

The Influence of Changes in the Accounting Standards for Employee Stock Options on Corporate Equity Management Policies

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1. Employee stock options: some accounting, valuation and management issues

A major feature of corporate compensation policy in the 1990s was the widespread adoption of Employee Stock Option (ESO) plans. An Employee Stock Option is an equity derivative security, which gives an employee the right to purchase shares of the company employing him at a predetermined price, the exercise price of the option, after it becomes vested, and before its expiry time, frequently subject to the fulfilment of specific employment contract provisions. The introduction of ESO plans was particularly common in high-tech companies and it coincided with the development of networking technologies, the spread of more powerful computers and software, and, more broadly, with a period of rapid productivity and economic growth.

The accounting for stock options became early a source of controversy. Since the options were believed to facilitate innovation and growth by providing attractive incentives to employees, there was a strong political opposition to account for them as a cost in corporate financial statements. As a consequence, when the ESO-related accounting standard, SFAS 123, *Accounting for Stock-Based Compensation*, was introduced in 1995, it only urged companies to expense options, at the same time allowing them to use another principle codified in APB Opinion 25, *Accounting for Stock Issued to Employees*, which required only the disclosure of the ESO cost in a pro forma income statement included in notes to financial statements. The valuation method

adopted was the standard Black-Scholes/binomial option pricing. Not surprisingly, for many companies extensively using options, the difference between the standard and pro forma net income was significant.

The complex nature of employee stock option contract contributes to difficulty in assigning a precise value to this instrument as well as to problems with the design of option plans and their management. Several aspects should be mentioned.

First, there are contractual features which differentiate ESO from financial options and consequently make their valuation by standard methods quite challenging. Employee stock options are long-term instruments, and their expiry time is much longer than the vesting period. This could make their theoretical price higher than the price based on the vesting period. At the same time these options are frequently exercised soon after they vest. A vesting period may be for example three years, while the expiry is seven or ten years. Further, there are the usual problems with the volatility parameter, which are even more pronounced with such long-term instruments.

Second, it has been demonstrated within the framework of basic financial and economic theory [Meulbroeck (2001), Hall and Murphy (2002)], that the value of ESO to undiversified and risk-averse holders is less, and frequently significantly less, than the value obtained by the standard Black-Scholes type methods.

Third, economically, a stock option is a compensation contract, whereby a company purchases labor and human capital services of an employee. Accordingly, it may be quite differently valued by a company granting it and by its recipient. In a basic approach, the present value of any financial instrument is its discounted expected payoff. The discount rate and the expectation operator, however, may be different for different parties to an ESO contract. This influences key elements of ESO compensation process: the design of option plans and the incentives the options generate. Moreover, ESO value does not remain fixed during its life, but changes with the stock market price of the underlying instrument. This may affect further employee incentives.

Fourth, financially, ESO are short call option positions to a company issuing them and they are a source of substantial dilution risk. This risk is frequently managed by share repurchases and related financial strategies. ESO plans and their management modify risk characteristics of a company and result in a number of agency problems.

In recent years the issue of expensing options became reassessed and the accounting standard-setting bodies are now adopting new standards for ESO. The FASB issued recently the Exposure Draft for a new standard [FASB (2004)] which, unless a political process once again blocks it, should take effect from December 15, 2004. The new standard makes the expensing of options mandatory. It mandates not only disclosure but full recognition of stock options in financial statements. It addresses valuation issues by allowing companies to use more complex lattice methods which incorporate some as-

pects of employee exercise behavior and the term structures of volatility and interest rates. These changes will undoubtedly improve some important aspects of the valuation procedure. There is also a new standard for ESO accounting issued by IASB in February 2004, *Share-based Payment* (IFRS 2). In most important aspects there is a high degree of convergence between new FASB and IASB standards.

In the period of transition to mandatory ESO expensing, a many companies have already started to expense options. These include a number of S&P500 companies. Still, the management of some major technology companies, e.g. Intel, is opposed to option expensing even if there is a (non-binding) shareholder resolution urging the management to do so.

