Sidebar 1

Accounting for Stock Options with Service Condition

On January 1, 2006, Company B grants 1 million stock options to substantially all of its employees at an exercise price of $25 (market price at that date). All options vest on December 31, 2010, under a cliff vesting arrangement. Company B expects 2% of the options to be forfeited each year. For illustration purposes only, assume that Company B prepares only annual financial statements.

Step 1: Estimate the fair value of one option at the measurement date. Company B applies the lattice method using the share price at the grant date, the exercise price, the contractual term of the option plan, and assumptions such as the expected risk-free interest rate, the expected volatility, expected dividend yield, and suboptimal exercise factor. (The exact amounts are omitted for simplicity.) Company B determines the option price to be $10, which will not change unless the terms are subsequently modified.

Step 2: Calculate total compensation cost. Company B first determines the total compensation cost related to the plan, which is the number of options expected to vest times the fair value of $10. Company B recognizes as expense the fair value of the options made available to its employees, as opposed to the number of options actually exercised. Expected expirations due to "underwater" options do not affect compensation cost. Because it expects an annual 2% forfeiture rate (reflecting matters such as employees terminating their employment prior to vesting), Company B expects 903,921 options to vest (1 million options times 0.98 to the fifth power). On this basis, Company B estimates total compensation cost at $9,039,210.

Step 3: Determine the requisite service period. Company B considers the five-year vesting period as the requisite service period because the award has only a service (and no performance) condition.

Step 4: Allocate that cost over the requisite service period or when certain conditions are met. Company B will recognize a cost over the five-year requisite service (vesting) period, which is $1,807,842 ($9,039,210 ÷ 5) for the year ended December 31, 2006, and will record the following journal entry:

Compensation cost	$1,807,842	
Additional paid-in capital: employee options		$1,807,842

Company B identifies the additional paid-in capital in a separate subsidiary account to simplify the accounting when the employees convert the options.

Step 5: Estimate any income-tax effect. Based on its incremental tax rate of 35%, Company B records a deferred income-tax asset of $632,745 (35% x $1,807,842) as of December 31, 2006:

Deferred tax asset	$632,745	
Deferred tax benefit		$632,745

This deferred tax asset will be adjusted every period to reflect expected realization, as required by SFAS 109, *Accounting for Income Taxes*.

Please note that if the contractual terms or forfeiture rate do not change, the journal entries in steps 3 and 4 above will be the same each of the following years of the vesting period.

Step 6: Adjust the cost and income-tax effect as a change in estimate to reflect changes in options expected to vest. At December 2009, several executives leave Company B and forfeit their 100,000 options. Company B also reviews the expected forfeiture rate and determines that 800,000 options will ultimately vest. Company B accounts for this as a change in estimate and recognizes the cumulative effect in the period of change.

Company B first determines the revised ultimate total compensation cost, which is $8 million (800,000 x $10). The original fair value of the option ($10) is not revised.

Company B next determines the periodic compensation cost based on the revised amount ($8 million) rather than the original estimate ($9,039,210). The cost of $1,600,000 per year ($8 million ÷ 5) is the amount Company B would have recognized if it knew at the grant date that 800,000 options would vest. The revision covers the three years already recognized, 2006, 2007, and 2008. The cost for 2009 is not yet recorded. The change in estimate is the difference between the revised cumulative amount and the cumulative amount already recognized.

Cumulative original cost ($1,807,842 x 3)	$5,423,526
Cumulative revised cost ($1,600,000 x 3)	4,800,000
Adjustment to expense at 12/31/09	$ 623,526

The journal entries recording the change in estimate, including the reversal of the tax benefit (35% x $623,526), are as follows:

Additional paid-in capital: employee options	$623,526	
Compensation cost		$623,526
Deferred tax benefit	$218,234	
Deferred tax asset		$218,234

At December 31, 2009, Company B also records the following journal entries, including the tax benefit (35% x $1,600,000):

Compensation cost	$1,600,000	
Additional paid-in capital: employee options		$1,600,000
Deferred tax asset	$560,000	
Deferred tax benefit		$560,000

For the year ending December 31, 2009, Company B records a net compensation cost of $976,474 ($1,600,000 – $623,526) and a net deferred tax benefit of $341,766 ($560,000 – $218,234).

At December 31, 2010, Company B will record compensation cost reflecting the number of actual forfeitures, and adjust the cumulative expense to reflect the actual number of vested options.

During the year ended December 31, 2011, employees convert 100,000 options into common stock, which has a par value of $.01. Company B records the following journal entry:

Cash (100,000 shares at $25)	$2,500,000	
Additional paid-in capital: employee options (100,000 options at $10)	$1,000,000	
Common stock (100,000, $.01 par)		$ 1,000
Additional paid-in capital		$3,499,000