The CPA Journal

Print

Critical Accounting Estimates for Share-Based Payment Arrangements

Disclosure Requirements Under SFAS 123(R)

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JUNE 2007 - The accounting for stock option compensation expenses has changed over the years. In 1972 the Accounting Principles Board (APB) issued APB Opinion 25, *Accounting for Stock Issued to Employees*, setting out relatively straightforward accounting rules for recognizing stock option compensation expense. APB Opinion 25 uses the intrinsic value method, which identifies the compensation expense of fixed stock options based on the difference, if any, on the date of the grant between the fair value of the company's stock and the exercise price of the option. An inherent problem with this application soon became apparent: Although stock options were widely granted in some industries, little or no compensation expense was reflected on the operating results of the publicly held companies. In 1993, FASB focused its attention on this seemingly inconsistent result and issued SFAS 123, *Share-Based Payment*, requiring companies to reflect stock-based compensation in their operating results. In the face of stiff opposition from special-interest groups and legislators, FASB quickly softened its position, requiring only footnote disclosures for share-based arrangements. In 2004 the standard was revised, requiring companies to incur stock option compensation expenses. SFAS 123 (R) has had a significant effect on corporate profits. Intel, for example, reported share-based compensation totaling $706 million in the first half of 2006, compared to zero in the first half of 2005, because of the change in methodology. Likewise for Dell Inc., which had a stock-based compensation expense of $112 million for the three months ended May 5, 2006, compared to $5 million for the three months ended April 29, 2005.

The expense valuation methods that FASB requires are based upon option pricing models that are fairly complicated and require many assumptions and estimates—some of which, if wrong, could produce materially different results in the operating results of the companies.

Financial statement users should pay attention to the disclosure of critical accounting estimates, as a supplement to footnote disclosures, for the share-based payment arrangements in SEC Forms 10-K and 10-Q, as based on recent SEC and FASB guidance, because the estimates used can have a significant impact on reported results.

Critical Accounting Policies and Estimates

The SEC requires management to discuss the dynamics of its operations and present a detailed narrative of the financial statements. The proper place for this discussion is in the Management Discussion and Analysis (MD&A) section of the 10-K and 10-Q. The current Sarbanes-Oxley Act (SOX) environment has necessitated enhanced corporate transparency and additional financial disclosure. With its December 2001 Release FR-60, *Cautionary Advise Regarding Disclosure About Critical Accounting Policies*, the SEC issued guidance on more robust and transparent financial discussions in the MD&A. The concept of critical accounting policies (CAP) came out of Release FR-60. CAP disclosures require management to present more in-depth discussion of the policies, judgments, and estimates that could materially affect financial statements.

In May 2002, the SEC proposed a further enhancement to CAP disclosures: critical accounting estimates (CAE). Initially the technical application for CAEs was considered too complex and thus, never finalized. However, in December 2003, the SEC issued Release FR-72, *Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations*. Section V of FR-72 again addressed CAE. The guidance requires disclosures of the nature of any estimates or assumptions that could materially impact the financial condition or operating performance of an entity. These disclosures should supplement, not duplicate, the description of accounting policies and estimates that are already disclosed in the footnotes to the financial statements. The footnotes to the financial statements should generally describe the methods used to apply an accounting principle. The discussion of CAEs, on the other hand, should present management's analyses of the uncertainties involved in applying a principle or the variability that is reasonably likely to occur due to the principle's application. In the CAE disclosures, an entity should address how it has arrived at those estimates, how accurate they have been historically, and if they are subject to change in the future. The guidance also encourages companies to provide quantitative and qualitative MD&A disclosures (see Exhibit 1).

Share-Based Payment Arrangements

In December 2004, FASB revised SFAS 123 and issued SFAS 123(R), *Share-Based Payment*, which requires companies to expense the estimated fair value of employee stock options and similar awards. SFAS 123(R) replaced SFAS 123 and superseded APB Opinion 25. In March 2005, the SEC staff issued Staff Accounting Bulletin (SAB) 107, "Share-Based Payment." SAB 107 creates a framework premised on two overarching themes:

- Considerable judgment will be required to successfully implement SFAS 123(R), specifically when valuing employee stock options; and
- Reasonable individuals, acting in good faith, may conclude differently on the fair value of employee stock options.

The SEC staff believes that there will not be only one acceptable choice for estimating the fair value of share-based payment arrangements under the provisions of SFAS 123(R). The judgments and estimates that management applies in determination of the share-based compensation could be summarized as follows:

- Selection of a valuation model
- Making assumptions used in determining the variables used in a valuation model—
    - expected life,
    - volatility,
    - interest rate, and
    - dividend
- Determination of forfeiture rate and its adjustment to actual results in subsequent periods
- The transition method
- Income tax effects of share-based payment awards.

