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PRIMER

Recent History of Employee Stock Options

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Employee stock options have increasingly grown in popularity during the 1990s. In this, the second primer in a series of briefs on employee stock options, we explain the evolution of employee stock options and the cost and benefits to employers and employees with the growth of employee stock options in a naturally volatile market.

I. Tracing the Evolution of Employee Stock Options

Perhaps the birth of the recent surge in employee stock option programs can be traced back to 1957. In 1957, eight young semiconductor whiz-kids left Shockley Semiconductor Laboratories because of poor management and started their own company. However, they were short the funds. They eventually received start-up equity from Fairchild Camera & Instrument, of Syossett, NY, on the condition that the upfront equity would provide a right the buy the new start-up if things went well. Things did go well, and Fairchild bought out the founders, leaving each with $250,000 in Fairchild Semiconductors' stock.

Inspired by the prospect for equity gains realized by the founders of Fairchild Semiconductors, many employees began leaving various employers to start new companies in Silicon Valley. Employers, in order to retain employees and prevent a mass exodus, were forced to give out comparable employee stock options. However, several employers balked, plagued by the "East Coast Mentality," which maintained that stock options should not be given out to non-executives. As a result, employers that balked were hurt as employees left en masse to new start-ups and other employers that were liberally handing out employee stock options.

In mainstream corporate America, stock options at that time were viewed chiefly as a tax-shelter vehicle for top executives. However, for Silicon Valley start-ups, stock options were also a key way to attract and retain talented executives without generating expenses that drained scarce capital. Other corporations followed their precedent, and soon stock options had worked their way down non-executives in Silicon Valley. By the mid-1970s, stock options had developed a critic mass in Silicon Valley that was awaiting a spark.

That spark was indirectly provided by Washington. In 1950, when the top personal income tax rate was 91%, tax legislation in Congress allowed profits from stock options to be taxed at the capital gains rate, then 25 %, provided the employee held the stock for at least one year. For those wealthy enough to be able to hold stock for that period of time, this was an enticing tax loophole. The tax-haven status of stock options was whittled away during the 1960s and 1970s as Washington targeted the shelters of the rich. In 1976 lawmakers did away with the tax-shelter status of stock options altogether. As a result, there was no longer a tax benefit for holding on to shares once they were exercised. With the top tax rate still 70%, stock options were taxed as heavily as regular income.

The spark was provided by the Reagan tax cuts, first in 1981 and then again in 1986, which lowered the top personal income tax rate to 50% and then to 28%. Coincidently, this coincided with beginning of a bull market that saw the Dow Jones Industrial Average rise from 800 in February of 1982 to 11,500 in January of 2000.

Those that had maintained their employee stock options programs during the 1970s as Washington assaulted the tax-haven status were greatly rewarded following the tax cuts. The first company executives to take advantage of this new environment were executives at Toys “R” Us. As Toys “R” Us emerged from bankruptcy in 1978, it set aside a full 15% of its shares for stock options for managers and executives. Within four years, the stock price had risen 20-fold. Following the tax cuts, CEO Charles Lazarus cashed in his options for $43 million, while other executives pulled in a respectable $30 million. For executives at other employers, this was impossible not to notice, and the experience at Toy “R” Us was the first of many in the stock option bonanza.1

While executives at other employers were busy trying to replicate the experience at Toys “R” Us, Lazarus and his associates made the next logical step: options are great – so why not options for everyone. Goldstein, the current CEO and one of the benefactors of the original bonanza, claimed that options were a great motivational tool for employees. Accordingly, stock options began working their way down to non-executives. While they were used only occasionally for most employees, stock options for executives became standard practice in an attempt to solve the principle agent problem.

At this time a growing movement in the business world was that of linking executive pay more closely with the fortunes of shareholders. The drive to align the interests of shareholders and executives arose from the perception that executives were often perceived to be either one, milking the company with bloated expense accounts and executive luxuries, or two, involved in empire building by making endless acquisitions without regard to shareholder value.2 As a result, many claim that by tying a portion of employees' compensation to the company's stock, stock option plans are intended to motivate employees to increase their productivity. Increasingly, employees may only profit with a rise in the price of their company's stock.3

