

# FASB Technical Bulletin No. 97-1

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Accounting under Statement 123 for Certain  
Employee Stock Purchase Plans with a  
Look-Back Option

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**Financial Accounting Standards Board**

of the Financial Accounting Foundation

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# FTB 97-1: Accounting under Statement 123 for Certain Employee Stock Purchase Plans with a Look-Back Option

## Reference:

FASB Statement No. 123, *Accounting for Stock-Based Compensation*, paragraphs 23 and 24, 232–242, and 348–356

## Introduction

1. The accounting guidance in this Technical Bulletin addresses the accounting under Statement 123 for certain employee stock purchase plans (ESPPs) with a look-back option. An example of a *look-back option* is a provision in an ESPP that establishes the purchase price as an amount based on the lesser of the stock's market price at the grant date or its market price at the exercise (or purchase) date. This Technical Bulletin does not address the accounting for those plans under APB Opinion No. 25, *Accounting for Stock Issued to Employees*. It also does not address the effect of those plans on earnings per share calculations.<sup>1</sup>

2. Paragraph 23 of Statement 123 establishes the criteria under which an ESPP should be evaluated to determine whether it qualifies for noncompensatory treatment. If a plan does not meet *all* of those criteria, the fair value method of accounting must be used. Paragraph 24 notes that a plan provision such as a look-back option is one feature that causes an ESPP to be considered compensatory. Paragraph 239 explains in part the Board's rationale:

The Board considered respondents' requests that broad-based plans with look-back options be considered noncompensatory and noted that a look-back option can have substantial value because it enables the employee to purchase the stock for an amount that could be significantly less than the market price at date of purchase. A look-back option is not an essential element of a broad-based plan aimed at promoting broad employee stock ownership; a purchase discount also provides inducement for participation. The Board concluded that broad-based plans that contain look-back options cannot be treated as noncompensatory.

3. Paragraph 17 of Statement 123 states that the objective of the fair value measurement

method is to estimate the fair value of the equity instruments, based on the stock price and other measurement assumptions at the grant date, that are issued in exchange for employee services. That objective also applies to the fair value measurements associated with grants under a compensatory ESPP and is the basis for the approach described in Illustration 9 of Statement 123. However, many ESPPs with a look-back option have features in addition to or different from those of the plan described in Illustration 9. For example, some plans contain multiple purchase periods, others contain reset mechanisms, and still others allow changes in the withholding amounts or percentages after the grant date.

4. The following are examples of some of the more common types of ESPPs with a look-back option that currently exist and the features that differentiate each type:

- a. *Maximum number of shares:* This type of plan permits an employee to have withheld a fixed amount of dollars from the employee's salary (or a stated percentage of the employee's salary) over a one-year period to purchase stock. At the end of the one-year period, the employee may purchase stock at 85 percent of the lower of the grant date stock price or the exercise date stock price. If the exercise date stock price is lower than the grant date stock price, the employee may *not* purchase additional shares (that is, the maximum number of shares that may be purchased by an employee is established at the grant date based on the stock price at that date and the employee's elected withholdings); any excess cash is refunded to the employee. This is the basic type of ESPP illustrated in Statement 123 and is referred to as the Type A plan for purposes of this Technical Bulletin.
- b. *Variable number of shares:* This type of plan is the same as the Type A plan except that the employee may purchase as many shares as the full amount of the employee's withholdings will permit, regardless of whether the exercise date stock price is lower than the grant date stock price. (Type B plan)
- c. *Multiple purchase periods:* This type of plan permits an employee to have withheld a fixed amount of dollars from the employee's salary (or a stated percentage of the employee's salary) over a two-year period to purchase stock. At the end of each six-month period, the employee may purchase stock at 85 percent of the lower of the grant date stock price or the exercise date stock price based on the amount of dollars withheld during that period. (Type C plan)
- d. *Multiple purchase periods with a reset mechanism:* This type of plan is the same as the Type C plan except that the plan contains a "reset" feature if the market price of the stock at the end of any six-month purchase period is lower than the stock price at the original grant date. In that case, the plan "resets" so that during the next purchase period an employee may purchase stock at 85 percent of the lower of the stock price at (1) the beginning of the purchase period (rather than the original grant date price) or (2) the exercise date. (Type D plan)
- e. *Multiple purchase periods with a rollover mechanism:* This type of plan is the same as the Type C plan except that the plan contains a "rollover" feature if the market price of the stock at the end of any six-month purchase period is lower than the stock price at the original grant date. In that case, the plan is immediately canceled after that purchase date, and a new

two-year plan is established using the then-current stock price as the base purchase price. (Type E plan)

