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RADFORD ALERT

Underwater Option Exchanges: Navigating Through Topic 718 and Type I Through Type IV Accounting

There is a wealth of resources already available addressing the current underwater stock option environment. Most of this information, including Radford's own ongoing research includes an array of information on our Exchange Portal (www.UnderwaterExchange.com), focuses on offering an exchange program to employees that allow them to tender their underwater options for a specified lower number of at-the-money replacement options. As challenging as designing the tender offer may be, the subsequent accounting needs equal attention.

An underwater exchange is considered a modification under Topic 718 (formerly FAS123(R)). Any difference between the fair value *immediately before* and the fair value *immediately after* needs to be recognized as incremental compensation expense. Most current exchange programs include a provision that extends the vesting requirements to address shareholder concerns and bolster the retention argument, yet this extension also makes the Topic 718 accounting more complex. This summary provides a roadmap for determining the appropriate treatment of the modified awards and associated incremental expense.

An Overview

When vesting conditions are modified, then the Topic 718 treatment can be categorized as one of four (4) possibilities:

Type I	Probable to Probable
Type II	Probable to Improbable
Type III	Improbable to Probable
Type IV	Improbable to Improbable

The unique aspect of an underwater exchange is that each of the four types of vesting modifications may occur in a single underwater exchange. We have provided an example below to illustrate the various treatments.

Illustrative Example: Company ABC

Company ABC has several outstanding underwater stock options with strike prices ranging from \$20 to \$40. Company ABC common stock currently trades at \$10 on 4/1/2009. The offer to employees is the ability to exchange outstanding underwater stock options as follows:

- > Options with a strike price between \$20 and \$29.99 can be exchanged at a 1.5:1 ratio; and,
- > Options with a strike price \$30 and above can be exchanged at a 2.0:1 ratio.

Company ABC requires that all new awards after the exchange will have four years of cliff vesting. In summary, the old and new options will have the following characteristics:

Terms and Conditions of Options									
Old Option Conditions						New Option Conditions			
Grant	Vest	#	Strike	Ratio	Grant	Vest	#	Strike	
1/1/2007	1/1/2011	1,000	\$20.00	1.50 :1	4/1/2009	4/1/2013	667	\$10.00	
1/1/2006	1/1/2010	2,000	\$35.00	2.00 :1	4/1/2009	4/1/2013	1,000	\$10.00	
4/1/2006	4/1/2010	500	\$38.00	2.00 :1	4/1/2009	4/1/2013	250	\$10.00	
11/1/2006	11/1/2010	5,000	\$22.00	1.50 :1	4/1/2009	4/1/2013	3,334	\$10.00	

Let's first define the Number of Old awards for each record i as N_i^O and the Number of New awards as N_i^N . On 4/1/2009, Company ABC anticipates that 10% of their employees will terminate annually, and therefore assume a 10% pre-vesting forfeiture rate, F . Let's also define the Time to Vest of the *old* awards as TV_i^O , and the Time to Vest of the new awards as TV_i^N .

For each record i , we first must determine the number of awards Expected to Vest of the *old* awards (EV_i^O), the number of awards *not* Expected to Vest of the *old* awards (NV_i^O). Further, we must calculate the number of awards Expected to Vest of the *new* awards (EV_i^N), the number of awards *not* Expected to Vest of the *new* awards (NV_i^N). These can be calculated as:

$$EV_i^O = (1 - F)^{TV_i^O} \times N_i^O$$

$$EV_i^N = (1 - F)^{TV_i^N} \times N_i^N$$

$$NV_i^O = N_i^O - EV_i^O$$

$$NV_i^N = N_i^N - EV_i^N$$

From our prior example, we have calculated these as:

Modification Date	Before Modification			After Modification		
	Expect To Vest EV_i^O	Not Expect to Vest NV_i^O	Total	Expect To Vest EV_i^N	Not Expect to Vest NV_i^N	Total
4/1/2009	831.42	168.58	1,000.00	437.62	229.38	667.00
4/1/2009	1,847.48	152.52	2,000.00	656.10	343.90	1,000.00
4/1/2009	450.03	49.97	500.00	164.03	85.98	250.00
4/1/2009	4,230.92	769.08	5,000.00	2,187.44	1,146.56	3,334.00

Now that we've laid the groundwork, we can focus on the subsequent accounting distinctions between Type I through Type IV. For purposes of these next sections, let's also define the variable R_i , which represents the exchange ratio for that record. To start, we will need to calculate the number of new and old awards for each record i that fall into each of the below classifications, $T1_i^O, T1_i^N, T2_i^O, T2_i^N, T3_i^O, T3_i^N, T4_i^O$, and $T4_i^N$.

Type I – Probable to Probable Modifications

A Type I modification requires that the total compensation expense of the new awards cannot be less than the grant-date fair value of the original awards. Further, any incremental expense should be amortized over the new service period.

