Accounting News: Accounting for Employee Stock Options

or banking organizations that issue stock options to their employees, January 1, 2006, marked a watershed event. On that date, Statement of Financial Accounting Standards No. 123 (Revised), Share-Based Payment (FAS 123(R)), took effect for entities with a calendar year fiscal year and eliminated the choice between two significantly different methods of accounting for employee stock options. Under FAS 123(R), an entity that awards stock options to its employees must recognize the cost of employee services received in exchange for the award, generally based on the fair value of the options. Under previous accounting standards, an entity could choose to adopt the fair-value-based method for measuring the cost of employee stock options or a method that generally resulted in the recognition of no compensation cost. Although an increasing number of banking organizations and other companies had adopted the fairvalue-based method in recent years, most entities had continued to apply the latter method, known as the intrinsic value method, for financial reporting purposes. Because of the significance of the changes brought about by FAS 123(R), this article discusses its key provisions and its effect on banks' reported earnings and capital levels.

Key Elements of FAS 123(R)

The Financial Accounting Standards Board (FASB) adopted FAS 123(R) in December 2004 to replace FASB Statement No. 123, Accounting for Stock-Based Compensation (FAS 123), which was issued in 1995, and to supersede Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to *Employees* (APB 25), which dates back to 1972. The FASB summarized the provisions of these earlier standards in FAS 123(R) as follows:

Statement 123 established the fairvalue-based method of accounting as preferable for share-based compensation awarded to employees and encouraged, but did not require, entities to adopt it. . . . Statement 123 allowed entities to continue accounting for share-based compensation arrangements with employees according to the intrinsic value method in APB Opinion No. 25, Accounting for Stock Issued to Employees, under which no compensation cost was recognized for employee share options that met specified criteria. Public entities that continued to use the intrinsic value method were required to disclose pro forma measures of net income and earnings per share as if they had used the fair-value-based method [to recognize the cost of employee share options in their income statements]. Nonpublic entities that continued to use the intrinsic value method were required to make pro forma disclosures as if they had used the minimum value method or the fair-value-based method for recognition [in their income statements].

FAS 123(R) applies broadly to all sharebased payment transactions in which a banking organization or other entity acquires goods or services from an employee or a supplier or other nonemployee by issuing, or offering to issue, shares of its equity, stock options, or other equity instruments.^{1,2} In general, it also addresses transactions in which an entity incurs liabilities to an employee or

¹ For such share-based payment transactions with nonemployees, an entity must also follow the guidance in Emerging Issues Task Force Issue No. 96-18, "Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services."

² However, FAS 123(R) does not apply to equity instruments held by an employee stock ownership plan (ESOP), the accounting for which is governed by American Institute of Certified Public Accountants' Statement of Position 93-6, *Employees' Accounting for Employee Stock Ownership Plans*.

nonemployee in amounts at least partially based on the price of the entity's equity instruments or that are or may be payable by issuing equity instruments. In addition to employee stock options with a wide variety of characteristics, sharebased payment arrangements with employees to which FAS 123(R) applies include stock appreciation rights, restricted stock awards, restricted stock units, performance share plans, performance unit plans, and employee stock purchase plans.

In FAS 123(R), the FASB established two overarching principles that apply to all share-based payment transactions: a recognition principle and a measurement principle. As applied to employee stock options, the first principle provides that an entity must recognize in its financial statements the employee services received as they are received in exchange for the issuance of the options. The entity also recognizes a corresponding increase in equity capital (or, in some cases, liabilities). As these services are consumed, the entity recognizes the related cost in its income statement as expenses incurred for employee services.³ The second principle states that the stock options must be measured based on their fair value (or, in some cases, a calculated value). FAS 123(R) also provides guidance on the accounting for modifications of awards and the tax effects of sharebased compensation arrangements, and it establishes disclosure requirements for these arrangements. The standard's transition rules explain how entities should account for stock options awarded in periods before the effective date of FAS 123(R).

Description of Employee Stock Options

FAS 123(R) defines a "share option" generically as a "contract that gives the holder the right, but not the obligation, either to purchase (to call) or to sell (to put) a certain number of shares at a predetermined price for a specified period of time," and adds that most share options granted to employees are call options. Identifying the terms of stock options awarded to employees is essential to properly account for the options. As the definition indicates, two of the terms are the exercise price of the options (and whether and how it may subsequently be adjusted) and the options' contractual term. The exercise price of most stock options equals the market value of a share of the employer's stock on the date the option is granted. Nevertheless, options can be granted with an exercise price that is greater than or less than the market value of the employer's stock on the grant date. The exercise price also can be adjusted upward or downward in response to changes in an index.

The vesting provisions of an award explain when the employee has the right to exercise the option. For a call option, the option becomes vested when the employee's right to receive shares by exercising the option "is no longer contingent on satisfaction of either a service condition or a performance condition." The end of the stated vesting period for an option would normally occur at the same time the employee has the right to exercise the option, which is typically after a specified number of years of continuous service to the employer. However, besides a service condition, the vesting provisions of an option may also

³ In some cases, the cost of the option would be initially capitalized into the cost of another asset, which would be recognized in earnings when that asset is later disposed of or consumed. In banks, if options are issued to employees involved in originating loans, a portion of option costs would be included in loan origination costs that are deferred under FASB Statement No. 91, Accounting for Nonrefundable Fees and Costs Associated with Originating or Acquiring Loans and Initial Direct Costs of Leases.

