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Opinions on Options: Discordant Incentives and Desultory Disclosure

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Abstract

In this paper we examine the controversy which has surrounded options awarded to executives as a component of their overall remuneration. We argue that many of the claims advanced in favour of the use of options schemes by employer corporations are flawed. In particular, we suggest that the alleged incentive alignment effects of granting options to executives either do not manifest themselves as strongly in practice as might be expected in theory, or are undermined by other factors, which we set out in this article. Further, we are critical of the view that the current status quo financial reporting treatment of options granted to employees in lieu of cash or other forms of remuneration is appropriate or able to be justified as a matter of principle. We discuss our preferred alternative treatments and advance a case as to why we believe that they would represent a more appropriate means of accounting for options than current prevailing practice.

1 Introduction

According to research undertaken at the Harvard Business School, by 2000, CEOs in the United States were earning four hundred and fifty eight times as much as ordinary workers[1]. In 1980, by way of contrast, the gap was a pay differential of ten times[2]. Much of the difference can be attributed to the enormous growth over that period in the use of equity linked remuneration instruments, and in particular, in the use of options. It has been estimated that in 1980 the bulk of CEO compensation came in the form of cash salary and bonus, with only around 30% of CEOs receiving option grants[3]. By the late 1990s, this situation had dramatically reversed such that the value of equity based compensation dominated cash based remuneration by a large factor[4].

Though public comment and criticism of options awarded to executives became particularly prevalent and even strident towards the conclusion of the 1990s and even more particularly in the wake of the unprecedented revelations of corporate fraud and failure reported in the first years of the new millenium[5], the fact is, that options have been used as part of executive remuneration in the developed world for an extended period.

Articles on the subject of the appropriate accounting treatment for such instruments were not unknown, even in the 1950s[6]. The Accounting Principles Board (APB) promulgated an accounting standard for stock options (APB 25) in October 1972, an act hardly likely to have been generated by idle speculation that there might, in future, be a need for some form of guidance on the appropriate financial reporting practices with which to grapple with this type of instrument.

By the 1980s, reports were emerging in the popular business press in relation to the significant sums which were even by that time accruing to senior executives fortunate enough to have been granted tranches of options[7]. This trend in reporting was to continue into the 1990s[8].

By the early years of the present decade, so great was the intensity of the spotlight of scrutiny on options, that they might reasonably be described as fulfilling the role of a lightning rod for blame associated with the corporate collapses, instances of fraud and governance breakdowns which marked the first few years of the new millennium. Even in the context of the present, more critical environment however, the use of options as a component of executive compensation flourishes.

It is worthwhile, in the context of this burgeoning public debate, to examine a number of issues vital to the prescription of better policy at both a corporate board and legislative level. First, do options schemes typically create the positive incentives for value creation that their exponents typically claim they do? Second, can a continuing failure to bring the cost of options to account as a period expense be justified on any reasonable grounds? Third, what alternatives exist if it is determined that the most appropriate path to reform is to mandate expensing of options packages? We examine each of these issues in turn.

2 Do share option schemes create the right incentives?

There is a strong link between the precepts of agency theory based models of conflicts between principals and agents, beginning with influential work such as that by Jensen & Meckling[9] and Holstrom[10], and the justification of the use of options and other equity linked devices as a significant element of executive remuneration. From an agency theory perspective, managers whose wealth is not tied (or tied only to a limited extent) to the value of the firm by which they are employed, are likely to be motivated by a range of factors divergent from the interests of the owners of the firm.

The use of options, it is argued, represents an effective means of overcoming many of these difficulties by directly tying managerial wealth outcomes to share price, and thus to the wealth outcomes of a firm's body of shareholders at large[11]. That at least, is the theory. However, there is growing evidence that share options schemes have created some dubious

behaviour on the part of executives.

Consider first the substantial volume of shares repurchased by companies. Yermack (2001) cites evidence that repurchase activity rises with the option holdings of managers[12]. The repurchase of shares may increase firm value when acquired at prices that are below their true economic value, or when there are no alternative investment opportunities that would be expected to earn the firm's cost of capital. Exactly why there should be a positive association between repurchase activity and option-based compensation schemes is uncertain.

One explanation often put forward is that firms wish to limit the dilution that would arise for existing shareholders when shares are issued to employees upon exercise of their options. Share repurchases reduce the number of shares outstanding and act to offset shares issued to employees. If we are to believe that options create sufficiently strong incentives that employees are led to create value over and above that which would have achieved had there been no options on offer, then we must question the basis of this explanation. Dilution will not be detrimental to existing shareholders if the value created by employees (arising directly from the stronger incentives offered by options) is matched by the value of option compensation realised by employees. Put differently, there is no need for management or shareholders to be concerned with dilution in earnings per share if the increase in shares associated with the exercise of employee options is matched by an increase in *expected* earnings, where the latter is created by the greater efforts of incentivised employees.