Paragraphs 64 and 65 of SFAS 123(R), paragraphs A240 through A242 of the implementation guidance of SFAS 123(R), and SAB 107 discuss the minimum disclosure requirements. Even though both FASB and the SEC have issued clear, precise guidance on the footnote disclosure requirements for SFAS 123(R), the

MD&A disclosure requirements remain to some extent murky, and it is expected that management should follow the guidance of FR-60 and FR-72 to articulate its CAE disclosures.

A survey of recent quarterly filings of registrants reflects a variety of CAE disclosures, ranging from companies that chose not to discuss the share-based arrangements as one of their critical accounting policies, to companies that included a very comprehensive discussion and a sensitive analysis of the variables used in their stock option valuation models.

Exhibit 2 presents a summary of disclosure requirements for the share-based payment arrangements in the footnotes and the MD&A of annual and quarterly reports.

Valuation Model

SFAS 123(R) requires that if observable market prices for similar instruments are not readily available, a company must use a valuation technique or model to arrive at an estimate for the fair value of share-options granted. Paragraph A240(e)(1) of the implementation guidance requires a note disclosure describing the method used during the year to estimate the fair value (or calculated value) of awards issued as share-based payment arrangements. Interpretative response 3 in SAB 107 allows a change in the valuation technique used by a company from one period to the next without considering it a change in accounting principle. Interpretative response 2 further discusses specific requirements that a valuation model must meet. The CAE section should provide the following supplementary information:

- The selected valuation method has been applied consistently.
- The model is based on established principles of financial economic theory.
- The model reflects all the substantive characteristics of the instrument.
- Management preference has some justification.

Variables

Expected life. Paragraph A240(e)(2)(a) of the implementation guidance requires note disclosure of the methods used to arrive at the expected life of options and similar instruments, including a discussion of the method used to incorporate the contractual term of the instrument and the exercise and post-vesting employment termination behavior. Furthermore, interpretative response 4 of SAB 107 requires the classification of employees into different homogeneous groups, based on their exercise and post-vesting employment termination behaviors, for the determination of the expected life of the share-based arrangements. The CAE section, however, should have a more in-depth discussion of the historical data as well as other factors that might impact the expected term. These factors include the following:

- Employee turnover rate;
- Employee demographics and classification into homogeneous groups;
- Any restructuring plan resulting into a reduction in force and employee turnover;
- Whether the options are at-the-money;
- The exercisability of the options;
- The period of time the employees are allowed to exercise their options upon termination;
- The transferability and hedgeability of the options;
- The judgment exercised by management to weigh such factors; and
- The availability and accuracy of the existing data to arrive at an estimate for the expected life of the options.

The SEC allows the use of what it calls the simplified method for "plain vanilla options" (vesting term, plus original contract term divided by two), based on interpretative response 6 of SAB 107. The staff also believes that more detailed information about exercise behavior will, when compiled over time, allow companies to calculate the expected life more accurately. Thus, it allows companies to use this method only for options granted prior to December 31, 2007. If a company is using the simplified method to arrive at the expected life of options, it should discuss its plan for gathering additional information to arrive at a more precise expected life.

Volatility. Because SFAS 123(R) does not require an entity to adopt any particular model to calculate the expected volatility, paragraph A240(e)(2)(b) of the interpretation guidance requires footnote disclosure of the expected volatility of the options and the method used to estimate it. For example, at minimum the staff would expect the company to disclose whether it has used implied volatility, historical volatility, or a combination of both (see interpretive response 5 of SAB 107).

Statement 123(R), paragraph A32 (a), indicates that companies should consider historical volatility over a period generally commensurate with the expected or contractual term of the awards. If an entity has used a period of historical data longer than the expected or contractual life of the awards, or has completely excluded the historical data from its estimate, the CAE should discuss why management reasonably believes the additional historical information improves its volatility estimate. The discussion generally should present the extent to which historical volatility, implied volatility, or a combination of both has been relied upon. A newly public company might also use the expected volatility of similar companies to arrive at its own volatility. If so, it should discuss the procedure and methodology used to arrive at such volatility and include any possible future changes once its own volatility data becomes available.

A company should discuss in the CAE any events, such as merger and acquisition, or any other factors, such as volume of trading, which could reasonably impact the estimate of expected volatility of options. Furthermore, an entity should disclose whether it has used its methodology for calculation of volatility consistently from one period to the next, and if it expects any changes in the future.

