

Should employee share options be expensed in an entity's financial statements?

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Abstract

This paper investigates the debate as to whether employee share options (ESOs) should be expensed in an entity's financial statements as required by the IASB's *IFRS 2 – Share-based payment* (2004). The paper presents arguments for and against expensing ESOs, demonstrating that compensation of employees via ESOs is a *bona fide* expense in terms of the recognition and measurement criteria of the IASB Framework. It concludes that, the substance of an ESO transaction is that the entity pays an employee for his services, albeit with a different financial instrument. Consequently, the accounting treatment of such compensation should be the same as for any other payment of services of an employee.

Key words

Call option

Compensation

Economic distortion

Employee share option

Expenses

Recognition vs. disclosure

Share market bubble

1 Introduction

Sacho (2003:59) defines an employee share option (ESO) as a call option written by a company and granted to its employees in exchange for their services received or to be received. In the last decade there has been an increase in the use of employee share options as an incentive device for top executives in companies round the world, especially in the United States. Border (2002) reports that in the United States, for example, the value of share options awarded to senior management by boards of directors grew from \$50 billion in 1997 to \$162 billion in 2000. Hall and Murphy (2002:4) note that in the 1999 fiscal year, 94% of Standard & Poor's top 500 companies granted options to

their top executives, compared to 82% in 1992. This shows a 12% increase in the number of ESOs granted in a space of only seven years. Authors such as Espahbodi, Espahbodi, Rezaee and Tehranian (2002:344) argue that this growth in the use of ESOs as a form of executive compensation was not due to the incentive effects induced by ESOs, but was rather a function of the fact that ESOs' costs did not have to be recognised in an entity's financial statements. However, the recent dot-com implosion and meltdowns at Enron, Global Crossing and WorldCom in the United States and other companies around the world has revealed what many had forecast: by not recognising ESOs as an expense, companies were doing window-dressing on their corporate earnings; and the financial statements did not fairly represent the financial results of such companies (McGraw 2002).

This paper investigates whether ESOs as financial instruments meet the recognition and measurement criteria set out in the IASB framework. In doing so, it examines the various arguments presented in the relevant academic literature for and against the recognition of ESOs. Based on this literature review, it demonstrates that payment of an employee with ESOs is a *bona fide* expense that should be reflected in corporate accounts. Not doing so leads to a serious distortion in the accounting numbers and in share price valuations. The paper shows that ESOs are valuable financial instruments used to compensate employees for their services. In the same way that an expense is recognised if an employee is compensated with cash or is paid on credit, so too an expense must be recognised if an employee is compensated using an ESO.

The remainder of the paper is organised as follows: Section 2 introduces the expensing debate; Sections 3 and 4 discuss whether ESOs meet the recognition requirements set out in the IASB Framework; Section 5 examines other arguments as to whether or not ESOs should be expensed; and Section 6 sets out the conclusions of the paper.

2 An introduction to the expensing debate

Rouse and Barton (1993:67) and Dechow, Hutton and Sloan (1996:1) have described the accounting for ESOs as the most controversial accounting issue of the last two decades. To date, no accounting standard setting authority worldwide has consistently required ESOs to be recognised expenses to corporate earnings, including the United States-based Financial Accounting Standards Board (FASB) and the London-based International Accounting Standards Board (IASB). Several authors, notably Espahbodi *et al.* (2002:344), Greenspan (2002) and Campbell (1961:58), have argued that the spread of ESOs as an incentive plan was not only influenced by companies' desire to motivate employees, but also by the fact that no expense for the cost of the ESOs needed to be recognised in the income statement. In fact, Thompson (2002) reported that former Enron Chief Executive Officer (CEO) Jeffrey Skilling testified before the United States Congress that compensation using share options was an egregious way of inflating earnings – “you issue stock options to reduce compensation expense,

and therefore increase your profitability". This is perhaps most evident from the way Apple Computer accounted for CEO Steve Jobs's salary. Their income statement showed \$1 as his salary over the past two years but, in early 2000, he was awarded 10 million share options valued at almost \$400 million! This \$400 million was not charged to the income statement, consistent with the prevailing United States accounting standards at the time (Botosan and Plumlee 2001:311-312). This example reveals how ridiculous the situation can be, in that a company as large as Apple Computer was able to compensate its CEO with an exorbitant salary, but was able to recognise only an expense of \$1.

Between 1995 and 2001, some CEOs received excessive compensation, but such costs were not charged to earnings. This built a "paper castle" underpinned by excessive share prices on the back of highly inflated earnings during the information technology boom. In fact, in the midst of the 1998 bull market, Morgenson (1998:213) wrote about the apparent "free lunch" that companies were experiencing as a result of this bull market. She described how United States companies used ESOs to keep employee costs down (as ESOs were not charged to the income statement) on the back of a rising share market and appreciating earnings (Morgenson 1998:217). Just over two years after Morgenson's (1998) article, the share market crash of 2001 and the spate of corporate scandals in the United States in 2002 began to crumple the ramparts of this paper castle, created by the long bull market run. Transparency, corporate governance and a quest for greater confidence in financial reporting have become the order of the day (Schilder 2002). It is in the light of these changes that the ESO expensing debate has erupted, but only time will tell whether the recent issue by the IASB of IFRS 2 – Share-based Payment in February 2004 will end this debate.