- f. *Multiple purchase periods with semifixed withholdings:* This type of plan is the same as the Type C plan except that the amount (or percentage) that the employee may elect to have withheld is not fixed and may be changed (increased or decreased) at the employee's election immediately after each six-month purchase date for purposes of all future withholdings under the plan. (Type F plan)
- g. *Single purchase period with variable withholdings:* This type of plan permits an employee to have withheld an amount of dollars from the employee's salary (or a stated percentage of the employee's salary) over a one-year period to purchase stock. That amount (or percentage) is not fixed and may be changed (increased or decreased) at the employee's election at any time during the term of the plan for purposes of all future withholdings under the plan. At the end of the one-year period, the employee may purchase stock at 85 percent of the lower of the grant date stock price or the exercise date stock price. (Type G plan)
- h. *Multiple purchase periods with variable withholdings:* This type of plan combines the characteristics of the Type C and Type G plans in that there are multiple purchase periods over the term of the plan and an employee is permitted to change (increase or decrease) withholding amounts (or percentages) at any time during the term of the plan for purposes of all future withholdings under the plan. (Type H plan)
- i. *Single purchase period with variable withholdings and cash infusions:* This type of plan is the same as the Type G plan except that an employee is permitted to remit "catch-up" amounts to the company when (and if) the employee increases withholding amounts (or percentages). The objective of the cash infusion feature is to permit an employee to increase withholding amounts (or percentages) during the term of the plan and remit an amount to the company such that, on the exercise date, it appears that the employee had participated at the new higher amount (or percentage) during the entire term of the plan. (Type I plan)

The distinguishing characteristic between the Type A plan and the Type B plan is whether the maximum number of shares that an employee is permitted to purchase is fixed at the grant date based on the stock price at that date and the expected withholdings. Each of the remaining plans described above (Type C through Type I plans) incorporates the features of either a Type A plan or a Type B plan. The above descriptions are intended to be representative of the types of features commonly found in many existing plans. The accounting guidance in this Technical Bulletin should be applied to all plans with characteristics similar to those described above.

## Question 1

5. Illustration 9 of Appendix B of Statement 123 provides the only specific guidance on measuring the compensation cost associated with an award under a compensatory ESPP with a look-back option. Does the fair value measurement technique specifically described in Illustration 9 appropriately value awards under all types of ESPPs with a look-back option?

## Response

6. No. The measurement approach described in Illustration 9<sup>2</sup> of Statement 123 was developed to illustrate how the fair value of an award under a basic type of ESPP with a look-back option could be determined at the grant date by focusing on the substance of the arrangement and valuing separately each feature of the award. Although that general technique of valuing an award as the sum of the values of its separate components applies to all types of ESPPs with a look-back option, the fundamental components of an award may differ from plan to plan thus affecting the individual calculations. For example, the measurement approach described in Illustration 9 assumes that the maximum number of shares that an employee may purchase is fixed at the grant date based on the grant date stock price and the employee's elected withholdings (that is, the Type A plan described in paragraph 4 of this Technical Bulletin). That approach needs to be modified to appropriately determine the fair value of awards under the other types of plans described in paragraph 4, including a Type B plan, that do not fix the number of shares that an employee is permitted to purchase.

## Background

7. Although many ESPPs with a look-back option initially limit the maximum number of shares of stock that the employee is permitted to purchase under the plan (Type A plans), other ESPPs (Type B plans) do not fix the number of shares that the employee is permitted to purchase if the exercise date stock price is lower than the grant date stock price. In effect, an ESPP that does not fix the number of shares that may be purchased has guaranteed that the employee can always receive the value associated with *at least* 15 percent of the stock price at the grant date (the employee can receive much more than 15 percent of the grant date value of the stock if the stock appreciates during the look-back period). That provision provides the employee with the equivalent of a put option on 15 percent of the shares with an exercise price equal to the stock price at the grant date. In contrast, an employee who participates in a Type A plan is only guaranteed 15 percent of *the lower of* the stock price as of the grant date or the exercise date, which is the equivalent of a call option on 85 percent of the shares (as described more fully in paragraph 352 of Statement 123). A participant in a Type B plan receives the equivalent of both a put option and a call option.

