial tree model, to take account of the differences in employee options. His model requires 16 complex variables to be used in the calculation, including estimates of how many options will be forfeited because of employee iresignations.

But even an improved formula still has enormous room for manipulation, Prof. Rubenstein warns.

He has analyzed the different values that can be generated for the same stock options, depending on which numbers are chosen for the variables in the formulas. He found similar options could easily be priced differently by adjusting even one or two assumptions.

"A firm seeking to overvalue its options might report values almost double those reported by an otherwise similar firm seeking to undervalue its options," he concluded.

Coca-Cola Co. said this summer that it has decided to take a different approach to estimate the value of options. Coke says it will ask a variety of brokerage firms to give it estimates for an options contract, believing a market price will be more accurate and less susceptible to manipulation. Coke will retain the right to actually exercise an options contract to ensure brokerage firms keep the price realistic.

But even Coke's method doesn't guarantee that the estimated value will ultimately prove accurate. Some commentators have suggested that the best answer is to not even try to estimate the value of options.

A few, for example, suggest simply recording the cost of the options once they are exercised. This has received little support, however, because it means a company knows it faces a liability for as long as 10 years, but does nothing to reflect that cost until the options are finally exercised.

"I think it makes sense to have an expense on the income statement at the time the option is granted," Prof. Hull says. "That is the time at which the company incurs the liability, and so it makes sense to reflect it at that stage."

Murray Johnston, chief financial officer of Winnipeg packaging company Winpak Ltd., has studied option expensing and proposes a simple alternative. He says companies should adjust the value of stock options through their life spans, based on the difference between their exercise price and the company's share price at each reporting period.

Mr. Johnston says this would avoid the complexity of doing an initial estimate of the value, but would recognize a cost as the options become valuable. Winpak does not use employee stock options, but advocates for proper expensing methods.

"The beauty of this is that there are some companies that reprice options, and this method takes account of that as well," Mr. Johnston says.

If options are repriced, he says, a company would record the difference between the amount it would have received for the shares previously and the lower value it will now receive.

Under Mr. Johnston's method, however, options are at first recorded as having no cost to the company because their exercise price is below the market price. They only slowly grow to have value as years pass and the company's share price rises.

Berkeley's Prof. Rubenstein believes this does not adequately convey to shareholders that options have significant future value when they are granted to employees.

Many prominent accountants are now proposing accounting treatments that would see companies do initial estimates of options costs, and then adjust the estimates over the lives of options.

Prof. Rubenstein says an initial compensation expense should be recorded, and then an adjustment should be made periodically as an "extraordinary item" to reflect the changing value of the option. One benefit of updating the expense is that companies have less incentive to manipulate the variables in expensing formulas.

"The truth will come out at the end," he says. "It still gives companies an opportunity to lie on the way, and I don't know what to do about that. But at least it's not as bad as never having to tell the truth."

Steve Scotchmer, a financial adviser at private investment firm Manitou Investment Management Ltd. in Toronto, says generally accepted accounting principles (GAAP) require companies to either record no expense of options or else report an initial estimate that is never corrected.

"By following Canadian GAAP, corporations have the choice between two bad alternatives," he says.

Mr. Scotchmer proposes treating stock options as a liability, and then adjusting the liability over time as the value of the stock changes. He says this is similar to the accounting treatment used for future pension liabilities.

But there is a significant obstacle to such proposals.

Current accounting rules require that options be treated like shares. Paying someone compensation in shares is a cost to the company at the time the shares are granted, but the expense is not later adjusted if the share price changes.

Proposals such as Mr. Scotchmer's would require a shift in accounting standards to recognize that there is an uncertainty to stock options that makes them a sort of adjustable expense, or an open-ended liability.

Indeed, Prof. Brenner at McGill co-authored a recent article that argued that options must have their own new accounting category.

"The language of 'equity' versus 'debt' is misleading in a world where financial instruments have characteristics of both," he said. "Putting options on the income statement reveals their expense. Putting them on the balance sheet reveals their risk. Together, they reveal exactly how and exactly how much a company is paying for its precious human capital."

The ASB is sticking with the traditional method of expensing stock options as if they were shares, which is the method also supported by the IASB.

Daniel Thornton, an ASB board member and a finance professor at Queen's University, says current accounting methods are the most logical approach.

Prof. Thornton says the initial grant of stock options is a compensation cost, and is recorded as such. Whatever happens subsequently with the exercise of options is a shareholder transaction, and shareholder transactions (including dividend payments) are not counted as income statement expenses.

He says warrants are treated similarly; there is no expense adjustment when they are finally exercised. Options will not be treated differently.

"Absolutely not; there will be no further adjustment," Prof. Thornton says. "The expense is measured and valued at the time the worker gets the award . . . From that point on, it's simply a transaction among owners."

Al Rosen, a forensic accountant and prominent critic of accounting chicanery, has his own reasons for being leery about allowing companies to make periodic adjustments to options expense. He argues that this could open the door even wider for option calculations to be manipulated to boost short-term profits, as pension plan gains have been.

In particular, he says adjustments to liabilities on a balance sheet will end up also reflected as changes in revenue, which distorts a company's real core performance.

"It's going to be a horror show," Mr. Rosen says. "You're opening it up each year and adjusting it to a lot of factors. It is just going to be a disaster."

Anthony Scilipoti, a forensic accountant at **Veritas Investment Research Corp**. in Toronto, is a supporter of adjusting the original estimates over time. But he says the top priority must be consistency.

He said a formula with flaws is acceptable if all companies use it, the flaws are understood, and there is full disclosure of all the variables that went into the calculation.

"As long as we use a method everyone is familiar with, and everyone else is using, at least we have something to hang our hat on," he says. "Everyone who uses Black-Scholes is going to have the same limitations. If every company starts using different methods, we have even more confusion."