The change in the accounting treatment of ESO has already started to affect corporate financial strategies for equity-linked operations. To observe market-wide, longer-term effects of these new regulations some more time must elapse. Below, a case is presented, describing recent adjustments in the compensation and payout strategies of Microsoft.

2. Recent developments in the equity-linked policies of Microsoft

In 2003 Microsoft changed significantly its equity management policies. Earlier, its equity operations were characterized by large stock option grants, significant share repurchases and no dividend payments. In January 2003 Microsoft declared its first annual dividend at \$0.08 per share. This was increased to \$0.16 per share in October 2003. In July 2003 Microsoft announced that it was discontinuing its stock option plans, changing its stock-linked compensation method to stock award grants, and that it would restate its financial reports to include stock-option expensing.

In another step, in October 2003 Microsoft offered to exchange some of the outstanding employee stock options for cash in the Stock Option Transfer Program, a transaction involving JPMorgan Chase, an investment bank. The major aspects of this transaction included, first, the selection of options that may be transferred, second, establishing the payment schedule to the employees, and, third, reaching an agreement with JPMorgan on the price for the transferred options.

In the transfer program Microsoft offered its employees to buy out all their options, both vested and unvested, with the exercise price over \$33. An employee electing to participate had to transfer all his or her options with strike prices above this minimum price. At the end of its fiscal year 2003, there were 651 million options outstanding with the strike prices above that limit. Out of this number, 349 million options were already vested. Options with strikes above \$33 were 42% of all stock options outstanding, and the vested options were 45% of all vested options, so employees holding almost half of the vested ESO were not able to exercise them, since the options were significantly

OTM. The options with strikes in the range between \$33 and \$41 had on average 3.2 years to expiry, and those with strikes in the range between \$41 and \$59.56 had the average expiry time of 2.4 years.

Microsoft decided on the following payment schedule to the employees deciding to transfer their options: the payment was divided into three installments, with some variation depending on employee jurisdiction. The first part of the payment was for the greater of \$20000 or one third of the total payment due for transferred options and it was fixed for the end of 2003. Two other installments were scheduled for the end of 2005 and 2006, contingent on employees meeting the terms of their contracts with Microsoft.

Employees had to take their transfer decision before November 12, 2003, that is before the price for the options was set. The pricing agreement was reached with JPMorgan and involved several steps. First, the terms of options sold to JPMorgan were adjusted to more closely resemble options traded in the financial markets and many specific contractual terms found in employee stock options were cancelled. Second, the expiry time of options with more distant expiry was reduced to maximum three years, and for some options to two years. Clearly, this reduced the value of some of the options. Third, the price for the options was set using the underlying instrument price average for the period of 15 trading days, between November 14 and December 8, 2003. The average Microsoft share price in this period was \$25.5720. This allowed eliminating some pricing distortion that may have been the result of a larger price move on a single day. The option pricing method was not specified precisely. It was stated that the Black-Scholes and other pricing models were used. The volatility input was the implied bid volatility for the traded options on Microsoft stock closest to the terms of the individual tranches of the transferred options. The transfer took place on December 11, 2003. Microsoft delivered 344.6 million options which its employees elected to transfer and received in exchange the payment of \$382 million. Microsoft paid \$218 million to the employees in the first installment described above. Ultimately, there were 621 million options eligible for the transfer and 55% of them were transferred. 51% of employees holding eligible options participated in the program. At the end of the second quarter of Microsoft's fiscal year 2004, there were 284 million stock options outstanding with a strike price over \$33, 189 million thereof vested. The average expiry time for options with strikes between \$31 and \$44 increased to 4.7 years, and for those with higher strikes to 4.9 years. That means that about 50% of the transferred options were unvested and that options with shorter expiry times have been transferred. The transfer reduced the number of the outstanding stock options by 22%.