8. The following example illustrates that fundamental difference.

**Assumptions**

On January 1, 20X0, when its stock price is \$50, Company S offers its employees the opportunity to sign up for a payroll deduction to purchase its stock at the lower of either 85 percent of the stock's current price or 85 percent of the stock price at the end of the year when the options expire. Thus, the exercise price of the options is the lesser of (a) \$42.50 ( $\$50 \times 85$  percent) or (b) 85 percent of the stock price at the end of the year when the option is exercised. Two employees each agree to have \$4,250 withheld from their salaries; however, Employee A is *not* allowed to purchase any more shares than the \$4,250 would buy on the grant date (that is, 100 shares ( $\$4,250/\$42.50$ )) and Employee B is permitted to buy as many shares as the \$4,250 will permit under the terms of the plan. In both cases, the 15 percent purchase price discount at the grant date is worth \$750 (100 shares  $\times$  \$50  $\times$  15 percent). Depending on the stock price at the end of the year, the value of the 15 percent discount for each employee is as follows:

	<b><u>Stock Price at the End of the year</u></b>	<b><u>Number of Shares Purchased</u></b>	<b><u>Value of the 15 Percent Discount</u></b>
<i>Scenario 1:</i> <sup>3</sup>			
• Employee A (Type A plan)	\$60	100	\$1,750
• Employee B (Type B plan)	\$60	100	\$1,750
<i>Scenario 2:</i> <sup>4</sup>			
• Employee A (Type A plan)	\$50	100	\$ 750
• Employee B (Type B plan)	\$50	100	\$ 750
<i>Scenario 3:</i> <sup>5</sup>			
• Employee A (Type A plan)	\$30	100	\$ 450
• Employee B (Type B plan)	\$30	167	\$ 750
<i>Scenario 4:</i> <sup>6</sup>			
• Employee A (Type A plan)	\$10	100	\$ 150
• Employee B (Type B plan)	\$10	500	\$ 750

As illustrated above, both awards provide the same value to the employee if the stock price at the exercise date has increased (or remained unchanged) from the grant date stock price. However, the award under the Type B plan is more valuable to the employee if the stock price at the exercise date has decreased from the grant date stock price because it guarantees that the employee always will receive at least 15 percent of the stock price at the grant date, whereas the award under the Type A plan only guarantees that the employee will receive 15 percent of the ultimate (lower) stock purchase price.



## Question 2

9. How should the Illustration 9 measurement approach be modified to determine the fair value of an award under an ESPP with a look-back option that does not fix the number of shares that an employee is permitted to purchase (that is, a Type B plan)?

## Response

10. Using the component measurement approach described in Illustration 9 of Statement 123 as the base, the additional feature associated with a Type B plan that should be included in the fair value calculation is 15 percent of a put option on the employer's stock (valued by use of a standard option-pricing model, using the same measurement assumptions that were used to value the 85 percent of a call option). If the plan in Illustration 9<sup>7</sup> had the provisions of a Type B plan (that is, a plan that does not fix the number of shares that may be purchased), the fair value of the award would be calculated at the grant date as follows:

• 0.15 of a share of nonvested stock ( $\$50 \times 0.15$ )	\$ 7.50
• One-year call on 0.85 of a share of stock, exercise price of \$50 ( $\$7.56 \times 0.85$ )	6.43
• One-year put on 0.15 of a share of stock, exercise price of \$50 ( $\$4.27 \times 0.15$ ) <sup>8</sup>	<u>0.64</u>
Total grant date fair value	\$14.57

11. In each of the examples in this Technical Bulletin, total compensation cost would be measured at the grant date based on the number of shares that can be purchased using the estimated total withholdings and market price of the stock as of the grant date, and not based on the potentially greater number of shares that may ultimately be purchased if the market price declines. In other words, assume that on January 1, 20X0, Employee A elects to have \$850 withheld from his pay for the year to purchase stock. Total compensation cost for the Type B plan award to Employee A would be \$291 ( $\$14.57 \times 20$  grant-date-based shares [ $\$850/\$42.50$  <sup>9</sup>]).

2. Illustration 9 of Statement 123 does not take into consideration the effect of interest forgone by the employee on the fair value of an award for which the exercise price is paid over time (for instance, through payroll withholdings). Awards for which part or all of the exercise price is paid before the exercise date are less valuable than awards for which the exercise price is paid at the exercise date, and it is appropriate to recognize that difference in applying Statement 123. However, for simplicity and to be consistent with Illustration 9, the effect of forgone interest is not reflected in the fair value calculations for the examples in this Technical Bulletin.

### Question 3

13. As noted in paragraph 4, the characteristics associated with either a Type A plan or a Type B plan are incorporated in other ESPPs with a look-back option. The measurement approach described in Illustration 9 of Statement 123 (for the Type A plan) as modified in Question 2 of this Technical Bulletin (for the Type B plan) forms the basis for determining the fair value of awards under the other types of ESPPs with a look-back option. What additional modifications are necessary to determine the fair value of awards under the other types of ESPPs described in paragraph 4?