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include one or more performance or market conditions that must be met in order for an option to be exercisable. A performance condition is a condition determined solely by reference to the employer's operations or activities, such as attaining a specified increase in return on assets or undergoing a change in control. In contrast, a market condition is one that relates, for example, to the achievement of a specified price or intrinsic value for the employer's stock.

For an option with a service condition, an employer can establish either "cliff" or "graded" vesting. Under cliff vesting, employees become fully vested at the end of a specified period, (e.g., after four years of service). Under graded vesting, employees vest at specified rates over a specified period (e.g., 25 percent per year over a four-year vesting period or 50 percent in the first year and 25 percent in the second and third years of a threeyear vesting period).

One other significant feature of stock options is their tax treatment for federal income tax purposes. The Internal Revenue Code classifies employee stock options as either incentive stock options (ISOs) or nonqualified stock options (NSOs). To be an ISO, the option must satisfy several statutory requirements. An option that does not satisfy these requirements is an NSO. The tax consequences, both to the employer and the employee, differ for ISOs and NSOs. The vast majority of employee stock options are NSOs.⁴

The Basics of Accounting for Stock Options Under FAS 123(R)

The general rule when accounting for employee stock options under FAS 123(R) is that an employer must measure the cost of services received from employees in exchange for the awarding of the options based on the grant date fair value of the options if they are classified as equity or based on the fair value of the options at each balance sheet date if they are classified as liabilities. Because employee stock options usually are classified as equity, the remainder of this article addresses such options. The employer recognizes the compensation cost for an award of employee stock options classified as equity over "the period during which an employee is required to provide service in exchange for an award," which is termed "the requisite service period," generally with a corresponding credit to additional paid-in capital on the balance sheet.^{5,6} The estimation of grant date fair value will be discussed later in this article.

For an award of stock options, the grant date is defined in FAS 123(R) as "[t]he date at which an employer and an employee reach a mutual understanding of the key terms and conditions" of the award. Awards that are subject to approval by the shareholders, the board of directors, or management are not deemed to be granted until the necessary approvals have been obtained. However, if shareholder approval is required but is "essentially a formality (or perfunctory)," actual approval is not needed (assuming any other necessary approvals have taken place). This situation occurs, for example, "if management and the members of the board of directors control enough votes to approve the arrangement."

In addition, FASB Staff Position No. FAS 123(R)-2, issued in October 2005, makes a practical accommodation for the determination of the grant date. It provides that, assuming all other grant date criteria have been met, there is a presumption that "a mutual understand-

⁶ On a bank's balance sheet, additional paid-in capital is typically labeled "surplus."

⁴ CCH Incorporated, Accounting for Compensation Arrangements, 2006 edition, Paragraph 11.8.

⁵ In general, compensation cost is recorded as a current period expense, except as described in footnote 3. However, this article follows the convention used in FAS 123(R) of referring to compensation cost rather than compensation expense because of the existence of this exception.

ing of the key terms and conditions of an award to an individual employee" exists at the date "the award is approved in accordance with the relevant corporate governance requirements" if the employee lacks "the ability to negotiate the key terms and conditions of the award with the employer." It must also be expected that these terms and conditions will be communicated to each individual award recipient "within a relatively short time period from the date of approval" in accordance with the entity's "customary human resource practices."

The terms of the stock option award must be analyzed in order to estimate the requisite service period. When an award includes only a service condition, the requisite service period is presumed to be the vesting period absent evidence to the contrary. However, when such an award has a graded vesting schedule, the employer must make a policy decision about whether to treat the award, in substance, as multiple separate awards, each of which has its own requisite service period, or as one award with a requisite service period that corresponds to that of the last separately vesting portion of the award. Determining the requisite service period becomes more difficult when an award contains performance or market conditions or both because the probability of satisfying these conditions must be assessed. The initial best estimate of the requisite service period must be adjusted over time as circumstances and hence, these probabilities, change. The date at which the requisite service period begins is defined as the "service inception date." Although this date is usually the same as the grant date, in some instances the service inception date may precede or follow the grant date.

Because FAS 123(R) addresses the accounting for share-based payment transactions with both employees and nonemployees, but with certain differ-

ences between the two, an employer must determine whether the persons to whom it has awarded stock options are employees for purposes of this accounting standard. An employee is an individual over whom the employer exercises or has the right to exercise sufficient control to establish an employeremployee relationship under applicable law, which for the United States encompasses common law and federal income tax laws. In addition, nonemployee directors who are granted stock options for their services as directors are deemed to be employees for purposes of FAS 123(R) if they are elected by the employer's shareholders or are "appointed to a board position that will be filled by shareholder election when the existing term expires." Options awarded to directors for other services are treated as awards to nonemployees under FAS 123(R).