As the popularity of stock options grew in the 1980s, both employers and regulators revisited the way stock options were being treated on the income statement. For employers, the growth in stock options has been beneficial for the income statement. (see *Primer: What Are Employee Stock Options*). When certain options are exercised, compensation expenses are deducted from the employer's tax return, lowering its final tax bill. The tax saving represents an adjustment of increased cash on the cash flow statement. However, this tax benefit bypasses the income statement (appears only as a footnote) but instead directly lowers liabilities and increases shareholders' equity on the balance sheet. From there, the bloated shareholders' equity is factored into the denominator of the earnings per share calculation, thus reducing the dilutive effect of options. A recent study by Bear Stearns reveals that these distortive practices is growing, and in some cases is quite substantial.4

The increase in the number of employee stock options in the 1980s forced regulators to revisit an issue that had been previously circumvented – the valuation of stock options. Sine 1938, the Securities and Exchange Commission (SEC) has left the setting of accounting standards to the accounting profession. The American Institute of Certified Public Accountants (AICPA) has been wrestling with how to value stock options ever since. The method settled upon was to value options on the day that they are issued, by subtracting the exercise price from the stock's current market price. If the exercise price were set at that day's market price, as was typically the case, it meant options were essentially free for the employer.

The method settled upon did not capture the true value of the option. For an option, even if its future market price is equal to the present price, people will pay for it. Quantifying this value, or intrinsic value, evaded professionals until 1973, when two finance professors quantified the value of call options in the Black-Scholes model.

The Financial Accounting Standards Board (FASB) had assumed the responsibility for setting accounting standards by the mid-1980s. After much delay, the FASB proposed a new options valuation standard in 1993: corporations should expense options at the time they are granted, using the Black-Scholes model to determine their value.

The proposal was met with fierce opposition in the business community. The fear was that if options were expensed, companies that used them heavily would see their reported earnings drop, adversely affecting their stock price. If corporations had to record a reduction in income by 40 percent, it was feared that the stock price would go down by 40 percent, making stock options worthless. Corporations would suffer a heavy loss of employees, jeopardizing the current bull market.5 After heavy political lobbying, Congress forced the FASB back down.

The final ruling saw the FASB concluded that while expensing options using the Black-Scholes model was preferred, it was not required. The only requirement was for companies to disclose their estimated options expense in a footnote in the income statement. The October 1995 decision settled a decade old debate that kept many interested corporation on the sidelines. Accordingly, the options bonanza skyrocketed, as the FASB ruling allowed previously hesitant employers to expand their use of options with little direct impact on earnings.

II. The Costs and Benefits of Employee Stock Options

A. Benefits for Employers

Some have argue that stock options have been key to the recent economic growth, marinating that if Silicon Valley is the economic engine of the world, and stock options are the fuel.6 For employers, there are primarily three benefits in utilizing stock option plans. Corporations can use stock options as an alternative way to increase finances, as a tool for retaining employees, and as a way to align the interests of management and shareholders.

1. Financing: Corporations have used stock options as an alternative way to increase finances primarily through three different methods: playing the put game, inflating earnings, and writing them off as tax liabilities.

The "Put Game": As employers issue more and more employee stock options, literally thousands of employers entered the stock market and bought back millions of its own share in order to lessen the dilutive effect of issuing large amounts of employee stock options. However, certain firms used savvy hedging techniques that resulted in tax-free income. During bull market of 1990s corporations made cash selling put options, or put warrants, on their own stock. A bullish strategy usually reserved for big institutional investors such as foundations and college endowment trusts, aggressive companies made billions on investor bets that their stock would fall. Dell saved itself about $1.6 billion in two years, Microsoft $600 million in 3 and a half years, and Maytag $10 million in one year.

A put option is a bet that a company's stock will decline below a certain price. For example, a corporation is very bullish on its stock which is trading at $100 a share. It sells put options to an investment bank exercisable at $100 a share on 1 million shares with an expiration date of one years time. To buy the puts, the investment bank pays a premium of, say $10 a share, which is then past on to another investor which believes that the stock of the corporation is going to depreciate. After a year, the stock is trading at $125 a share. The put expires worthless, and the corporation pockets $10 million in premiums. Since the tax code allows corporations to sell options on their stock tax free, the premiums are not taxable. What's more, while it will cost the employer more to buyback rising shares, the put game allows the employer to get paid – tax-free – for a decision it was already going to make. The employer can even protect against a fall in share prices by setting up a collar – a complex transaction that involves selling puts, then taking the premium and buying calls.7

a.) Accounting "Glitch": A second method for employers to increase finance using stock options is a consequence of the accounting treatment of employee stock options which results in inflated earnings per share (see *Primer I*). In 1995, the FASB concluded that while expensing options using the Black-Scholes model was preferred, it was not required. That decision meant that for employers, stock options result in little direct impact on earnings. Specifically, stock options do not appear as an expense on the income statement, rather just a mere footnote. However, because shareholders' equity is credited on the balance sheet, the denominator in the calculation of the earnings per share is inflated, thus resulting in an inflated earnings per share. Are these distortions small stuff? Not so, considering many investors who rely upon earnings-based valuation measures such as the price-earnings ratio when considering to invest in a stock.