### Response

#### Type C Plan

14. In substance, an ESPP with multiple purchase periods (a Type C plan) is a series of linked awards, similar in nature to how some view a graded vesting stock option plan. Accordingly, the fair value of an award under an ESPP with multiple purchase periods should be determined at the grant date in the same manner as an award under a graded vesting stock option plan. Under the graded vesting approach, awards under a two-year plan with purchase periods at the end of each year would be valued as having two separate option tranches both starting on the initial grant date (using the Illustration 9 approach if the plan has the characteristics of a Type A plan or using the Question 2 [modified Illustration 9] approach if the plan has the characteristics of a Type B plan) but with different lives of 12 and 24 months, respectively. All other measurement assumptions would need to be consistent with the separate lives of each tranche.

15. For example, if the plan in Illustration 9 was a two-year Type C plan with purchase periods at the end of each year, the fair value of each tranche of the award would be calculated at the grant date as follows:

*Tranche No. 1:*

• 0.15 of a share of nonvested stock ( $\$50 \times 0.15$ )	\$ 7.50
• One-year call on 0.85 of a share of stock, exercise price of \$50 ( $\$7.56 \times 0.85$ ) <sup>10</sup>	<u>6.43</u>
Total grant date fair value of the first tranche	<u>\$13.93</u>

*Tranche No. 2:*

• 0.15 of a share of nonvested stock ( $\$50 \times 0.15$ )	\$ 7.50
• Two-year call on 0.85 of a share of stock, exercise price of \$50 ( $\$11.44 \times 0.85$ ) <sup>11</sup>	<u>9.72</u>
Total grant date fair value of the second tranche	<u>\$17.22</u>

### **Types D, E,F, G, and H Plans**

16. The basic measurement approach described above for a Type C plan also should be used to value awards under ESPPs with multiple purchase periods that incorporate reset or rollover mechanisms (that is, Type D and Type E plans). The fair value of those awards initially can be determined at the grant date using the graded vesting measurement approach. However, at the date that the reset or rollover mechanism becomes effective, the terms of the award have been modified (the exercise price has been decreased and, for a grant under a Type E plan, the term of the award has been extended) which, in substance, is similar to an exchange of the original award for a new award with different terms. Statement 123 modification accounting should be applied at the date that the reset or rollover mechanism becomes effective to determine the amount of any incremental fair value associated with the modified grant.

17. Likewise, although not a change to the terms of the ESPP, an election by an employee to increase withholding amounts (or percentages) for future services (Type F through Type H plans) is a modification of the terms of the award to that employee, which, in substance, is similar to an exchange of the original award for a new award with different terms. Accordingly, the fair value of an award under an ESPP with variable withholdings should be determined at the grant date (using the Type A, Type B, or Type C measurement approach, as applicable) based on the estimated amounts (or percentages) that a participating employee initially elects to withhold under the terms of the plan. Subsequent to the grant date (except as noted in paragraph 23), any increases in withholding amounts (or percentages) for future services should be accounted for as a plan modification in accordance with the guidance in paragraph 35 of Statement 123.

18. Paragraph 35 of Statement 123 explains the approach that should be used to account for a modification of the terms of an award as follows:

A modification of the terms of an award that makes it more valuable shall be treated as an exchange of the original award for a new award. In substance, the

entity repurchases the original instrument by issuing a new instrument of greater value, incurring additional compensation cost for that incremental value. The incremental value shall be measured by the difference between (a) the fair value of the modified option determined in accordance with the provisions of this Statement and (b) the value of the old option immediately before its terms are modified, determined based on the shorter of (1) its remaining expected life or (2) the expected life of the modified option.

19. To illustrate, if the plan described in paragraph 15 allowed an employee to elect to change withholdings at the end of the first year, modification accounting would be applied at the date the employee elected to increase withholdings to determine the amount, if any, of incremental compensation cost. Assume that on January 1, 20X0, Employee A initially elected to have \$850 per year withheld from his pay for each purchase period. However, at the end of year 1 when the stock price is \$60 (and assume that no other factors have changed), Employee A elects to have a total of \$1,275 withheld for the second purchase period. At that date, \$1,275 is equivalent to 30 shares eligible for purchase at the end of the second year (\$1,275/\$42.50). At the date Employee A elects to increase withholdings, modification accounting should be applied to determine the amount of any incremental fair value associated with the modified award as follows:<sup>12</sup>

*Fair value of the old option (Tranche No. 2) before modification:*

• 0.15 of a share of nonvested stock ( $\$60 \times 0.15$ )	\$ 9.00
• One-year call on 0.85 of a share of stock, exercise price of \$50 ( $\$15.10 \times 0.85$ )	<u>12.84</u>
Total fair value of each option	<u>\$21.84</u>
Number of grant date shares ( $\$850/\$42.50$ )	<u><math>\times 20</math></u>
Total fair value	<u>\$ 437</u>

