



## RADFORD ALERT

### Accelerated Vesting of Underwater Options: Understanding or Discovering the Hidden Accounting

Companies are considering accelerating vesting of time-based underwater stock options to take the benefit of moving forward future stock option compensation expense into the current reporting period. Some recent examples of companies taking this action are [Dell](#) and [Linear Technology](#)<sup>1</sup>.

At first glance, companies conclude that the acceleration causes an immediate recognition of unamortized option expense into the current quarter. However, there are some hidden accounting consequences to consider prior to taking this action. Unfortunately, it is not as simple as immediately recognizing all unamortized compensation expense for these awards due to a number of factors. There are challenges involved in determining the amount of incremental cost due to the modification, and also in the timing of the recognition.

First, let's focus on the amount of incremental cost. Broadly, the accelerated options can be categorized in two ways:

<b>Category 1</b>	Expected to Vest; and
<b>Category 2</b>	<i>Not</i> Expected to Vest (due to an underlying forfeiture rate or reduction) All companies are required to apply a forfeiture rate to the accrual of expense for time-based options under Topic 718

The accounting rules under Topic 718 require slightly different treatment. The first category of options, those that are expected to vest, are considered a Type 1 modification (Probable-to-Probable), and require a calculation of the incremental fair value on the date of modification. Since the only difference in fair value immediately before the modification and immediately after the modification is a shorter vesting schedule, then the value immediately after the modification will *always* be less than the value immediately before, due to a shortened expected term. Therefore, there is no incremental cost associated with this modification.

The second category of options, those that are not expected to vest, are considered a Type 3 modification (Improbable-to-Probable). Recall that no compensation expense for these options has been accrued to date, since they are not expected to vest. Therefore, the value immediately before the modification is zero, and the value immediately after should be recognized. It is expected that the value immediately after the modification will be less than the original grant-date fair value (since the stock price has decreased, and the awards are now underwater). See illustration in 718-20-55-121.

<sup>1</sup> Note that on 2/6/2009, Linear Technology announced in a 10Q that the unamortized expense will be spread over 2.5 years.

Next we need to determine the period at which the expense should be recognized over. Again, unfortunately, it is not as simple as recognizing the expense immediately. Topic 718 states in the definition of a **derived service period**:

*“Further, an award of fully vested, deep out-of-the money share options as a derived service period that must be determined from the valuation techniques used to estimate fair value.”*

Therefore, an underwater option has some underlying derived service period until it can become exercisable, since logically the participant would not exercise an underwater option. 718-10-55-67 states:

*“Likewise, if an award with an explicit service condition that was at-the-money when granted is subsequently modified to accelerate vesting at a time when the award is deep out-of-the-money, that modification is not substantive because the explicit service condition is replaced by a derived service period.”*

There is some discussion regarding what defines “deep out-of-the-money”; however, theoretically all underwater awards have some period of time until they will become “exercisable.” If an award is considered “deep out-of-the money,” then the modification can be deemed non-substantive and companies should consider continuing to amortize over the original service period. If an award is not considered “deep out-of-the-money,” then the new award should be recognized over the new derived service period. The true question is how to objectively define “deep out-of-the-money”. *Author’s commentary: We would anticipate that external auditors will broadly categorize most awards as “deeply” out-of-the-money, and therefore the modification can be ignored because it would be non-substantive. All expense would continue under the original vesting schedule, and companies can avoid the other technical accounting issues.*

A derived service period is inferred from the application of a valuation model, and it represents the duration of the median of the distribution of price paths on which the stock price is satisfied. Realistically, this requires Monte Carlo simulation to determine. However, it should be noted that since these awards are out-of-the-money, it is possible that the derived service period is longer than the original service period. For illustrative purposes, the chart below estimates the derived service period for various underwater levels (as a percentage of the strike price), with a range of expected volatilities<sup>2</sup>.

		Derived Service Period (Years)					
In-The-Money Ratio (Market Price Divided by Strike)	90%	0.8	0.4	0.3	0.3	0.3	0.2
	80%	1.8	1.1	0.8	0.6	0.4	0.3
	70%	3.2	2.0	1.4	1.0	0.8	0.6
	60%	4.5	3.0	2.1	1.6	1.2	0.9
	50%	5.7	4.0	3.0	2.3	1.8	1.4
	40%	6.8	5.1	4.0	3.1	2.4	2.0
	30%	7.8	6.3	5.1	4.0	3.3	2.7
	20%	8.6	7.3	6.2	5.3	4.3	3.7
	10%	9.3	8.4	7.7	6.7	5.8	5.0
		20%	30%	40%	50%	60%	70%
		Expected Volatility					

<sup>2</sup> For simplicity, we have used a Risk-Free Rate of 3.00%, and a 0% dividend yield. Note that derived service periods will decrease as the Risk-Free Rate increases, and the derived service period will increase as the dividend yield increases.