Using our example before, the number of awards that would be considered Type I are calculated as follows:

$$T1_i^O = \text{Min}(EV_i^O, EV_i^N \times R_i);$$

$$T1_i^N = T1_i^O \div R_i$$

Type I – Probable to Probable						
Before Modification			After Modification			Incremental
# ($T1_i^O$)	FV ¹	Total	# ($T1_i^N$)	FV	Total	
656	\$3.52	\$2,313	438	\$4.53	\$1,981	\$0
1,312	\$2.26	\$2,971	656	\$4.53	\$2,970	\$0
328	\$2.10	\$689	164	\$4.53	\$743	\$53
3,281	\$3.29	\$10,809	2,187	\$4.53	\$9,903	\$0

Treatment of Expense Amortization

Prior Recognized Expense – Per FASB Resource Group of 5/26/2005, may either continue amortization of old award or alternatively recognize total unamortized expense over new service period. Administrative challenges exist if opt to recognize unamortized expense over new service period.

New Incremental Expense – Recognize instrument over new Service Period

Type II – Probable to Improbable Modifications

Topic 718 identifies Type II modifications to be “rare”. However, underwater exchanges are a common place to see Type II modifications. The number of awards in this category can be calculated as follows:

$$T2_i^O = EV_i^O - T1_i^O;$$

$$T2_i^N = T2_i^O \div R_i$$

The Topic 718 accounting implications for the Type II awards can be summarized as follows:

¹ All Fair Values are calculated using the Black-Scholes model based on a current stock price of \$10, an expected volatility of 50%, a Risk-Free Rate of 2%, a 0% dividend yield, and an expected life ranging from 5-7 years (an original grant date expected life of 6 years, an expected life of 7 years for the underwater awards on the modification date, and an expected life of 5 years for the at-the-money awards on the modification date).

Type II – Probable to Improbable						
Before Modification			After Modification			Incremental
# ($T2_i^O$)	FV	Total	# ($T2_i^N$)	FV	Total	
175	\$3.52	\$617	117	\$4.53	\$528	\$0
535	\$2.26	\$1,212	268	\$4.53	\$1,212	\$0
122	\$2.10	\$256	61	\$4.53	\$276	\$20
950	\$3.29	\$3,129	633	\$4.53	\$2,866	\$0

Treatment of Expense Amortization

Prior Recognized Expense – Since FV of original was Probable of Vesting, then the total recognized compensation cost should at least equal the FV of the original award

New Incremental Expense – Recognize instrument over new Service Period when starts to become Probable

Type III – Improbable to Probable Modifications

Although Type III modifications are common in other situations (acceleration of vesting), it is less common to see a Type III modification during an underwater exchange.

$$T3_i^O = \text{Max}(0, EV_i^N \times R_i - EV_i^O);$$

$$T3_i^N = T3_i^O \div R_i$$

Using our example prior, there are no awards that are categorized as Type III, since all awards now have longer vesting restrictions.

Type III – Improbable to Probable						
Before Modification			After Modification			Incremental
# ($T3_i^O$)	FV	Total	# ($T3_i^N$)	FV	Total	
0	\$3.52	\$0	0	\$4.53	\$0	\$0
0	\$2.26	\$0	0	\$4.53	\$0	\$0
0	\$2.10	\$0	0	\$4.53	\$0	\$0
0	\$3.29	\$0	0	\$4.53	\$0	\$0

Treatment of Expense Amortization

Prior Recognized Expense – None has been recognized to date since Improbable

New Incremental Expense – Recognize New FV over new Service Period (all of the FV is incremental). The value of original award is no longer relevant

Type IV – Improbable to Improbable Modifications

Type IV modifications are the category of modifications that most commonly gets ignored and inappropriately treated. One wouldn't think that a Type IV modification could have such an impact, but given the substantial drop in market, it can yield a significant savings.

718-20-55-107 states, "if the entity believes that the original performance or service vesting condition is not probable of achievement at the date of the modification, the cumulative compensation cost related to the modified award, assuming vesting occurs under the modified performance or service vesting condition, is the modified award's fair value at the date of the modification."

To start, first we need to calculate the expected number of awards within Type IV as follows:

$$T4_i^O = \text{Min}(NV_i^O, NV_i^N \times R_i);$$

$$T4_i^N = T4_i^O \div R_i$$

In summary of these awards, they should be accounted for as following.