*Fair value of the new option after modification:*

• 0.15 of a share of nonvested stock ( $\$60 \times 0.15$ )	\$ 9.00
• One-year call on 0.85 of a share of stock, exercise price of \$50 ( $\$15.10 \times 0.85$ )	<u>12.84</u>
Total fair value of each option	<u>\$21.84</u>
Number of modification date shares ( $\$1,275/\$42.50$ )	<u><math>\times 30</math></u>
Total fair value	<u>\$ 655</u>
Incremental compensation	<u>\$ 218</u>

20. Any decreases in the withholding amounts (or percentages) should be disregarded for purposes of recognizing compensation cost unless the employee services that were valued at the grant date will no longer be provided to the employer due to a termination. However, no

compensation cost should be recognized for awards that an employee forfeits because of failure to satisfy a service requirement for vesting. The accounting for decreases in withholdings is consistent with the requirement in paragraph 26 of Statement 123 that the total amount of compensation cost that must be recognized for an award is based on the number of instruments that vest rather than the number of instruments that are either granted or exercised.

### **Type I Plan**

21. As with all ESPPs, the objective of the measurement process for ESPPs with a look-back option is to reasonably measure the fair value of the award at the grant date. Unlike Type F through Type H plans, which permit an employee to increase withholding amounts (or percentages) only prospectively, the Type I plan permits an employee to make a retroactive election to increase withholdings. Under a Type I plan, an employee may elect not to participate (or to participate at a minimal level) in the plan until just before the exercise date, thus making it difficult to determine when there truly is a mutual understanding of the terms of the award, and thus the date at which the grant occurs. For example, assume that the Type A ESPP in Illustration 9 permits an employee to remit "catch-up" amounts (up to a maximum aggregate withholding of 15 percent of annual salary) to Company S at any time during the term of the plan. On January 1, 20X0, Employee A elects to participate in the plan by having \$100 (0.04 percent) of her \$250,000 salary withheld monthly from her pay over the year. On December 20, 20X0, when the stock price is \$65, Employee A elects to remit a check to Company S for \$36,300, which, together with the \$1,200 withheld during the year, represents 15 percent of her salary.

22. In that situation, December 20, 20X0 is the date at which Company S and Employee A have a mutual understanding of the terms of the award in exchange for the services already rendered and Company S becomes contingently obligated to issue equity instruments to Employee A upon the fulfillment of vesting requirements. The fair value of the entire award to Employee A is therefore measured as of December 20, 20X0.

### **Other Plan Features**

23. Changes in total employee withholdings during a purchase period that occur solely as a result of salary increases, commissions, or bonus payments are not plan modifications if they do not represent changes to the terms of the award that was offered by the employer and initially agreed to by the employee at the grant (or measurement) date. Under those circumstances, the only incremental compensation cost is that which results from the additional shares that may be purchased with the additional amounts withheld (using the fair value calculated at the grant date). For example, an employee may elect to participate in the plan on the grant date by requesting that 5 percent of the employee's annual salary be withheld for future purchases of stock. If the employee receives an increase in salary during the term of the award, the base salary on which the 5 percent withholding amount is applied will increase, thus increasing the total amount withheld for future share purchases. That increase in withholdings as a result of the

salary increase is not considered a plan modification and thus only increases the total compensation cost associated with the award by the grant date fair value associated with the incremental number of shares that may be purchased with the additional withholdings during the period. The incremental number of shares that may be purchased is calculated by dividing the incremental amount withheld by the exercise price as of the grant date (85 percent of the grant date stock price).

24. In some circumstances, applying the measurement approaches described in this Technical Bulletin at the grant date may not be practicable for certain types of ESPs. For example, an entity may not have access at a reasonable cost to the modeling capabilities needed to determine the fair value of plans with features in addition to or different from those described in this Technical Bulletin. If it is *not practicable* to reasonably estimate fair value at the grant date, the guidance in paragraph 22 of Statement 123 would apply.<sup>13</sup> Paragraph 22 of Statement 123 states:

If it is not possible to reasonably estimate the fair value of an option or other equity instrument at the grant date, the final measure of compensation cost shall be the fair value based on the stock price and other pertinent factors at the first date at which it is possible to reasonably estimate that value. Generally, that is likely to be the date at which the number of shares to which an employee is entitled and the exercise price are determinable. Estimates of compensation cost for periods during which it is not possible to determine fair value shall be based on the current intrinsic value of the award, determined in accordance with the terms that would apply if the option or similar instrument had been currently exercised.

## **Effective Date and Transition**

25. The provisions of this Technical Bulletin are effective for stock-based awards granted, renewed, or modified on or after January 1, 1998.