Effectively, in the option transfer transaction a portion of the outstanding stock options was sold. Call options are usually sold to cash in the premium in the belief that the price of the underlying instrument will not increase. In the option transfer Microsoft offered its eligible employees a way to cash out of

their OTM options. Clearly, some of the employees decided that it was better to accept a reduced payment than to wait for a potential rise in the Microsoft share price. Microsoft modified its risk exposure from that of the potential employee exercise to that of the potential exercise of the modified options by JPMorgan. What may have been Microsoft's reasons for doing the transfer program? Certainly, it may have felt the pressure from the holders of the underwater options to compensate them for their labor services. Yet, since the options in the transfer were priced deep OTM, the compensation was most probably much less than employees hoped for at the grant date. The transfer did not reduce the potential dilution risk. Still, Microsoft may have judged that either the risk of exercise by JPMorgan was not large or that in case of exercise it would just issue shares at a high price. JPMorgan may have reached a different conclusion. It may have hedged the purchased options and collected other fees from Microsoft, or may have hedged less and speculated that the Microsoft share price would rise. It may have also wanted to establish a reputation for such new ESO management transactions in the market.

In a shift in its share-based compensation policy, Microsoft moved from awarding ESO to Stock Awards and Shared Performance Stock Awards (SPSA). Stock Awards are grants of stock that vest over a five-year period. Shared Performance Stock Awards are stock awards that vest at the end of a performance period. The number of shares awarded in SPSA plans may be reduced to 33% (or 0% in certain cases) or increased up to 150% of the initial number awarded, contingent on the value of performance metrics at the end of a performance period. In the first half of fiscal 2004 Microsoft awarded 29 million of stock awards and 30 million of SPSA. In the past, the number of ESO awarded by Microsoft was very volatile. The average number of ESO granted in the years 1998–2003 was about 300 million annually. It may therefore seem that the number of stock awards granted is less than that of ESO before and therefore reduces the dilution risk from equity-based payment to Microsoft. This does not seem to influence significantly Microsoft's share repurchase activity. In the last three years it repurchased over \$6bn of its shares annually. In the first nine months of the current fiscal year it repurchased \$3.4bn shares and paid \$1.7bn dividend.

3. Conclusion

The introduction of new accounting standards for employee stock options and their mandatory expensing represents a major change affecting corporate compensation and financing behavior. Clearly, on the basis of the case presented above it is impossible to draw general conclusions on what will be their ultimate impact. Still, significant shifts in financial policy by one of the major companies deserve attention.

Admittedly, the recent moves of Microsoft, and the abrupt cancellation of its ESO program, seem at first quite radical. It is interesting to note that Microsoft employees delivered only shorter term options in the option trans-

fer. They kept longer term instruments, in the expectation of a rise in share price. This means that options remain for them an attractive compensation alternative. Microsoft may have come under some pressure from employees to provide cash for OTM options. But it is difficult to judge now what will be the financial outcome of the transaction. If Microsoft price increases significantly it may lose on the options to the investment bank, possibly a worse outcome than having to issue cheaper stock to employees. The shift to stock awards may signify that in the opinion of Microsoft management these instruments provide better incentive alignment. It started paying dividends which may be important for larger shareholders. In spite of major changes introduced it is still buying back substantial amount of shares. Microsoft's complex equity policy behavior may indicate the difficulties of quantitative evaluation of different compensation and payout strategies.

There is certainly a need for recognition of employee stock option plans in financial statements. Still, the incomplete quantitative understanding of cost, benefits and agency problems posed by the application of these instruments should be taken into account. Recent changes in the accounting for employee stock options may affect a number of equity-linked financial management choices including the design and method of share-based compensation as well as dividend payment and stock repurchase policies. In particular, Microsoft's behavior demonstrates that there is a chance that some companies may respond with a significant reduction of ESO grants. Such behavior may adversely affect highly skilled people willing to bear more risk, who might gain from option compensation. The investigation of risk bearing, agency problems and incentive effects associated with various forms of equity compensation should be pursued further, not least to understand more thoroughly the sources of their value, as well as their costs and benefits to different agents.

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