Since the derived service period is considered part of the requisite service period, if an employee terminates prior to the duration of the derived service period, the expense accrual for that terminated employee can be reversed. If the stock price increases to be at-the-money or greater, then all unamortized compensation should be accelerated.

**An Example with Company ABC**

Company ABC granted 1,000,000 options on January 1, 2008 when the stock price was \$10. Each option had a grant-date fair value of \$5.00 to be amortized over a four-year cliff vesting period. Therefore, the total compensation expense to be accrued should be \$5,000,000 if all options were to vest.

At the end of the fiscal year, Company ABC calculates the expected number of awards to vest as follows:

$$1,000,000 \times (1 - .10)^3 = 729,000$$

Therefore during 2008, Company ABC recognizes compensation expense of \$911,250 calculated as follows:

$$\frac{729,000 \times \$5}{4} = \$911,250$$

On January 1, 2009, Company ABC accelerated the vesting of all options when the stock price is \$2. Further, it is not believed that the accelerated awards are “deeply” out-of-the- money. The fair value of the options on the modification date is \$1<sup>3</sup>.

Company ABC needs to recognize unamortized compensation expense for the options that were expected to vest of \$2,733,750 calculated as follows:

$$729,000 \times \$5 - \$911,250 = \$2,733,750$$

Further, Company ABC needs to recognize expense for the 271,000 options that were *not* expected to vest. Since the fair value of those options on the modification date was \$1 per option, Company ABC now needs to recognize an additional \$271,000 of expense. Through use of Monte Carlo simulation, Company ABC determines that the derived service period of the new underwater options is four years. Therefore, the incremental expense should be amortized over four years.

If you assume that all options would have vested under the original vesting schedule, then the total cumulative expense of the options would be (a detailed illustration can be found as an Appendix):

	Number	Cumulative FAS 123(R) Expense Necessary Prior to Modification	Cumulative FAS 123(R) Expense Necessary After Modification
Options Expected To Vest	729,000	\$3,280,500	\$3,645,000
Options Not Expected To Vest	271,000	\$1,719,500	\$271,000
<b>Total</b>	<b>1,000,000</b>	<b>\$5,000,000</b>	<b>\$3,916,000</b>

<sup>3</sup> Note that the fair value on the modification date should consider the exercise behavior of optionees given the “moneyness” (the options are underwater) and expected termination rates.

“Accelerated vesting of underwater options may deliver some accounting benefit to a company, but frequently compromises the equity plan’s retention objectives, and is usually performed at a time of poor market and/or company performance. These actions can be counter to the long-term performance view of shareholders, including the belief that options should be a reward to employees for value creation.”

Note that Company ABC has accomplished the following objectives:

- > Re-amortized future compensation expense over the new derived service period
- > Reduced the cumulative Topic 718 expense by (\$1,084,000) through accelerating the vesting (note that some forfeitures would have occurred with the original options, which would reduce the cumulative expense taken under the award). This example assumes that all 1,000,000 of the original options **actually** would vest.

These clear financial benefits need to be balanced against HR strategies and governance principles:

- > Would employees perceive the accelerated vesting as a benefit?
- > If the company's stock price returns to normal valuations in the next 12 to 24 months, have we lost the retention value of the historic grants requiring significant new equity to be issued?
- > How will institutional investors react to accelerating vesting on employee grants given the strong downturn in the stock price? And are there future consequences with the action by shareholders when seeking approval for future shares or plan modifications?

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## Locations

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## Illustration of Amortization

Detailed Illustration of Amortization of Compensation Expense						
	Pre-Modification	Post-Modification				Total
	2008	2009	2010	2011	2012	
Original Amortization*	\$911,250	\$1,113,750	\$1,350,000	\$1,625,000	\$0	\$5,000,000
New Amortization						
Category 1 - Expected To Vest Awards	\$911,250	\$436,489	\$584,111	\$756,338	\$956,813	\$3,645,000
Category 2 - Not Expected To Vest Awards	\$0	\$49,390	\$60,365	\$73,170	\$88,075	\$271,000
<b>Total</b>	<b>\$911,250</b>	<b>\$485,879</b>	<b>\$644,477</b>	<b>\$829,508</b>	<b>\$1,044,888</b>	<b>\$3,916,000</b>

\*Assumes Company ABC reconciles forfeiture experience annually on the last day of the Calendar Year