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VALUING EMPLOYEE STOCK OPTIONS

Employee Stock Options (ESOs) can be a sizable, and often overlooked, personal asset. Since the late 1980s, many middle and upper level executives have received ESOs. Once known as Executive Stock Options, ESOs are now more commonly granted to all levels of management. For example, MCI, the long distance telephone carrier, recently gave stock options to more than 4,500 of its mid-level managers. Some small publicly-traded, high-tech companies give stock options to all employees. Often, these smaller businesses do not have adequate cash flow to support larger salaries and they are more frequently providing compensation through options.

An Employee Stock Option is defined as a contract which creates the right -- but not the obligation -- for the holder of the option to purchase the company's stock at a stipulated price. This right is granted for a specific length of time.

A common misconception about the value of Employee Stock Options is that the price of an option is best measured by its intrinsic value. Intrinsic value is the difference between the exercise price set forth in the option (the price at which the employees can purchase the underlying stock) and the stock's current market price. For example, the intrinsic value of an option with an exercise price of \$15 per share and a current underlying stock price of \$20 per share is \$5 per option.

This intrinsic value, however, can significantly understate the value of this asset. In many cases, options with no intrinsic value (when the exercise price is at or above the market price of the underlying stock) can still have considerable worth.

Consider the following example: An employee is given a stock option that expires in ten years. Each option grants a right for the holder to purchase one share of the company's stock at \$10 per share, the stock price at the time the option is issued. On the date that option is issued, it has no intrinsic value since its trading price is equal to the exercise price. However, the option still has value. If the stock price rises to \$100 per share over the next year, the holder of the option can purchase the underlying stock for \$10 per share and generate a \$90 per share gain. Alternatively, the option owner could continue to hold this right for another nine years.

The option has value even if the exercise price is \$10 per share and the current stock price is \$5 per share (referred to as an option that is out-of-the-money). Value is created here because the employee receiving the option has only an upside with little to no downside. The option holder acquires the right to a future benefit with no current cash outlay. Value is created with this right to purchase the stock at a fixed price for little or no risk. Knowledgeable investors pay for this right even when the option has no intrinsic value.

Valuation. There are several approaches to valuing Employee Stock Options. In the financial community, one of the most frequently used methods is the Black-Scholes Option Pricing Model. Although its full explanation is beyond the scope of this article, several variables impacting this model and the value of the ESO are set forth below:

- Option's duration. Most ESOs have terms of five to ten years. A longer time period increases the likelihood of the underlying stock price exceeding the option's exercise price. Hence, a longer window to exercise the option creates more value.
- Current stock price. The closer the current stock price comes to meeting or exceeding the grant price, the more valuable the option becomes.
- Volatility of the stock price. The more movement in the price of the stock, the more likely it is that the stock's price will rise above the exercise price. Hence, a stock's greater volatility increases the value of the option.
- Interest rates. Options present the opportunity for a person to reap the benefits of increasing per share

value without risking the current per share price. This money that would be used to purchase the stock at the current price can be invested in risk-free instruments to ensure a guaranteed return. A higher current risk-free interest rate adds more value to an option.

- Dividend yield. An option to purchase a given stock does not entitle the holder to the stock's dividends. The option holder will miss out on any dividends paid to actual shareholders. Dividends, therefore, have a negative impact on the value of an option.

With the exception of future stock price volatility, most of these variables are easily observed in the marketplace.

The following example demonstrates the value of an option by using this model. An option has the following characteristics:

X It is for 10 years

X The current price of the underlying stock is \$25.00

X The exercise price is \$25.00

X The risk free interest rate is 5 percent

X The stock's volatility is 20 percent per month

X The stock pays no dividends

The Black-Scholes model produces a value of \$19.75 per option. This compares to an intrinsic value of \$0 per option. The duration of the option greatly affects its price. Holding all other factors constant and changing the option's life to 10 years to 1 year reduces its value to \$7.24 per option.

Another approach to valuing an Employee Stock Option is to identify publicly traded options with similar characteristics. Stock options currently trade on many of the regional exchanges, including Chicago, Philadelphia, and the Pacific Exchange. However, these options are often much shorter in duration than ESOs, with most options expiring in less than a year. In addition, these options are freely transferable, which may not necessarily be the case with Employee Stock Options. (The long-term nature of ESOs are often used as incentives to induce the company's employees to continue employment with the company.) Because of the difficulties in finding truly comparable publicly traded options, the practical application in using this approach to valuing ESOs is limited.

Conclusion. There continues to be a common misconception that the value of an Employee Stock Option is best measured by its intrinsic value. Using this approach, however, could lead to a significant understatement of the value of this asset. Understating an option's value can have significant implications in a marital dissolution or in estate planning and tax matters. It is important to realize a stock option can have considerable value even though its exercise price may be at or above the market price of the underlying stock. A qualified financial professional should be consulted for the valuation of ESOs.

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