If the dilution argument does not hold, why else might there be an association between share repurchase activity and employee option schemes in firms? If management possess information advantages not available to shareholders, a share repurchase may be timed to enable executives to achieve substantial gains on the exercise of their options. Specifically, announcements of a share repurchase typically result in an increase in share price. There are a number of possible reasons for this - perceptions that the firm is undervalued and management seek to return the firm to its 'true net worth', premiums offered to encourage sale or offset capital gains taxes, reduction in supply of shares outstanding - to name a few. If management time the repurchase of shares to coincide with the vesting of their options, any increase in share price arising from the transaction may result in a substantial increase in their remuneration. The issue at hand, however, is the degree of information asymmetry between management and shareholders regarding the motives of the repurchase and the sustainability of the increase in share price. Shareholders are unlikely to possess the same insight as managers into the opportunity cost associated with a share repurchase, this being the return on alternative investment opportunities. Any gain in share price arising from the repurchase of shares may be temporary, and indeed, the transaction may have negative consequences for long-term firm value if funds that could have been invested in valuable projects have been instead diverted to repurchasing shares. Share repurchases may represent a valuable tool for executives who wish to engineer an immediate gain in their option remuneration. This is supported by Aboody and Kasnick (2001), who attribute a significant association between the choice of cash payout policies and CEO stock option compensation to CEOs' opportunistic behaviour in response to the structure of their compensation, rather than to a more general need to repurchase shares to support their firms' stock option plans[13].

In an earlier paper, Aboody and Kasnick (2000) investigate whether CEOs manage the timing of their disclosures around stock option awards[14]. Their findings suggest that CEOs make opportunistic voluntary disclosure decisions that maximise the value of their share option compensation. They find that CEOs manage shareholders' expectations around award dates by delaying good news and rushing forward bad news. The result is that share prices fall prior to award dates, allowing at-the-money options to be awarded at lower exercise prices. Good news, however, is held off until just prior to vesting dates, allowing an immediate increase in option value, and ultimately, executive remuneration. The result is that shareholders have been on a round ticket to nowhere, while executives have gained considerably in terms of the value of their compensation. The timing of voluntary disclosures thus affords the opportunity for management to expropriate higher remuneration from the firm without there necessarily being an increase in value for existing shareholders.

A further example of opportunistic behaviour on the part of management relates to the payment of dividends. Lambert, Lanen and Larcker (1989) examine changes in the cash dividend distributions of firms subsequent to the adoption of executive option plans, and find that the adoption of such plans induces top executives to reduce cash dividends relative to the expected level of dividends that would have prevailed in the absence of the plans[15]. This finding is consistent with the notion that dividends negatively affect the value of stock options given that executive stock options generally do not share in dividends paid by the firm. By reducing dividend payments, the underlying equity base of the company will increase, preserving the value of options held by executives. Aboody and Kasnick (2001) also suggest that CEO stock option compensation plans influence the composition of firm's cash payouts in the form of dividends and share repurchases, with executives selecting share buy backs to avoid the adverse effect of cash dividends on stock option values[16].

Paying executives in the form of options also appears to increase their propensity to gamble the firm's assets. Chen (2002) examines the impact of stock options on the risk profile of projects undertaken by firms[17]. Chen tests the ratio of post-option award volatility of return on investment to pre-option award volatility of return on investment, and finds that companies which grant executive stock options demonstrate greater volatility in investment returns compared to those which do not. This result should not be surprising given that options are more valuable in volatile climates. Chen concludes that executives undertake projects that entail greater risks after they are awarded stock options.

The matters set out above are of even greater moment where the bulk of options held by employees within a firm rest in the hands of a small cabal of senior executives, the same group with the power to change financial and operating policies to suit their, but not necessarily the shareholders' interests[18].

In addition to these items of concern, it is not at all clear that the use of executive options has actually historically resulted in executives having as great a proportion of their wealth tied to the firms for which they work as might at

first glance appear to be likely to be the case. Large sample empirical evidence gathered in the United States suggests that, at least in that jurisdiction, when managers receive new options, they tend to reduce the risk exposure so created by selling shares in the firm that they already own.

Further, when executives exercise options, the US evidence suggests that they tend to sell nearly all stock so acquired[19]. So, if one means to resolving the types of principal-agent conflicts which are argued by option protagonists to justify the award of significant quantities of these instruments to executives is to engineer an increase in overall exposure to employer firm equity by executives, the empirical record suggests that it is dubious whether the issue of options is in fact achieving this goal.