Type IV – Improbable to Improbable						
Before Modification			After Modification			Incremental
# ($T4_i^O$)	FV	Total	# ($T4_i^N$)	FV	Total	
169	\$3.52	\$594	112	\$4.53	\$509	\$0
153	\$2.26	\$345	76	\$4.53	\$345	\$0
50	\$2.10	\$105	25	\$4.53	\$113	\$0
769	\$3.29	\$2,533	513	\$4.53	\$2,321	\$0

Treatment of Expense Amortization

Prior Recognized Expense – None has been recognized to date since Improbable

New Incremental Expense – Recognize New FV over new Service Period (all of the FV is incremental) when starts to become Probable. The value of original award is no longer relevant.

However, when comparing the new Fair Values to the original Grant Date Fair Values, we see the following:

Old	Original	Total	New	New	Total
Number	FV	Expense	Number	FV	Expense
169	\$9.84	\$1,659	112	\$4.53	\$509
153	\$17.22	\$2,627	76	\$4.53	\$345
50	\$18.70	\$934	25	\$4.53	\$113
769	\$10.83	\$8,326	513	\$4.53	\$2,321
TOTAL		\$13,546			\$3,288

Note that the new Fair Values are significantly lower and the total compensation expense can be dramatically reduced. For example, the compensation expense for the Fair Values based on the exchange date are over \$10,000 lower in this simplistic example. That represents a reduction of 9.45% of the original Grant Date fair values, and a reduction of 23.48% of the unamortized expense as of the modification date.

Note that these reductions are specific to this one specific example. Actual reductions will largely be a function of the proximity to vesting, the forfeiture rate applied, and the magnitude of the drop in stock price.

	Old			New			
	Amort.	Unamort.	Total	Amort.	Unamort.	Incram.	Total
Type I	\$48,022	\$22,694	\$70,716	\$48,022	\$22,694	\$53	\$70,770
Type II	\$16,370	\$7,134	\$23,504	\$16,370	\$7,134	\$20	\$23,524
Type III	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Type IV	\$0	\$13,546	\$13,546	\$0	\$0	\$3,288	\$3,288
Total	\$64,392	\$43,375	\$107,767	\$64,392	\$29,828	\$3,361	\$97,582
Reduction in Total Expense							-9.45%
Reduction in Unamortized Expense							-23.48%

One motivation of an underwater exchange is to improve retention. Companies should be aware that there could be increased compensation expense, due to a lack of forfeitures. In the example above, if the Type IV awards, which were originally expected to be forfeited, actually do vest, then additional expense needs to be recognized for those awards. Therefore, if the awards do vest and an expense needs to be recognized, companies should make sure to recognize the lower fair value based on the modification date.

Summary

Practically speaking, due to the complexity of this accounting, most administrative systems or accounting software do not consider the effect of distinctions between Type I, II, III, or Type IV modifications. Instead, it is our understanding that most systems treat ALL awards as Type I modifications, which would likely be overstating the ongoing unamortized expense (for a substantial drop in stock prices). The actual treatment under the written guidance of Topic 718 as described above may not have a material effect compared against the general simplifying assumption to warrant the additional complexity in accounting. However, in the example above, it was illustrated to be quite material.

There are a significant number of HR, governance, and other factors that influence a company's decision to move forward with an underwater option exchange. Generally, we don't believe companies should design compensation strategies based on the accounting. However, interestingly enough, there are ways to design a typical "value-for-value" or "cost-neutral" exchange program that can yield substantial cost savings and can be "cost-beneficial".

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Terry Adamson is senior vice president of Radford Valuation Services, the equity valuation group of Aon Consulting, and has nearly fifteen years of benefit and compensation consulting experience. Terry is involved with all phases of equity compensation valuations including design of executive packages; valuation of compensatory arrangements for purposes of a change in control under IRC 280G; sabbatical valuations under FAS 43/EITF 06-2; and Employee Stock Option (ESO) valuations and Employee Stock Purchase Plans under FAS 123(R). Additionally, Terry consults with clients on issues involving all aspects of a company's benefit and equity programs in mergers, acquisitions and divestitures.

As National Practice Leader for Radford's ESO valuation practice and the lead project manager, Terry manages a team of valuation experts and is responsible for the completion of quarterly FAS 123(R) accounting valuations in addition to being the primary client contact. Some of his current clients are 3M, Altera Corp, AMD, Applied Materials, Bank of New York, McDonald's, Prudential Financial, Symantec, UnitedHealth Group, US Bank, and Wells Fargo Bank.

Terry recently co-authored articles in: Tax Management Compensation Planning Journal, "Golden Parachutes - New Planning Opportunities" and "Executive Compensation Audits - Planning Now to Avoid Trouble Later;" Benefits Quarterly, "Employee Stock Options - New Valuation Responsibilities and Planning Opportunities;" WorldatWork Journal, "Performance Equity Plans: The Design and Valuation Under FAS123(R);" The Journal of Employee Ownership Law and Finance, "A Technical Roadmap to Expense Allocation Under FAS123(R);" and Compensation and Benefits Review, "No Vacation on Sabbatical Plan Accounting."

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