b.) Tax "Glitch": A third method for employers to increase finance using stock options is a consequence of the tax treatment of employee stock options which results in a tax benefit. On the balance sheet, the tax benefit appears as a liability – tax payable. However, because it is not treated as an expense on the income statement, the tax payable liability for the employer, equal to the gain the employee made on exercising the stock option, is another benefit for the employer that in fact they did not even pay out.

2. Align Interest: In addition to the financing benefits, employers often claim that employee stock options align the interests of employees and shareholders. By handing options to executives, the theory says that these influential members of the corporation will do everything they can to ensure that the share prices will rise, thus benefiting the shareholders as well. However, this theory has several critics. According to a recent Harvard Business School study, results indicated that no aspect of company's compensation plan design predicts the company's performance.8 Instead, some argue that share prices are more susceptible to cyclical patterns of the industry than any one employee's efforts.

3. Retention: A final benefit for employers that is often mentioned is that employee stock option aid in the retention of key employees. Where employers that are liberal with their stock options, employees often as willing to work for less and agree to take a pay cut for options. As a consequence, the willingness to take a pay cut helps keeps salary expenses down, and thus helps keep earnings high. For start-ups and cash poor companies, stock options offer an attractive incentive to lure human capital that they otherwise could not offer. However, offering stock options as a retention method is a double edge sword. After witnessing large gains due to stock options at other employers, employees often develop "deity complexes" and leave or threaten to leave in order to begin start-up or gain millions with other start-ups. As a result, employee defection due to stock options weakens strong companies and even leads to failed businesses that otherwise would have been successful.

B. Costs for Employers

While there are numerous benefits, employers have several concerns in regards to stock options. The majority of the concerns surrounds the relationships between employers and their shareholders. The growth in stock options has led to inflated profits, diluted shareholder value, increased cash allocation for stock buybacks, and raised the dilemma of repricing.

1. Inflated Profits: Stock options have led to inflated corporate profits at several employers, due to understating labor costs and overstating earnings. The distortions in earnings based valuation measures such as price/earnings ratio adversely affect the relationship between employers and investors, who are increasingly hesitant to trust such valuation measures at stock option liberal employers (see *Primer I*). In one startling analysis on the impact of stock options on the 100 largest US companies, a recent study found that firms overstated published profits by 30 percent in 1995, 36 percent in 1996, 56 percent in 1997, and 50 percent in 1998.9 One author warns that because stock options are not properly accounted for, they are a mortgage on future earnings.10

2. Dilution: In addition, by granting stock options, employers dilute current shareholder value. Dilution occurs whenever stock options are exercised by the holder, thus creating more shares of stock. The increase in the number of total outstanding shares dilutes the value of original shareholder value. As a result, original shareholders have seen their stakes in the corporation fall as more stock is issued in the form of employee stock options. Dilution measures the upper bound of potential wealth transfer from shareholders to option-holders. Dilution measurements assume that the exercise price will be paid in exchange for a share of stock with a much higher market value. The actual value transfer from shareholder to option-holder will depend on the difference between the option price and the maker price of the shares at exercise.

Basic dilution, or option-overhang, provides an overall measure of dilution by dividing the number of stock options granted during the fiscal year by the number of shares outstanding at he end of the fiscal year. Full dilution estimates the portion of the current shareholders' value transfer to employees by recognizing that on exercise there are additional shares still outstanding. Finally, potential dilution includes the number of options that the employers has available to potentially grant.11 If an employer does not grow fast enough and remains liberal with its stock options, its option overhang will increase and its shareholder value will decrease. For mature companies, where growth is harder to count on, the granting of stock options is often accompanied by share buybacks.