## **Appendix : CONSIDERATION OF COMMENTS RECEIVED ON THE PROPOSED TECHNICAL BULLETIN**

26. The proposed FASB Technical Bulletin No. 97-a, *Accounting under Statement 123 for Certain Employee Stock Purchase Plans with a Look-Back Option*, was released for comment on April 21, 1997. Thirteen comment letters were received on the proposed Technical Bulletin. Most respondents supported issuing the Technical Bulletin. A few suggested certain clarifications, which have been incorporated.

27. Several respondents commented that modification accounting is not appropriate for Type F, through Type H plans when an employee elects to increase withholdings. In their view, a modification does not occur when an employee elects to increase withholdings under existing plan provisions that permit that election because there has been no change to the terms of the plan that were offered by the employer and agreed to by the employee at the grant date. Most of the respondents who opposed modification accounting suggested that changes in withholdings should be accounted for similarly to estimating the number of awards that will vest in accordance with paragraph 28 of Statement 123.

28. The accounting described in paragraph 28 of Statement 123 is appropriate only for situations in which employee terminations or satisfaction-of-performance criteria affect the number of awards to which employees are entitled. That accounting was not intended to apply to employee decisions about the extent to which they avail themselves of awards to which they already are entitled.

29. Under Type F through Type H plans, the employer and employees have a mutual understanding at the grant date (January 1, 20X0 for the example in paragraph 19 of this Technical Bulletin) of the terms of the award for future services to be rendered, and the employer becomes contingently obligated to issue equity instruments to the employee upon the fulfillment of vesting requirements. This Technical Bulletin clarifies that an election by an employee to increase withholding amounts (or percentages) under the plan (although not a change to the *terms of the ESPP*) is a modification of the *terms of the award* to that employee. Paragraphs 187-195 of Statement 123 discuss the Board's conclusions on modifications. Paragraph 187 states, "An employer and employee may agree to *modify the terms of an award of stock options or similar instruments*" (emphasis added).

30. As stated in paragraph 35 of Statement 123, a modification is, in substance, the repurchase of the original instrument by issuing a new instrument of greater value. When an employee increases withholdings, the result of the modification is essentially the grant of an additional award. The effect of applying the modification accounting described in paragraph 35 of Statement 123 when an employee increases withholdings is equivalent to treating the increased

number of shares that the employee is entitled to as a new grant as of the date of the modification. (Refer to the example in paragraph 19. The incremental compensation could also have been determined by computing the fair value at January 1, 20X1, of the 10 additional options [ $10 \times \$21.84$ ].) Accordingly, this Technical Bulletin concludes that any increases in the withholding amounts (or percentages) by an employee (in other than a Type I plan) subsequent to the grant date should be accounted for as a plan modification in accordance with the guidance in paragraph 35 of Statement 123.

31. Several respondents requested additional clarification as to why the "call" and "put" option approach is used to value awards under ESPPs with a look-back option. The following explains the rationale for each of the components:

### **15 Percent of a Share**

An option with an exercise price that equals 85 percent of the value of the stock at the exercise date will always be worth 15 percent ( $100 - 85$ ) of the stock price upon exercise. For a stock that pays no dividends, that option is the equivalent of 15 percent of a share of stock. For instance, an employee in the example in paragraph 8 of this Technical Bulletin would always receive in value the equivalent of 15 shares ( $15 \text{ percent} \times 100 \text{ shares}$ ).

### **The "Call" Feature**

If the stock price upon exercise is more than the grant date stock price, the employee receives a benefit for the difference between the exercise date stock price and the exercise price of the option. For instance, if the stock price upon exercise is \$60, an employee in the example in paragraph 8 receives a benefit of \$17.50 per share ( $\$60 - \$42.50$ ) or a total of \$1,750 ( $\$17.50 \times 100 \text{ shares}$ ). Nine hundred dollars of the total value at exercise represents the equivalent of 15 shares ( $15 \times \$60$ ). The remaining \$850 of value is the same as that which would result if the employee had held an option to purchase 85 additional shares at an exercise price of \$50 per share [ $85 \times \$10 (\$60 - \$50)$ ].