The total compensation cost that should be recognized over the requisite service period should be only for employee stock options that will actually vest. For example, some employees may leave the employer before the vesting period is over, thereby forfeiting their options. In addition, it may or may not be probable that a performance condition will be achieved. When stock options include only a performance condition for which achievement is not probable, then the options will be treated as not vesting and no compensation cost should be recognized. Stock options that include both service and performance conditions add to the complexity of estimating the number of options that will actually vest. In contrast, FAS 123(R) states that "a market condition is not considered to be a vesting condition," and therefore it does not enter into the estimation of the number of options that will vest. The standard provides instead that "[t]he effect of a market condition is reflected in the grant-date fair value of an award."

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Although performance conditions are becoming more prevalent, virtually all stock option awards include a service condition.⁷ When estimating at the grant date the number of options that will be forfeited because the service condition will not be met, the employer "considers historical employee turnover and expectations about the future." Because the estimate of forfeitures over the requisite service period may change over time, including on the basis of actual experience after the grant date, the estimated number of options that will vest must be revised if subsequent information indicates that this number is likely to differ from the previous estimate.

Once the employer has determined the grant date of the options, their fair value on that date, the requisite service period, and the number of options that will vest, the total compensation cost of the options can be calculated. For options with cliff vesting, this cost is recognized on a straight-line basis over the requisite service period. For options with graded vesting (and a service condition only), the cost recognition pattern depends on whether the employer's policy choice is to treat the stock option award as one award, to which the straight-line method is applied,⁸ or as multiple separate awards, to which an accelerated method is in effect applied. Examples later in this article will illustrate the differences in cost recognition.

If fully vested employee stock options later expire unexercised, which would be the case if the market price of the stock is less than the exercise price of the option, the employer is not permitted to reverse the previously recognized compensation cost.

An entity that is a subsidiary of another company (e.g., a bank that is a subsidiary of a holding company) may award options on its parent company's stock to one or more of its employees as compensation for services provided to the entity. FAS 123(R) observes that "[t]he substance of such a transaction is" that the parent company "makes a capital contribution" to the subsidiary and the subsidiary "makes a share-based payment to its employee in exchange for services rendered." Thus, the subsidiary would account for these stock options by applying FAS 123(R) in its own separate financial statements, including, for a bank, in its regulatory reports.

Estimating the Grant Date Fair Value of Stock Options

FAS 123(R) states that an entity should measure the fair value of a stock option as of the grant date "based on the observable market price of an option with the same or similar terms and conditions, if one is available," but the FASB further notes that market prices generally are not available. In the absence of such prices, fair value must be "estimated using a valuation technique such as an option-pricing model." The standard identifies a "lattice model" (e.g., a binomial model) and a "closedform model" (e.g., the Black-Scholes-Merton formula) as acceptable optionpricing models and a Monte Carlo simulation technique as another type of acceptable valuation technique. An entity must choose an appropriate valuation technique on the basis of the substantive characteristics of the options it is valuing. The Black-Scholes-Merton model is considered easier to apply because it is a defined equation and incorporates only one set of inputs. As a result, it is the model most commonly in use. The binomial model is more complex and therefore is used less frequently, although its supporters argue

⁷ CCH Incorporated, Accounting for Compensation Arrangements, 2006 edition, Paragraph 8.7.

⁸ When the "one award" policy choice is made, the cumulative "amount of compensation cost recognized at any date must at least equal" the number of options that have vested times their grant date fair value.

that it produces more accurate fair value estimates for options because it can take into account more assumptions and can incorporate multiple inputs.⁹

Whatever model or valuation technique an entity uses for valuing employee stock options, FAS 123(R) specifies six inputs and assumptions that, at a minimum, must be taken into account:

- the exercise price of the option;
- the current price of the underlying stock;
- the expected term of the option; and
- over this term,
 - the expected volatility of the price of the underlying stock;
 - the expected dividends on the underlying stock; and
 - the risk-free interest rate or rates.

An entity must develop reasonable and supportable estimates for the assumptions it uses in the model. FAS 123(R) notes that historical experience should generally be the starting point in developing these estimates, but expectations based on such experience should be modified when "currently available information indicates that the future is reasonably expected to differ from the past." Furthermore, when estimating the expected term of an option, an entity must consider "both the contractual term of the option and the effects of employees' expected exercise and postvesting employment termination behavior."

Volatility is defined in FAS 123(R) as a "measure of the amount by which a financial variable such as a share price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period." The standard also cites a number of factors to be considered in estimating the expected volatility of the underlying stock's price. The staff of the Securities and Exchange Commission (SEC) has also issued guidance on volatility in Staff Accounting Bulletin No. 107, *Share-Based Payment* (SAB 107).¹⁰ The outcome of this estimation process is particularly important because the higher the expected volatility, the greater the fair value of an option.¹¹

In developing FAS 123(R), the FASB recognized that it might not be practicable for a nonpublic company that awards employee stock options to estimate the expected volatility of its share price because of insufficient historical information about past volatility, for example. In this situation, the nonpublic company will be unable to reasonably estimate the grant date fair value of its stock options. To remedy this problem, FAS 123(R) directs nonpublic companies to account for their stock options based on a "calculated value" rather than the grant date fair value. To determine the calculated value, a nonpublic company substitutes "the historical volatility of an appropriate industry sector index for the expected volatility" of the price of its underlying stock in its chosen option-pricing model. If possible, the industry sector index should reflect the size of the nonpublic company. The use of a broad-based market index is not permissible.