Further, even prior to the vesting date associated with options issued to employee executives, it is possible that individual executives may be engaging in a range of private contract based devices to either limit or remove the risk to which they might otherwise have been exposed as a result of their receipt of options. Over recent years, financial institutions have engineered a range of mechanisms effectively allowing managers to realise value from and or reconfigure the risk profile of their options holdings, including fences and zero cost collars[20].

It is not at all clear that issuing organisations in Australia have had sufficient presence of mind to either proscribe the use of such devices by executives, or at least to force them to disclose their use to the board and seek ratification. Further, it seems that under the present *Corporations Act* and ASX listing rules, there is no present means to enforce external disclosure of the resort to such devices by executives.

In addition to the foregoing, it should not be assumed that the risk profile of executives in receipt of options and that of shareholders is symmetric. In most cases, executives in receipt of options bear less risk in the context of poor performance than ordinary shareholders. If unsuccessful decision-making leads to declines in share prices, shareholders continue to lose until the decline ultimately reaches a conclusion. Executives in receipt of options on the other hand, face a limited downside, since beyond a certain level of decline in share price, their options are essentially worthless (though, they may rise phoenix like if they have sufficiently long time prior to expiry and the underlying share price rebounds).

Further, in many cases, executives will be given an opportunity to be issued with repriced options in lieu of their now worthless pre-existing instruments, in a process known as "reloading"[21]. This in effect means cashing in old instruments with higher exercise prices as the only consideration paid for receiving new instruments with much lower exercise prices.

We take the view that repricing or "reloading" is like reducing the pass rate in a "fair" examination simply because the group performed poorly. As such, it represents a particularly invidious phenomenon, one which gives the lie to the rather naive argument that the grant of options to executives results in substantial alignment of their incentive and risk sets with that of the shareholders as a general body.

In all, holding aside the rhetoric, there is a great deal of room for improvement in the design of the contracts via which options are transmitted to executives, the disclosure requirements surrounding the issue and tenure of such instruments, and the governance arrangements set in place to ensure that the issue of options to executives does promote value creation rather than wealth transfers from the corporators as a whole to a select group of option owning insiders.

Perhaps given the unusual combinations of incentives identified and discussed above, it should not be surprising to learn that at present, there are essentially no binding requirements in any jurisdiction of which we are aware for companies to include the cost of options they have issued as an expense in the calculation of their profit and loss data. We believe that this is inappropriate, and discuss our reasons for this belief below.

3 Debates About Financial Reporting Practices

Why do we not have the mandatory expensing of the costs of employee option schemes? Attempts were made by the Federal Accounting Standards Board in the United States in the early 1990s to change the accounting treatment of stock options so that the cost of stock options would have to be recognised as an expense in the books of companies issuing the options. The United States Senate received heavy lobbying against the proposal by a coalition of business interests, who argued that recognising option expenses in the books of companies would lower profits and have a significantly adverse impact on market capitalisation. They asserted that this would destroy confidence among investors and impact on the country's highly successful model for creating new businesses. We find the argument astonishing: could a change in accounting rules have such an impact on the real economy? As recently put by Alan Greenspan, chairman of the Federal Reserve, at a speech at New York University:

> *"If investors are dissuaded by lower reported earnings as a result of expensing, it means that they were less informed than they should have been. Capital employed on the basis of misinformation is likely to be capital misused"*[22].

The FASB proposal was lost, but a compromise was reached. The compromise recommended, but did not require, that companies report the cost of options granted to employees at fair market value in their financial reports. In most cases this has taken the form of providing information on stock options in the footnotes of financial reports.

Since the collapse of Enron, the expensing issue has again hit the headlines and a vigorous debate has emerged. Let us consider the arguments put forward by those against expensing share options.

The first argument typically encountered is that no cash changes hands and so share options are not an expense. But do employees provide their services for free? Consider two companies. One remunerates its employees entirely with cash; the other uses a combination of cash and share option grants. Why does the second company attract employees? They are attracted because in addition to cash compensation, they are gaining something of value from the company - an opportunity to gain in its future wealth. Options are granted to employees to get them focused on share price, the premise being that greater effort will result in higher future earnings, and if there is not a compensating increase in risk, a higher share price. The employees are able to directly participate in the gains they have created through their extra efforts. Outsiders, however,

can gain an identical opportunity by purchasing call options on the company's stock - but they have to outlay current resources for this opportunity. It is this premium that provides a basis to measure the transfer of value from the company to the employee in the case of executive option schemes. It is nonsensical to conclude that there has not been a transfer of value from the firm to its employees in the granting of stock options simply on the basis that there has not been a transfer of cash to employees.