3. Buybacks: Many employers maintain that the goal behind share buybacks is to raise the stock price by reducing the number of shares outstanding, thus boosting per-share earnings. Stock buyback historically have been viewed as a bullish sign by shareholders. By using cash to buyback stock, employers were catering to shareholders' preference for getting their payouts in the form of capital gains rather than highly taxed dividends.12 Often, companies borrowed to buy back shares because of the tax-deductible status of debt in the US. Leveraged stock purchases sends a psychological signal to the marketplace that management believes their stock is undervalues and that future earnings would be strong.13 In 1998, non-bank S&P 500 companies shelled out nearly $150 billion to buy back shares, $35 billion more than they paid in dividends.14

Because stock option programs have grown so dramatically, employers are devoting more of their earnings to buybacks. Once options are exercised, they reduce earnings per share if employers simply issue more shares to meet option obligations. By regularly purchasing more of their own shares than they currently need for option exercises, employers have not only prevented dilution, but have pushed up their own stock prices. Increasingly, cash that would be otherwise available to capital investment is being devoted to stock buybacks. As a result, employers are increasingly having to borrow to pay for capital investment, even though they are cash-rich. The question that arises is how long this cycle go on, and what happens when the market goes south.

4. Repricing: Many employers are tempted to lower the exercise price on stock options when the market price for the corporation's stock falls substantially. Yet for some employers, the reason to avoid "taking the hit" outweighs the reason to reprice.

By avoiding "taking the hit," shareholders become the biggest losers when employers reprice. Repricing diminishes shareholder value. A 2000 study estimated that on average investors in companies with option plans could see their shares diluted by 14.6 per cent on average. For technology corporations, dilution was even higher at 24 percent on average.15 Secondly, repricing stock options completely undermines the theoretical case of employee stock options – that they align the interest of employees and shareholders – if employees are only willing to participate in the market's upside. The "one way" employee stock options are of little interest to shareholders, providing employees a benefit that is not available to them.

The problem for many companies is that employees have come to regard stock options as their birthright, which lends warning for employers: if one employer's stock options are worthless, then employees will simply seek more attractive options elsewhere.16 With options deep underwater, i.e. far out of the money or far short of being profitable, employers face pressure to reprice to address employee incentive and retention concerns. Employers defend repricing by arguing repricing helps retain shareholder value by retaining key employees.

As a result, a cost to employers is the choice of alienating shareholders or alienating employees. In addition, repricing is not free. It involves canceling old options and reissuing new ones at lower prices. What's more, last year the FASB began requiring companies that repriced options to take a charge to earnings it the share price of the stock later rebounded. The deterrent seemed credible, considering that options that are never repriced never show up on the income statement. Under the new ruling, employers had seemed to have only two choices. Employers risked irritating shareholders as well as realizing potentially huge charges to earnings, or employers could do nothing and risk having employees defect to companies that could offer more attractive options.

However, in addition to traditional repricing, or pure repricing, three other pseudo-repricing schemes have been devised. The first was make-up grants, where the employer gives all holders an extra one-time stock grant. Because the employer does not cancel the old grants, make-up grants contribute to diluted earnings per share. A second method, and now the most popular, is the slow-motion swap, also known as synthetic repricing, or 6&1 repricing. In this method the employer cancels underwater options and replaces them – six months and one day later – with new option at the then-current market price. By delaying the new options, the FASB views them as separate awards, and won't charge them to earnings. A final method is the restricted stock swap, whereby employers swap underwater options for restricted stock at a new low price.17

C. Benefits for employees

Where employers find themselves caught in a dilemma trying to assess whether the incentive benefits outweigh the costs of stock options, employees are similarly caught in a dilemma. Stock options are a new component to compensation, and offer many enticing possibilities such as excessive value transfer, the potential for unlimited gain, and the potential for taxation deferral.

1. Value Transfer: Many believe that sharing stock option wealth is a good first step towards bridging the gap between shareholder returns and growth in employee wages and benefits. For example, in 1995 return to shareholders was above 37 percent, when employees received less than a 3 percent increase in pay and benefits.18

At the top, there has been considerable gains made in increasing compensation. In 1999, the average total pay garnered by CEOs at 362 of the largest US companies rose 17% from 1998, from $10.6 million to an average of $12.4 million. The 12.4 million is 6 times the average CEO paycheck in 1990. Supporting this drastic rise in pay has been stock options, the largest component of a top paycheck.19

Although empirical evidence shows that stock option benefits are concentrated at the top, non-executives are nevertheless receiving a larger percentage of stock options.20 Dilution itself is a measure of how much value to transferred to stock option holders. So long as stock option holders exercise their options and refrain from selling them, stock option holders have the potential of becoming stakeholders in American businesses.