Accounting for the Tax Effects of Stock Options

FASB Statement No. 109, Accounting for Income Taxes (FAS 109), establishes the standards for accounting for and reporting the effects of income taxes in financial statements. Under FAS 109, in general, deferred tax assets and liabilities are recognized when there are "temporary differences" between the tax bases of assets and liabilities and their reported amounts in the financial statements.

⁹ Tim V. Eaton and Brian R. Prucyk, "No Longer an 'Option," Journal of Accountancy, April 2005, 66–67.

¹⁰ SAB 107, released in March 2005, can be accessed at http://www.sec.gov/interps/account/sab107.pdf.

¹¹ CCH Incorporated, Accounting for Compensation Arrangements, 2006 edition, Paragraph 7.27.

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The tax treatment of employee stock options that are ISOs and those that are NSOs differs, resulting in a different accounting outcome under FAS 109. For an NSO, the more prevalent form of option, the employee typically does not recognize any income for federal income tax purposes until the option is exercised. Upon exercise, the amount by which the fair market value of the stock exceeds the exercise price of the option is ordinary income to the employee, and the employer is normally entitled to a tax deduction for this amount. In contrast, when an ISO is exercised, the employee does not realize any taxable income and the employer does not receive a tax deduction. However, if the employee enters into a "disqualifying disposition" by selling the shares before the end of either of two specified holding periods, the transaction will generate a certain amount of ordinary income for the employee and an equivalent tax deduction for the employer.

Thus, the tax treatment of employee stock options is noticeably different from the financial accounting treatment of options under FAS 123(R). This standard views these differing treatments of NSOs as a deductible temporary difference for purposes of applying FAS 109, which leads to the recognition of deferred tax assets until the option is exercised or expires. However, ISOs do not generate a deductible temporary difference because they do not ordinarily result in tax deductions for the employer. Only when a disqualifying disposition occurs will the employer recognize the tax effects arising from the disposition in its financial statements.

For NSOs, the employer must recognize a deferred tax asset and a corresponding credit to deferred income tax expense each year during the requisite service period. The amount of the deferred tax asset equals the compensation cost recognized during the year times the "applicable tax rate" (i.e., the tax rate "expected to apply to taxable income" in the future year or years when the stock options are expected to be exercised). In addition, FAS 109 requires the employer to determine whether it is more likely than not that some or all of its deferred tax assets will not be realized and, if so, to establish an appropriate valuation allowance.

When the NSOs are exercised, the employer's tax deduction may be greater than or less than the cumulative amount that has been recognized as the compensation cost for the options. In the former case, the amount of any realized tax benefit in excess of the previously recognized deferred tax asset is normally credited to additional paid-in capital (APIC). However, if the tax benefit resulting from the tax deduction arising from the exercise of the options will not be realized because the employer is in a tax loss carryforward position, recognition of this "excess tax benefit" will be delayed until the deduction actually reduces taxes payable.

The accounting can be more complicated when the tax deduction resulting from the exercise of NSOs is less than the cumulative compensation cost for the options, thereby creating a "tax deficiency." In this situation, the amount by which the deferred tax asset associated with the exercised options is greater than the tax benefit from the tax deduction must be written off. To the extent that there is "any remaining additional paidin capital from excess tax benefits from previous [share-based payment] awards accounted for in accordance with" FAS 123(R) or FAS 123, the write-off is first charged against such remaining APIC. If the remaining APIC is not sufficient to absorb the entire write-off, the remainder of the write-off is charged to income tax expense in the income statement. FAS 123(R) provides guidance on how to determine the amount of the so-called "APIC pool" available to absorb write-offs of deferred tax assets related to tax defiTable 1

Treatment of Awards Granted Before the Effective Date of FAS 123(R)			
	Treatment of Awards Granted in Periods Prior to Effective Date of FAS 123(R)	Restatement of Financial Statements for Periods Prior to Effective Date of FAS 123(R)	
All public companies regardless of accounting method used previously	Must use modified prospective application transition method	May elect to restate using modified retrospective application transition method	
Nonpublic companies that used the fair- value-based method for recognition or disclosure purposes under FAS 123	Must use modified prospective application transition method	May elect to restate using modified retrospective application transition method	
All other nonpublic companies	Continue to account for awards outstanding at effective date using accounting principles originally applied to those awards, but apply FAS 123(R) to modifications of those awards after the effective date	Restatement not permitted	

ciencies, but the calculation process has been criticized as overly complex.¹²

When NSOs expire unexercised, the deferred tax asset associated with these options must also be written off because no tax deduction is generated. The write-off is accounted for as described above for a tax deficiency.

Transitioning to FAS 123(R)

As a result of guidance issued by the SEC in April 2005,¹³ public companies other than "small business issuers" were required to adopt FAS 123(R) as of the beginning of their first fiscal year beginning after June 15, 2005, while small business issuers and all nonpublic companies must adopt this standard as of the beginning of their first fiscal year beginning after December 15, 2005. As a result, FAS 123(R) took effect for all calendar year companies on January 1, 2006.

The standard applies to all new stock options and other share-based payments

awarded to employees after its required effective date and to prior awards modified after that date. For companies that had awarded share-based payments to employees prior to the effective date of FAS 123(R), different transition methods apply to these awards depending on whether the company is public or nonpublic and on its previous method of accounting for the awards. These methods are summarized in Table 1.