Taken to its extreme, consider a scenario in which the remuneration to employees (or the providers of any services to the firm, for that matter) is provided solely in the form of share option grants. If no expense were recognised, this would clearly distort the measurement of reported earnings in the company and render meaningful analysis impossible. It is probable that the only basis for comparison with other companies would be in terms of a single simple ratio - earnings per share (EPS). While earnings would be larger in our hypothetical company that paid no cash wages, these higher earnings would be diluted over a larger number of shares.

What is the difference, we ask, between a company issuing options (warrants) in the market and using the cash proceeds to pay employees for services performed, and a company issuing options directly to employees? Under the former, an expense would be recorded reflecting payments to employees. If the economic impact on the company is the same, why would an expense not be recognised under the latter?

A second argument put forward for not recording stock option expenses is that option costs are captured in diluted EPS, a simple proxy for the impact on employee stock options on the worth of existing shareholders. Diluted EPS can be found in the footnotes of the annual reports of companies that issue employee options. If this measure does correctly incorporate the cost of executive options, then why not recognise the expense directly in the statement of financial performance where it is readily accessible and more easily interpreted by the users of financial statements? Why cloak the impact of employee stock options in a diluted-EPS ratio in the footnotes to the accounts? If employees were paid directly in stock options, would it be sufficient to say that the impact on the firm is captured in the diluted- EPS measure and there is no need to record an expense in accounts of the firm? It seems not.

There is cause to question to validity of the diluted-EPS measure as an indicator of the impact on stock option schemes on the stake of existing shareholders. First, it is based only on in-the-money options, and thus ascribes no costs to options that carry value but which are not in-the-money. Further, dilution happens later - if and when options are exercised - which is distinct from the cash forgone by granting free options to employees in the current period.

A third argument by those against expensing the cost of stock option schemes is that the cost or value of these schemes cannot be accurately estimated. They argue that while option-pricing models are a good guide for valuing publicly traded options, they are not useful for employee stock options, which are private contracts between company and employee that cannot be freely traded. In other words, they are less liquid and this reduces their value in the hands of the employee.

To address this issue, consider the case of a hypothetical business school employee who is given the choice of a cash bonus or a complimentary spot in the MBA program at the school. If the employee selects the spot in the MBA program and there are no spare places in the program, it is easy to measure the cash cost to the school in terms of revenue forgone and direct costs incurred in servicing the employee. If there is excess capacity in the program, then the cost to the school represents the cost of tutoring, assessment and the consumption of any other relevant resources. Should the business school recognise an expense in its books that represents the value of the program in the hands of the employee? How would this be measured? All the reporting entity need be concerned with is the cost to the entity arising from this transaction, not the value placed on it by the employee. The MBA spot is clearly less liquid than cash in the hands of the employee, but the employee was prepared to take the spot on offer because of the perceived future benefits it confers.

The lower liquidity of employee options should not influence the way companies record their cost. This is because financial statements reflect the economic perspective of the entity, not the parties with which its transacts. The lack of liquidity makes no difference to what it costs the issuer to create the instrument. When a company records a cash wage expense, it does not have verify what that wage is worth to the individual. The fact than an employee might get a higher or lower wage[23] in similar position elsewhere does not influence the amount recorded as an expense. Similarly, when a company sells a product to a customer, it does not have to verify what that product is worth to the individual.

It is true, however, that performance hurdles and other factors complicate the valuation of employee options. One Australian company, BHP, recently reported that these complications rendered the valuation of employee options schemes as 'indeterminable'[24]. We ask whether a senior executive would truly accept a compensation scheme in lieu of cash where the value of the scheme is indeterminable? The valuation of options schemes with performance hurdles is difficult, but not insurmountable[25]. Carrett and Wong (2001) assert that robust valuation techniques can be used value options schemes with complex performance hurdles[26].

Financial statements should aim to be 'approximately right' in reflecting economic reality. If companies routinely rely on estimates for significant cost items such as depreciation on plant and equipment and provisioning for future employee entitlements in their financial statements, why should it be any different for share option schemes?

4 Alternatives to the Status Quo

The International Accounting Standards Board (IASB) reached consensus in mid-2002 regarding the release of a draft proposal on accounting for share options. The proposal, which states that all share-based payments should be recognised in the financial statement of issuing companies, represents a significant deviation from the current requirement in Australia that companies merely disclose details on option schemes, with no uniform disclosure policy. The Australian Accounting Standards Board has determined that the IASB standard on share options will apply in Australia by 2005.