2. Unlimited Gains: Executives and non-executives have the potential to reap unlimited gains with stock options. As opposed to fixed income, the sky is the limit with stock options. Because of the nature of a call option, the employee sacrifices a little – potentially a portion of fixed income – in order to obtain the instrument. However, the possession of the instrument allows the employee to cash in on the possibility that the stock soars, far surpassing any realistic form of fixed compensation.

3. Tax-Deferral: Depending upon the type of stock option granted, employees may benefit from preferential tax treatment (<u>see</u> *Primer I*). Though granted less often, qualified stock options are not taxed when the stock option is either granted or exercised. If the employee abides by the qualified stock option agreement, the employee would be subjected to capital gains tax on the gain made after selling the stock. The capital gains tax rate is less than ordinary income tax rate. Nonqualified stock options, the majority of stock option grants, also are subjected to preferential tax treatment, so long as the employee holds the instrument throughout the tax conversion period. This process is risky, however, as the employee assumes the risk of the option during this period and may be subjected to a plunging stock price.

Both types of options potentially receive better tax treatment than would other components of employee compensation, such as bonuses or profit sharing.

D. Costs for Employees

While employees have benefited from the new component of compensation, several risks are present that create a dilemma for employees as well. Stock options as a component of pay may demoralize non-executive employees, lead to money mismanagement for inexperienced investors, and transfers compensation risk from employers to employees.

1. Demoralizer: The cyclical nature of the industry can actually be a demotivator for employees with stock options. While the market price of a stock is related to the success of the employer, the current market price of the stock, which determines the "spread" and the "in-the-moneyness" of a stock option, is also extremely dependent upon the cyclical behavior of the economy. So many exogenous factors affect the stock-price performance – inflation, interest rates, market confidence, etc. – that have nothing to do with the individual employees. Non-executive stock option holders have witnessed their options go up when their employer is poorly performing and go down when their employer has a stellar performance.

Such randomness may lead many non-detectives to realize that their hard work may be for nothing – that the movement of the share price represents a lottery rather than an indicator of employee performance – employees may be increasing disillusioned with stock options as a component of compensation. Accordingly, many employers believe that it is better to keep employees focused things they can influence, such as earnings.21 As a result, some argue that profit-sharing plans would be more suitable for employees because employees would be more focused on earnings rather than the share price, which is more affected by macroeconomic and industry-specific conditions.22

2. Inexperienced Investors. Many non-executive stock option holders, of limited income and tighter income constraints, do not have the time or the resources to effectively manage their new form of compensation. Because stock option programs are relatively new, many stock option holders so not have a clue on how to manage stock options.

According to a recent Oppenheimer Funds survey, 37% of employer stock option holders felt they understood Einstein's theory of relativity better than their options. Furthermore, 11% said they had allowed vested, in-the-money options to expire and become worthless. The knowledge void has brought employee lawsuits, even bankruptcies by those who grossly mismanaged their windfall, losing it all in the bear market.23

Historically, non-executives had fixed income, such as wages or salaries, in addition to fixed health care and fixed pension plans. Now, many non-executive stock option holders do not understand that they possess a variable form of pay.24 Rather, they view their stock options as future income, and plan accordingly. As a result, many adjust their lifestyles and many incur massive debts in the process. However, as the volatility of the market erases paper fortunes, many are caught unprepared to face their outstanding liabilities with their various creditors.

3. Assumed Risk: For employees, the biggest cost of stock options is realized when the market goes south. Stock options have allowed employers to transfers a portion of the risk of employment compensation to employees.

Prior to the growth of stock options, employers guaranteed fixed salaries to employees, even during times of financial market instability. However, employers have now moved a portion of fixed income cost from the balance sheet – that portion of employee compensation forfeited in order to gain the stock option – allowing them to better "flex" during market downturns.

In return, the employee now assumes the risk of the compensation during market downturns. Instead of receiving fixed income in times of market downturns, stock option holders see their income dissipate at the same time the market is a contraction. Undoubtedly, this trend will protractedly adversely affect market downturns, and many stock option holders will quickly sell in order to avoid losing a component of their salary. This may in turn lead to increased market volatility and increased market swings in the trough and the crest.

As a result, the assumption of risk underlines the increasing importance of Wall Street in the daily lives of many. The health of Wall Street, the importance of maintaining the bull run, the importance of interest rates are not only important to shareholders and their earnings, but also for those individuals in which their salary is tied to the health of the market.

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