In general, under the modified prospective method, an employer with employee stock options for which the requisite service period has not been completed (i.e., options that are not fully vested) as of the effective date of FAS 123(R) must recognize compensation cost over the portion of the service period remaining after the effective date. The compensation cost must be based on the grant date fair value of those options as calculated under FAS 123.

When the use of the modified retrospective method is permitted, an employer must adjust its prior period

¹³ See SEC Release 33-8568, Amendment to Rule 4-01(a) of Regulation S-X Regarding the Compliance Date for Statement of Financial Accounting Standards No. 123 (Revised 2004), "Share-Based Payment."

¹² CCH Incorporated, *Accounting for Compensation Arrangements*, 2006 edition, Paragraph 11.43. The SEC staff and the FASB have attempted to provide some relief from the difficulties in calculating APIC pools in SAB 107 and in FASB Staff Position No. FAS 123(R)-3, *Transition Election Related to Accounting for the Tax Effects of Share-Based Payment Awards*, respectively.

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financial statements "to give effect to the fair-value-based method of accounting" under FAS 123 such that the "compensation cost [of share-based payments to employees] and the related tax effects will be recognized in those financial statements as though they had been accounted for under Statement 123."

Examples

The following examples illustrate the basics of accounting for employee stock options awarded after the effective date of FAS 123(R). The examples, which are for stock options with a service condition only, contrast the accounting and result-

ing compensation cost for options with cliff vesting versus graded vesting. The grant date fair values of the stock options are estimated using an appropriate option-pricing model such as the Black-Scholes-Merton formula. Table 2 presents key information for stock options awarded by Bank A and Bank B where the only differences arise from different vesting methods.

Example: Compensation Cost with Cliff Vesting

On the basis of the expected forfeiture rate during the vesting period, 34 of Bank A's employees who have been

Stock Option Information for Bank A and Bank B			
	Bank A (Cliff Vesting)	Bank B (Graded Vesting)	
Grant date	January 1, 2006	January 1, 2006	
Number of employees granted options	40	40	
Stock options granted to each employee	300	300	
Total stock options granted	12,000	12,000	
Expected forfeitures per year	5 percent	5 percent	
Share price at grant date	\$50	\$50	
Exercise price of option	\$50	\$50	
Contractual term of options	10 years	10 years	
Vesting	3-year cliff vesting	3-year graded vesting with one-third of the options vesting each year (3 tranches)	
Requisite service period (RSP)	3 years	First tranche (1/3 of the options): 1-year RSP Second tranche (1/3 of the options): 2-year RSP Third tranche (1/3 of the options): 3-year RSP	
Grant date fair value of options	\$18.00 per option	Tranche-by-tranche valuation: \$16.00 per option with a 1-year RSP \$17.00 per option with a 2-year RSP \$18.00 per option with a 3-year RSP Valuation of entire award using a single weighted-average expected life: \$17.00 per option	
Applicable tax rate	40 percent	40 percent	

Table 2

granted options are expected to vest at the end of this three-year period. This number is determined by multiplying the 40 employees granted options by one minus the expected forfeiture rate raised to the third power (for the number of years in the requisite service period), i.e., $(1 - 0.05)^3$ or 0.95^3 .

The total grant date fair value of all options that Bank A expects will actually vest is \$183,600, which is the number of options expected to vest (300 options x 34 employees = 10,200 options), multiplied by the grant date fair value of \$18 per option. Thus, Bank A must recognize total compensation cost of \$183,600 over the requisite service period of three years, one-third of which (\$61,200) will be recognized in each of the three years provided there are no changes in the expected forfeitures during that period. Because Bank A expects to generate sufficient future taxable income to realize the deferred tax benefits of its employee stock options, it must recognize income tax benefits of \$24,480 each year, which equals its applicable tax rate multiplied by the annual compensation cost (\$61,200 x 40 percent). These benefits would essentially be a credit to (a reduction of) deferred income tax expense.

In 2006, Bank A's journal entries to record its compensation cost and deferred taxes would be as follows:

Compensation cost \$61,200 Additional paid-in capital \$61,200 To recognize compensation cost. Deferred tax asset \$24,480

Deferred tax expense \$24,480 To recognize the deferred tax asset for the temporary difference related to compensation cost.

Provided the estimated forfeitures do not change in 2007 and 2008, Bank A would record the same journal entries in each of those two years. At the end of 2008, Bank A must review the actual number of forfeited options and adjust the cumulative compensation cost to bring it into line with the number of options that actually vested.

Example: Compensation Cost with Graded Vesting

Because Bank B's options have graded vesting, the bank must determine the number of employees granted options who are expected to vest in each of the three years. On the basis of the expected forfeiture rate each year, Bank B estimates the number of employees who will vest in 2006, 2007, and 2008 and the number of stock options expected to vest each year as shown in Table 3.

