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Rising Market Volatility Doesn't Always Mean Your Equity Plan Costs Have to Go Up

Increasing stock market volatility often leads to an increase in equity plan cost, but key plan design features and methodologies can provide important cost-saving safeguards.

August 25, 2015, was a rough day for Wall Street: the Dow plunged an unprecedented 1,000 points in early trading, the S&P 500 tumbled into correction mode for the first time since 2011, and the CBOE Volatility Index (^VIX)— a popular measure of the implied volatility of S&P 500 index publicly-traded options— hit levels that it had not reached since 2011. At this time, it appears the only thing that can be said with any certainty in the markets is that we are in uncertain times.

There are several factors contributing to the volatility in the market, and chief among them is China. The country's stock market has been artificially propped up by the government and finally shows signs of cracking. Economic growth has slowed in China and is having a ripple effect across many other areas of Asia. Greece's economic situation has put the Eurozone on shaky ground, while investors in the US are worried about a looming tax rate hike. Even as governments across the globe work to restore calm in the stock markets, volatility may not be going away as investors parse through what the different economic conditions mean for the near-term future of the stock market.

Impact on Equity Plans

Since many of the equity vehicles used to compensate employees rely on pricing models to determine the grant date fair value, this increased volatility can significantly affect your plan cost. Expected volatility is typically an input into the valuation models for many equity types and it's also one of the largest drivers of fair value. Given the correlation between volatility and fair value, this higher market volatility will have an unfavorable impact on the cost of your equity plans, especially if you are using a methodology focusing on short or near-term volatility, such as implied volatility. Approximately two-thirds of our clients report using an expected volatility for their fair value calculations that incorporates implied volatility.

Below is an illustration of the potential impact to the valuation of an option using the standard Black-Scholes model. In this example we are using the average implied volatility for the thirty companies in the Dow Jones Industrial Average prior to and during the recent market swing, holding all other inputs constant. The 28.88% rise in volatility results in a 23.75% increase to the grant's fair value. It's also important to note that the Dow Jones Industrial Average has been more stable than the average publicly-traded company lately— meaning that most companies are likely experiencing greater fluctuations in volatility, and therefore, more pressure on their equity plan costs.

Sample Illustration of the Impact Volatility has on Fair Value				
Valuation Date	**Stock Price**	**Volatility**	**Fair Value**	**Percentage of Grant**
August 4, 2015	$100.00	19.29%	$18.55	18.55%
August 25, 2015	$100.00	24.86%	$22.96	22.96%

Next Steps

One solution to reduce the burden on equity plan costs is to choose a volatility methodology that is more robust against market swings like the one we are experiencing now. Expected volatility is typically comprised of two different types: (1) historical volatility usually analyzed over longer periods of time, such as five years; and (2) implied volatility, which is a measure of the volatility of options currently trading in the open market and is short-term in nature. Implied volatilities, because they focus on shorter periods, can fluctuate more significantly on a day-to-day basis, yielding very low and favorable volatilities when the market is predictable, and very high and expensive volatilities when the market is fluctuating. The recent one-day change in the ^VIX index from around 25% to above 50% is an example of how fast implied volatilities can change. If your company's approach places a significant amount of weight on implied volatility, you could see fair values increase significantly as the stock market experiences large one-day swings in price.

In addition to building historical volatility into your equity plan cost methodology, companies can also implement the use of a total value cap as a way to control for short-term volatility. These caps limit the value earned under the equity instrument as a specified multiple of the target grant date value. As we explain in our article, Radford Review: Using Capped Options to Collar Volatility, the implementation of these caps can yield significant reductions in fair value. These reductions are still significant when the cap is set at a level that is believed to be unlikely by plan participants, which can help offset the increase in volatility everyone is experiencing now.

The recent wild swings in stock indices are a reminder that the market won't rise forever without bumps in the road that lead to increased volatility. This is why it's important for companies to protect themselves against unnecessary rises in equity plan costs by implementing safeguards that protect against certain levels of uncertainty.

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