At the time of writing, there has been no guidance as to what valuation models should be used for calculating share option expenses or how option expenses should be recognised. If options granted to executives are valuable at expiry, then a

transfer of wealth between the firm as a whole and the recipient employees will take place. This will be so whether settlement takes place in cash or physical form. If the latter takes place, then the issuing firm will need to enter capital markets to purchase sufficient shares to transfer to executives exercising options. The effective value of the cash transfer will be the difference between the purchase consideration for the shares and the strike price of the options exercised. In the case of cash settlement, the cash transfer will be of the same value, though achieved through less circuitous means.

Were a cash based system of accounting operative, then there would be no choice other than to recognise an expense at the time this cash transfer took place. Clearly, in a cash based model of accounting, there is a definite point in time at which the expense associated with an executive options plan must be recognised, and no room for doubt about the extent of that expense.

The only difference which arises in an accrual context is the timing of recognition, which can be handled through the application of a simple provisions based accounting structure. At the simplest level, this would require the initial recognition of the assessed fair value of options granted as an expense, with the matching creation of a provision. As the underlying valuation parameters (primarily share price and volatility) changed over time, the level of provisioning would be updated by a mark to market process. Dynamic application of this process throughout the life of the options would mean that by the expiry of the options, the amounts recognised as expenses throughout the life of the options would equal the value of the cash transfer ultimately made.

An alternative accrual-based system would amortise the assessed fair value of options granted as an expense on a straight-line basis over the expected life of the option. This would be in keeping with the matching principle of accounting that requires the costs of generating revenues be recognised at the same time that the revenues are recorded. In the case of options, it is difficult to predict the pattern of benefits to the firm arising from the decisions and actions of employees incentivised under option schemes, and significant measurement bias could be introduced if the fair value of options were not amortised on a straight-line basis.

As with the mark-to-market approach outlined above, changes in the value of the option schemes would be periodically measured and amortised over the remaining life of the option. This approach would also mean that by the expiry of the options, the amounts recognised as expenses throughout the life of the options would equal the value of the cash transfer ultimately made to employees; the only difference between this approach and that outlined above being amortisation of option expenses over the life of the options.

Failure to adopt a process in which the expense associated with the issue of options is systematically recognised has impact not only on assessed earnings through time, but also on the shape of the balance sheet, including the stated level of owners' equity and the balance between assets and liabilities. Because of this pervasive effect, it is possible that organisations faced with restrictive debt or regulatory covenants defined on the basis of financial statement variables would be closer to default if a systematic expense recognition requirement in relation to executive options schemes were adopted.

5 Conclusion

Options have been treated, in some quarters, as a panacea for the ills of the principal - agent problem. As a result, the degree to which they are used as a component of executive remuneration packages has grown dramatically over the course of the past decade. In our view however, grave problems surround the use of these instruments.

First, we believe that the accumulation of published empirical research which has emerged over the past few years demonstrates that while in theory options may be able to play a role in stimulating managers to take greater account of the interests of shareholders as a whole, in practice there appear to have been many exploitable flaws in the structure of and governance arrangements pertaining to existing options plans. In many cases, these difficulties will not be able to be overcome without considerable reforms to internal oversight and control processes, particularly with respect to the design of appropriate performance hurdles and benchmarks, the orientation of directors to long term value creation rather than transient but well timed share price inflation and far better disclosure and ratification requirements relating to the entry into private treaty risk management contracts by executives wishing to modify or remove their options related risk exposure.

Second, it seems axiomatic to us that the issue of options by companies is not an event which transpires free of financial burden to the company, and by extension, its shareholders. Yet the fiction that this is so is played out in contemporary financial statements throughout the developed world on a day by day basis. Arguably, the lack of a requirement that the cost of options issued to employees be recognised systematically as a business expense has privileged options when compared to other potential forms of remuneration. This may have led to a far greater reliance on options than is either optimal or appropriate.

Perhaps the most troubling aspect of the options juggernaut, (particularly in Australia which until very recently has had no standard in place directing even the nature of disclosures to be made in annual financial reports in relation to options issued to employees[27]), is the lack of transparency which has surrounded it. This has meant that even in circumstances where significant quantities of options with material value have been provided by corporations to their employees, the extent to which value redistribution or dilution might take place as a result has not been at all apparent to financial statement recipients. This is a highly unsatisfactory state of affairs, and it is to be hoped that in turning their attention to standards mandating a more thorough account of affairs, operative from as early as 2005 onwards, policy makers are guided most strongly by a pursuit of maximum transparency.

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