When employee stock options with graded vesting are subject only to service conditions, the employer may choose between two alternatives each for valuing the entire stock option award and recognizing compensation cost for the options, which results in four possible outcomes for each year's cost during the overall vesting period. Under the first combination of alternatives, Bank B estimates the

Table 3

Bank B's Estimate of Vested Stock Options		
Year Number of Employees Number of Vested Stock Options		
	Total at grant date = 40	
2006	40 x (1 - 0.05) = 40 x 0.95 = 38	38 x (300 x 1/3) = 38 x 100 = 3,800
2007	38 x (1 – 0.05) = 38 x 0.95 = 36	36 x (300 x 1/3) = 36 x 100 = 3,600
2008	36 x (1 - 0.05) = 36 x 0.95 = 34	34 x (300 x 1/3) = 34 x 100 = 3,400
		Total vested stock options = 10,800

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fair value and recognizes the compensation cost of the options by separating the entire award into its three tranches according to the year in which each tranche vests. This produces the results in Table 4.

By treating the entire award as if it were multiple awards (three in this example) rather than a single award, Bank B recognizes the compensation cost "on a straight-line basis over the requisite service period for each separately vesting portion of the award." This means, for example, that Bank B will recognize the \$61,200 compensation cost attributable to the 3,600 options that vest at year-end 2007 proportionately over the two-year requisite service period that it takes for these options to vest. The estimated \$183,200 total compensation cost is allocated to 2006, 2007, and 2008 as shown in Table 5.

Using journal entries comparable to those illustrated for Bank A, Bank B would record the amounts of compensation cost allocated to 2006, 2007, and 2008 along with the related deferred taxes each year. For example, the entries for 2006 would be as follows:

Compensation cost \$111,800 Additional paid-in capital \$111,800 To recognize compensation cost.

Deferred tax asset \$44,720 Deferred tax expense \$44,720 To recognize the deferred tax asset for the temporary difference related to compensation cost.

The second combination of alternatives available to Bank B would be to take the \$183,200 estimated total compensation cost calculated above, but to recognize this total cost on a straight-line basis over the three years of the graded vesting period. Bank B's total compensation cost would be allocated equally to each of

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Cor	Compensation Cost for Three Annual Tranches			
Year Options Fully Vest	Number of Vested Options	Grant Date Fair Value per Option	Compensation Cost	
2006	3,800	\$16.00	\$ 60,800	
2007	3,600	\$17.00	\$ 61,200	
2008	<u>3,400</u>	\$18.00	<u>\$ 61,200</u>	
Total	10,800		\$183,200	

Table 5

Allocation of Compensation Cost over Three Years with Tranche-by-Tranche Valuation			
	Compensation Cost to Be Recognized in		
	2006	2007	2008
Stock options vesting in 2006	\$ 60,800		
Stock options vesting in 2007	\$ 30,600	\$ 30,600	
Stock options vesting in 2008	<u>\$ 20,400</u>	<u>\$ 20,400</u>	<u>\$ 20,400</u>
Cost for the year	\$111,800	\$ 51,000	\$ 20,400
Cumulative cost	\$111,800	\$162,800	\$183,200

these three years by dividing the total by three $(\$183,200 \div 3 = \$61,067 \text{ per})$ vear).14

For the third and fourth combinations of alternatives, Bank B would treat the stock option award as one award and use a single weighted-average expected life for purposes of estimating the grant date fair value of the options, which the bank determines is \$17 per option. Bank B could then recognize compensation cost on either a graded or straight-line basis as under the first two alternatives.

As previously calculated, the total number of stock options expected to vest is 10,800. With a value of \$17 per option, the total compensation cost of the award is \$183,600 for both the third and fourth combinations of alternatives (10,800 options x \$17 grant date fair value). If Bank B allocates this cost on a graded basis, one-third of the total cost, \$61,200, is allocated to each of the three tranches of the award. This amount is spread over the requisite service period for each tranche as shown in Table 6.

In contrast, if Bank B allocates this \$183,600 total compensation cost on a straight-line basis, the cost would be allocated equally to each of the three years

over which the options vest by dividing the total by three ($\$183,600 \div 3 =$ \$61,200 per year in 2006, 2007, and 2008).15

Regardless of the alternatives Bank B selects for estimating the value of the options and allocating the compensation cost, it must adjust the cost "for awards with graded vesting to reflect differences between estimated and actual forfeitures" in each tranche, including when the final tranche has fully vested.

Example: Exercise of Stock Options

In the example involving Bank A above, the 10,200 stock options vested at the end of 2008 have an exercise price of \$50. On December 31, 2010, when the price of Bank A's stock is \$70 per share, half the stock options (5,100 options)are exercised. If the par value of Bank A's common stock is \$10 per share, Bank A's entry to record the exercise of these options would be as follows:

Cash (5,100 x \$50) \$255,000)
Common stock	\$51,000
Additional paid-in capital	\$204,000
To recognize the issuance of c	ommon
stock upon exercise of stock o	ptions.

Table 6

Allocation of Compensation Cost over Three Years with Valuation Based on Weighted-Average Expected Life				
	Compensation Cost to Be Recognized in			
	2006 2007 2008			
Stock options vesting in 2006	\$ 61,200			
Stock options vesting in 2007	\$ 30,600	\$ 30,600		
Stock options vesting in 2008	<u>\$ 20,400</u>	<u>\$ 20,400</u>	<u>\$ 20,400</u>	
Cost for the year	\$112,200	\$ 51,000	\$ 20,400	
Cumulative cost	\$112,200	\$163,200	\$183,600	

¹⁴ For options with graded vesting and only service conditions, FAS 123(R) "requires that compensation cost recognized at any date must be at least equal to the amount attributable to options that are vested at that date," which is the case for this second combination of alternatives. However, if half the options awarded by Bank B had vested in 2006, half the total compensation cost would be recognized in 2006.