Interest rate. Paragraph A240(e)(2)(d) of the interpretation guidance requires the footnote disclosure of the range of risk-free interest rates when an entity uses a method that employs different risk-free rates. The risk-free rate is usually assumed to be a short-term treasury rate, such as U.S. Treasury zero-coupon issues. The CAE should include the methodology used to arrive at the risk-free interest rate for the fair value calculation of options and any future impact of any interest rate fluctuation on valuation.

Dividend. Paragraph A240 (e)(2)(c) of the interpretation guidance requires footnote disclosure of the range of expected dividends when an entity uses a method that employs different dividend rates. A company may use either its expected dividend yield or its actual payments in its option-pricing model. The historical pattern of dividend yield or payment fluctuation must be taken into account. As such, the CAE should discuss the methodology of arriving at dividend rate and any expected changes in dividend policy.

Registrants should also provide a sensitivity analysis in their CAE addressing the impact of any possible changes in the variables used for the calculation of the share-based payment arrangements during the current period or future periods.

Forfeiture rate. Estimating the quantity of awards that are expected to vest or become exercisable is as important as measuring the fair value of compensation cost. A share-based award could be forfeited prior to vesting due to an employee's termination or failure to satisfy a performance condition. The forfeiture

provision is an estimate of the share-based awards expected to be cancelled prior to vesting. Management can use historical information to arrive at a forfeiture rate, but it should adjust the rate to reflect future expectations. For example, if a company has recently restructured or experienced employee turnover but has been able to achieve its restructuring goals or does not expect turnover to recur, then the forfeiture rate should reflect the underlying change in business conditions. The estimate for forfeiture rate should be revised if information becomes available indicating that the previous estimate was not accurate. The cumulative effect of a change in estimate for current and prior periods should be recognized as a true-up in compensation cost in the period of change.

SFAS 123(R) has no particular requirement for footnote disclosure of forfeiture provision. The nature of the forfeiture provision is very much like the allowance for bad-debt accounts receivable. A company should disclose the method used to arrive at a forfeiture provision, as well as the factors that impacted it, in the CAE section. For example, an entity might use historical data to arrive at forfeiture rate but take into consideration the future employee turnover rate and demographic factors. A company should also disclose the cumulative effect of any true-up and any trend that might impact it in future periods. Management applies judgment to arrive at a forfeiture rate estimate every quarter, and a complete discussion of such judgment in its CAE is important.

Transition method. The CAE should include a discussion of the transition method selected for the adoption of SFAS 123(R)—e.g., modified prospective application or modified retrospective application—and the impact of this adoption on the operating results of current and future reporting periods.

Income tax effects. Paragraphs A94 through A96 of the implementation guidance provide advice on the income tax aspect of share-based arrangements. A company should disclose the tax aspect of an arrangement based on SFAS 109, *Accounting for Income Taxes*, and *FASB Interpretation 48, Accounting for Uncertainty in Income Taxes—an Interpretation of FASB Statement 109*, in the notes to its financial statements. The CAE section, however, should disclose the following:

- Judgment exercised by management in the calculation of any deferred tax asset related to stock option grants;
- An additional paid-in-capital pool calculation, estimates related to IRC section 409A (which covers material changes to the tax treatment of nonqualified deferred compensation plans and arrangements); and
- Any other judgment and estimate it has applied regarding the tax impact of stock option grants.

Absent Specific Guidance

As stated in SEC Release FR-72, the principal objectives of MD&A are to give financial statement readers a view through the eyes of management, to provide a context within which financial information should be analyzed, and to provide information about the quality and potential variability of a company's earnings and cash flow, so that investors can evaluate past performance as an indicator of future performance. Furthermore, such disclosures should supplement, not duplicate, the description of accounting policies and estimates already disclosed in the notes to the financial statements.

Management exercises significant judgment to estimate share-based compensation, and as such, application of the CAE requirements for share-based payment arrangements is extremely important. A summary of CAE disclosure requirements for determination of the compensation cost based on share-based awards would include a discussion of the following:

- The methodology chosen to arrive at each estimate;
- The assumptions made to arrive at each estimate;
- The factors that have impacted each estimate and future trends;
- The possibility of changes in each estimate;
- Any current changes or possibility of any future changes in the methodology used to arrive at each estimate;
- The accuracy and reliability of each estimate;
- The periodical review and revision of the variables; and
- An analysis of the impact of any changes in the variables on the operating results of the entity.

The accounting pronouncements have no specific guidance for share-based arrangement CAE disclosures. In this case, under FR-72, like many other areas of MD&A disclosure, management should apply a "principles-based" approach.

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