### **The "Put" Feature**

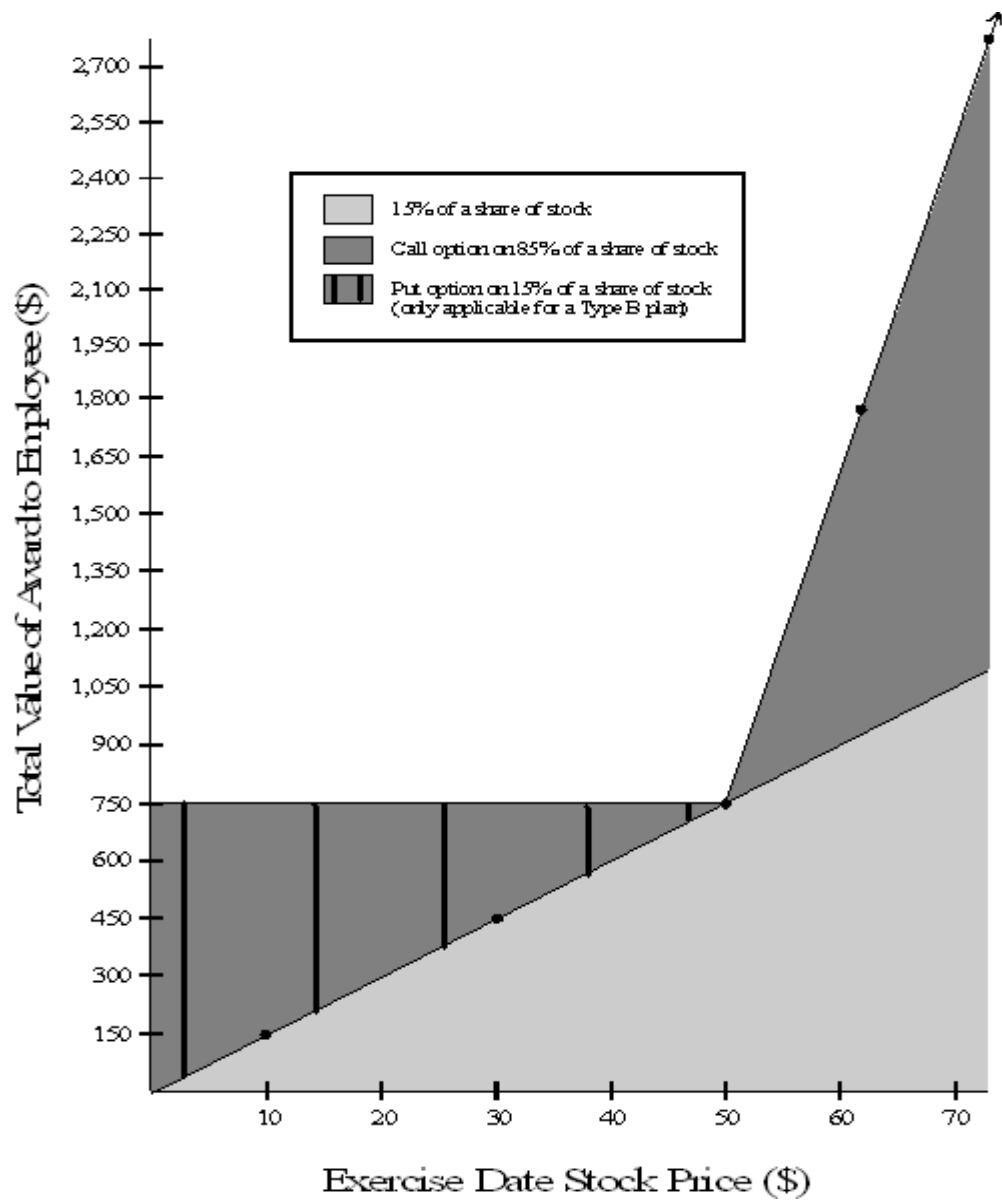
Under a Type B plan, in which the number of shares the employee is permitted to purchase is not fixed and the stock price upon exercise is less than the grant date stock price, the employee has all of the benefits of an award under a Type A plan *plus more*. The employee may, in essence, "put" the equivalent of 15 percent of a share to the company in exchange for the grant date stock price. For instance, when the stock price upon exercise is less than \$50, Employee B in the example in paragraph 8 may, in essence, "put" the 15 shares to Company S in return for \$50 per share. The value of the award to Employee B is \$750 ( $15 \text{ shares} \times \$50$ ) whenever the stock price is less than \$50 at the exercise date.



32. The following illustrates the total value of the awards to Employee A and Employee B in the example in paragraph 8 by analysis of the awards' components when the exercise date stock price is \$10, \$30, \$50, \$60, and \$70, respectively:

	<u>X</u>	<u>Y</u>	<u>X+Y</u>	<u>Z</u>	<u>X+Y+Z</u>
	15% of a				
<b>Stock Price</b>	<b>Share (15 Shares = 0.15 x 100 Shares)</b>	<b>Call on 85 Shares at \$50/Share</b>	<b>Total Value Employee A</b>	<b>Put on 15 Shares at \$50/Share</b>	<b>Total Value Employee B</b>
\$10	\$150 (\$10 × 15)	\$0 (out of money)	<b>\$ 150</b>	\$600 [15 × (\$50 – \$10)]	<b>\$750</b>
\$30	\$450 (\$30 × 15)	\$0 (out of money)	<b>\$ 450</b>	\$300 [15 × (\$50 – \$30)]	<b>\$750</b>
\$50	\$750 (\$50 × 15)	\$0 [85 × (\$50 – \$50)]	<b>\$ 750</b>	\$0 [15 × (\$50 – \$50)]	<b>\$750</b>
\$60	\$900 (\$60 × 15)	\$850 [85 × (\$60 – \$50)]	<b>\$1,750</b>	\$0 (out of money)	<b>\$1,750</b>
\$70	\$1,050 (\$70 × 15)	\$1,700 [85 × (\$70 – \$50)]	<b>\$2,750</b>	\$0 (out of money)	<b>\$2,750</b>