¹⁵ The compensation cost recognition requirement described in footnote 14 would also apply to this alternative.

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In contrast, if Bank A has no-par common stock, it would credit common stock for the sum of the cash proceeds received from the exercise of the options plus the \$91,800 previously credited to additional paid-in capital (5,100 options x \$18 grant date fair value) during the requisite service period for the options that have been exercised. In this case, Bank A's entry would be as follows:

Cash (5,100 x \$50) \$255,000 Additional paid-in capital \$91,800

Common stock \$346,800 To recognize the issuance of common stock upon exercise of stock options and to reclassify previously recorded additional paid-in capital.

Bank A is entitled to take tax deductions in 2010 for the difference between the market price of its stock on the date the stock options were exercised (\$70 per share) and the exercise price of the options (\$50 per share). For the 5,100 options exercised, which are NSOs, the deductible amount is \$102,000 [5,100 options x (\$70 - \$50)]. Because Bank A has generated sufficient taxable income in 2010 to fully use the tax deduction, the \$40,800 realized tax benefit of this deduction (\$102,000 tax deduction x 40 percent applicable tax rate) will reduce the bank's current income taxes payable. Bank A records the amount by which the \$102,000 realized tax deduction exceeds the \$91,800 compensation cost previously recognized for the options exercised (5,100 options x \$18 grant date fair value) as a credit to additional paid-in capital. The exercise of the stock options also signals the reversal of the deductible temporary difference that originated during the three-year requisite service period when the compensation cost of the options was recognized in Bank A's financial statements. As a consequence, Bank A must eliminate the previously recognized \$36,720 deferred tax asset associated with the 5,100 options exercised (\$91,800 compensation cost x 40 percent applicable tax rate). Bank A

records the following journal entries for these tax effects:

Deferred tax expense \$36,720

Deferred tax asset \$36,720 To reverse the deferred tax asset for the temporary difference associated with stock options that have been exercised.

Current taxes payable \$40,800 Current tax expense \$36,720 Additional paid in conital \$4,080

Additional paid-in capital \$4,080 To adjust current taxes payable and current tax expense for the tax benefit realized from the exercise of stock options and the tax effects of the recognized compensation cost, and to credit the resulting excess tax benefit to additional paid-in capital.

On December 31, 2011, when the price per share of Bank A's stock has fallen to \$67, the remaining 5,100 options are exercised. Bank A records journal entries similar to the first two that it recorded above for the stock options exercised one year earlier. However, Bank A's tax deduction for the options exercised in 2011 is \$86,700 [5,100 options x (\$67 -50], which is less than the 91,800compensation cost recognized for the options exercised (5,100 options x \$18 grant date fair value). Although Bank A has generated sufficient taxable income in 2011 to fully use the tax deduction and the resulting \$34,680 realized tax benefit (\$86,700 tax deduction x 40 percent applicable tax rate), Bank A has a tax deficiency because this realized tax benefit is less than the previously recognized \$36,720 deferred tax asset associated with the 5,100 options exercised (\$91,800 compensation cost x 40 percent applicable tax rate). Because the exercise of the stock options in 2010 generated an excess tax benefit of \$4,080 that was credited to additional paid-in capital, Bank A has an "APIC pool" sufficient to absorb the tax deficiency without having to charge any of the deficiency to current period

earnings. The bank would reflect this outcome in the following journal entry:

Current taxes payable \$34,680

Additional paid-in capital Current tax expense \$36,720 To adjust current taxes payable and current tax expense for the tax benefit realized from the exercise of stock options and the tax effects of the recognized compensation cost, and to charge the resulting tax deficiency against additional paid-in capital.

In the compensation cost example involving Bank B, the stock options had graded vesting. Bank B's accounting for the exercise of stock options would, in concept, be comparable to Bank A's accounting. However, the graded vesting approach adds a degree of complexity. In this regard, the FASB notes that unless Bank B

identifies and tracks the specific tranche from which share options are exercised, it would not know the recognized compensation cost that corresponds to exercised share options for purposes of calculating the tax effects resulting from that exercise. If an entity does not know the specific tranche from which share options are exercised, it should assume that options are exercised on a first-vested, first-exercised basis (which works in the same manner as the first-in, firstout basis for inventory costing).

Examination Considerations

All banks that award stock options to officers or other employees as part of their compensation must adopt FAS 123(R) for financial reporting purposes, including for their Reports of Condition and Income (Call Reports), as of the effective date of the standard (January 1, 2006, for most banks). When examining a bank that awards a significant number of employee stock options, examiners should gain an understanding of the bank's methods of accounting for the options both before and after the effective date of FAS 123(R), as well as the transition method used for options awarded before the effective date. This understanding will assist the examiner in assessing how the compensation cost of these options affects the bank's earnings and equity capital, particularly when analyzing the bank's earnings trends. Examiners should also recognize that the stock option compensation cost reflected in a bank's income statement is a noncash expense.