The above information could also be depicted using the following graph:



33. Some respondents questioned how a Type I plan was so different from the other plans (Type F through Type H) that modification accounting would not be appropriate, for the example in paragraph 21, when the employee elects to make the \$36,300 contribution on December 20, 20X0. As stated in paragraph 29, any changes to the terms of an award for future services to be rendered results in a modification of the terms of the original award to the employee. In the Type I example, the change relates to past services rendered. In other words, in that example there has not been a change in the terms of the award for future services. Rather, the employer and the employee do not agree to the terms of the award for the employee's services rendered since January 1, 20X0, until December 20, 20X0. In that example, because the employee's initial election is *de minimis*, it is appropriate to defer final measurement of the entire award until agreement has been reached as to the substantive terms of the award to the employee.

The Financial Accounting Standards Board has authorized its staff to prepare FASB Technical Bulletins to provide guidance on certain financial accounting and reporting problems on a timely basis, pursuant to the procedures described in FASB Technical Bulletin No. 79-1 (Revised), *Purpose and Scope of FASB Technical Bulletins and Procedures for Issuance*. The provisions of Technical Bulletins need not be applied to immaterial items.

## Footnotes

FTB97-1, Footnote 1--Paragraphs 30-35 of FASB Statement No. 128, *Earnings per Share*, provide that guidance.

FTB97-1, Footnote 2--The examples in Illustration 9 of Statement 123 and this Technical Bulletin illustrate the use of the Black-Scholes option pricing model. It also may be acceptable to use a binomial option pricing model to value an award under an ESPP with a look-back option.

FTB97-1, Footnote 3--The purchase price in this scenario would be \$42.50 ( $\$50 \times 0.85$ ) because the stock price increased during the withholding period.

FTB97-1, Footnote 4--The purchase price in this scenario would be \$42.50 ( $\$50 \times 0.85$ ) because the stock price at the end of the period was the same as the stock price at the beginning of the period.

FTB97-1, Footnote 5--The purchase price in this scenario would be \$25.50 ( $\$30 \times 0.85$ ) because the stock price decreased during the withholding period.

FTB97-1, Footnote 6--The purchase price in this scenario would be \$8.50 ( $\$10 \times 0.85$ ) because the stock price decreased during the withholding period.

FTB97-1, Footnote 7--The fair value of the Type A ESPP award described in Illustration 9 is determined as follows:

• 0.15 of a share of nonvested stock ( $\$50 \times 0.15$ )	\$ 7.50
• One-year call on 0.85 of a share of stock, exercise price of \$50 ( $\$7.56 \times 0.85$ )	<u>6.43</u>
Total grant date fair value	\$13.93
	=====

FTB97-1, Footnote 8--Other assumptions are the same as those used to value the call option; \$50 stock price, an expected life of 1 year, expected volatility of 30 percent, risk-free interest rate of 6.8 percent, and a zero dividend yield.

FTB97-1, Footnote 9--For purposes of determining the number of shares on which to measure compensation cost, the stock price as of the grant date less the discount, or  $\$50 \times 85$  percent, is used.

FTB97-1, Footnote 10--The other assumptions are \$50 stock price, an expected life of 1 year, expected volatility of 30 percent, risk-free interest rate of 6.8 percent, and a zero dividend yield (same assumptions as in footnote 8). To simplify the illustration, the fair value of each of the tranches is based on the same assumptions about volatility, the risk-free interest rate, and expected dividend yield. In practice, each of those assumptions would be related to the expected life of the respective tranche, which means that at least the risk-free interest rate, and perhaps all three assumptions, would differ for each tranche.

FTB97-1, Footnote 11--Refer to footnote 10.

FTB97-1, Footnote 12--Determined based on the fair value measurements at the date of the modification using the then-current stock price. To simplify the illustration, the fair value at the modification date is based on the same assumptions about volatility, the risk-free interest rate, and expected dividend yield as at the grant date.

FTB97-1, Footnote 13--Paragraph 22 of Statement 123 addresses circumstances in which the characteristics of the instrument prevent grant date measurement using available option pricing models rather than circumstances in which an entity considers the amount of recordkeeping involved to be excessive.