Since most banks applied the intrinsic value method of accounting for employee stock options before the effective date of FAS 123(R), these banks will not have included any compensation cost in their "salaries and employee benefits" in 2005 and earlier years.¹⁶ If such a bank is not a public company or a subsidiary of a public company, it will continue to apply the intrinsic value method to employee stock options awarded before 2006 that continue to vest in 2006 and subsequent years unless a previous award is modified. Therefore, a "nonpublic bank" will not begin to reflect any compensation cost in its earnings until it grants a new employee stock option award. In contrast, if the bank is a public company or a subsidiary of a public company and has pre-2006 employee stock options that were not fully vested at the end of 2005, this "public bank" must begin to include the compensation cost of these options in its earnings in 2006 even though it previously applied the intrinsic value method to these options. Therefore, even if the bank does not grant any new employee stock options in 2006, stock option compensation cost will be reflected in its income statement in 2006 and subse-

¹⁶ For stock options awarded to directors for their services as directors, compensation cost for options would be reported with other forms of directors' compensation in "other noninterest expense" rather than in "salaries and employee benefits."

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quent years until its pre-2006 options are fully vested.

Under FAS 123(R), all public banks, as well as nonpublic banks that used the fair-value-based method of accounting for employee stock options for recognition or disclosure purposes under FAS 123 prior to 2006, are permitted to adjust prior years' financial statements as if this method had been applied since FAS 123 took effect (the modified retrospective application transition method). However, as noted in the Call Report instructions, "[b]ecause each Report of Income covers a single discrete period, retroactive restatement of prior years' Reports of Condition and Income is not permitted."¹⁷ If a bank applies modified retrospective application for other financial reporting purposes, it should adjust the 2006 beginning balances of additional paid-in capital (surplus), deferred taxes, and retained earnings for Call Report purposes, and it should report the net effect of these adjustments on total equity capital at the beginning of 2006 as a direct adjustment to capital in the Call Report schedule of changes in equity capital (Schedule RI-A).

For a bank that regularly grants stock options to employees, including in 2006, and previously used the intrinsic value

method of accounting for these options, an analysis of its earnings will show an increase in "salaries and employee benefits" in 2006 compared to prior years that is attributable to the newly required recognition of compensation cost under FAS 123(R). Whether the 2006 earnings for such a bank include the compensation cost only for options granted in 2006 or also include the cost for any notvet-fully-vested pre-2006 options depends on whether the bank is public or nonpublic. Examiners should therefore consider the impact of the change in accounting for employee stock options when assessing the trend in overhead and overall earnings over periods that include the transition year of 2006.

In addition, banks are encouraged to prepare a profit plan and budget that addresses the current year and the next operating year. Because all banks that award stock options in 2006 and beyond must recognize compensation cost based on the grant date fair value of the options (and certain banks must do so for pre-2006 awards that vest in 2006 and beyond), examiners should ensure that such banks have adjusted their budgeting process so that projections of "salaries and employee benefits" conform to the requirements of FAS 123(R).

Effect of Compensation Cost of NSOs on Regulatory Capital			
	Equity Capital Prior to Recording Entries Related to Stock Compensation Cost	Entries Related to Stock Option Compensation Cost	Equity Capital After Recording Entries Related to Stock Compensation Cost
Common stock (no par value)	\$10,000,000		\$10,000,000
Additional paid-in capital (surplus)		\$61,200	61,200
Retained earnings	7,000,000	(61,200)ª <u>24,480</u> ^b	6,963,280
Accumulated other comprehensive income	<u>(1,000,000)</u>		(1,000,000)
Total equity capital	\$16,000,000	\$24,480	\$16,024,480
^a Compensation cost ^b Deferred tax expense			

Table 7

¹⁷ See the Glossary entry for "Accounting Changes" on page A-1 of the Call Report instructions.

Although the accounting for stock options under FAS 123(R) results in the recognition of compensation cost that reduces earnings, there is generally a corresponding credit to equity capital (additional paid-in capital) on a bank's balance sheet. Furthermore, for NSOs, after recording the tax effects of the compensation cost, the overall effect of these entries, in most cases, is an increase in the bank's Tier 1 capital.¹⁸ This favorable regulatory capital outcome for NSOs can be illustrated by showing the effects of Bank A's compensation cost and deferred tax journal entries for 2006 (from earlier in this article) on the equity capital section of Bank A's balance sheet (see Table 7).

Finally, when reviewing financial statements submitted by a bank's borrowers, examiners should be aware that these borrowers must also apply the fair-valuebased accounting requirements of FAS 123(R) to stock options and other sharebased payment arrangements with employees beginning, in general, in 2006. As mentioned above, the compensation cost of these arrangements is a noncash expense and therefore has no effect on the borrowers' cash flow.

Robert Storch

FDIC Chief Accountant, Washington, DC

¹⁸ Tier 1 capital would not increase if a valuation allowance had to be established for the entire deferred tax asset associated with the stock options under FAS 109 or if the incremental increase in the bank's net deferred tax assets was disallowed under the banking agencies' regulatory capital limit on deferred tax assets.