In order for an item to be recognised in the financial statements, the item must meet the definition of an "element" (it must be an asset, a liability, equity, income or an expense) and the recognition criteria in terms of the IASB Framework (IASB 1989:para. 83). The sections below analyse whether an ESO transaction meets the recognition criteria set out in the IASB Framework.

3 Does the ESO transaction meet the definition of an expense?

The first question that needs to be asked is whether the economic act of compensating an employee by means of an ESO meets the definition of an "expense" (thus, whether it is an "element" for the purposes of the IASB Framework). The IASB Framework defines expenses as "decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants" (IASB 1989:para. 70(b)).

The Frazier Research and Analytics (FRA) Investment Education Series (2002) maintains that, because ESOs do not result in a "financial outflow", "the use of an asset" or "the incurrence of a liability", they are not "expenses" as

defined since they provide cash inflows to the entity when employees exercise them. Similarly, the European Employee Stock Options Coalition (EESOC) argues that an expense is only required when an asset is diminished or when a liability is incurred. As the issue of share options does not satisfy any of these requirements, the EESOC contends that no expense should be recognised (EESOC 2003:24). However, these institutions have ignored the fact that the entity is paying the employee for his services with a valuable financial instrument and it is this payment which is the cost to the entity. The subsequent exercise of the ESO is transaction separate from the compensation of an employee with an ESO instrument.

Furthermore, the IASB rejects the notion that payment for services with ESOs does not meet the definition of an expense. It states that when a person provides services to his employer, the services received by the employer are initially an asset. The reason is that when a service is acquired by a company, the entity initially controls an asset, since services are economic resources (factors of production). Thereafter the service assets can either be immediately consumed or used in the creation of other assets (IASB 2004:para.BC47). However, this does not detract from the fact that services are initially assets, albeit momentarily. Therefore, if the entity purchases an employee's services with cash or ESOs, the journal entry should be the following:

Dr. Service assets	X	
Cr. Bank or ESOs		X

Being the acquisition of services

As and when the services are used up or depreciated (which is often immediately), the service assets are consumed. The journal entry for the consumption of the service assets would be the following (assuming the services are fully consumed):

Dr. Services expense	X	
Cr. Service assets		X

Being consumption of service assets

Consequently, if a company compensates its employees by means of ESOs, the ESO transaction meets the definition of an "expense" since the ESO transaction has caused a "decrease in economic benefits" to the entity, since the acquired service assets have been consumed, which decreases the entity's equity (IASB 2004:paras.BC43-BC44 & BC48-BC51). This proves that the ESO transaction does meet the definition of an "element" of financial statements and therefore disproves the comments of the opponents of expensing ESOs that ESOs do not meet the definition of an expense.

Greenspan (2002) states that in order to determine a company's profit, the value of output less the value paid for the input resources must be measured, irrespective of the instrument used to acquire the input resources. The FASB suggests that, although ESOs cannot be traded and have restrictions inherent in them, this does not mean that they are valueless. On the contrary, the grant is made to acquire the services of the employee, which has a value equivalent to

the cash or other payment required to acquire such services. Thus, Greenspan (2002) and the FASB contend that not recognising share options as an expense implies that either the share options were granted to the employee for free, or that the employee's services, which created valuable output for the entity, were free. Both these assumptions are contrary to the economic reality (FASB 1995:paras.76-77; Greenspan 2002). Therefore, these authors have correctly stated that paying an employee with a different financial instrument does not detract from the underlying economic fundamentals of the compensation transaction. For the sake of consistency, such transactions must be accounted for in the same way and any compensation paid in the form of ESOs must be recognised in the financial statements. This is in line with the "consistency principle" required by the IASB Framework (IASB 2004:para.39).

Empirical research is available which supports the idea that ESOs are an expense. Aboody, Barth and Kasznik (2001:2-3), found that share-based compensation has an inverse relationship with the entity's share price, indicating that investors perceive such compensation as an expense. The data used in their study comprised 534 firms included in the Standard and Poor's mid-capitalisation and small capitalisation indices from 1996 to 1998. Consistent with their price-based findings, these researchers found a significant negative relationship between movements in share prices and changes in share-based payments, indicating that the perceived cost of share-based payment expense is reflected by investors in the share price (Aboody *et al.* 2001:2-3). This demonstrates that ESOs are a cost and are reflected in the share price. Thus, ESOs should be recognised in the financial statements, which are the main sources from where share prices are determined.

Nevertheless, Derieux (1994:41) maintains that, although in theory the ESO transaction may meet the definition of an expense, granting share options to employees is an internal transaction since no party outside the organisation can participate, because ESOs can never be sold. He argues that this situation is similar to internally generated goodwill, which is specifically prohibited from being recognised in financial statements in terms of *IAS 38 – Intangible assets* (para.36) (issued July 1998 and revised December 2003) and *Statement No. 142 (SFAS 142) – Goodwill and Other Intangible Assets* (para. 10) (issued June 2001 and revised October 2002). Only goodwill purchased in a transaction with a party outside the organisation can be recognised, when the value thereof can easily be determined. Consequently, he holds that, although ESOs do have value, they are an internal creation of value, which cannot be recognised in the financial statements until there is a transaction with a party outside the organisation (Derieux 1994:41).

It is submitted that the argument presented by Derieux (1994) is unfounded, because the employees of an entity and even the shareholders of an entity are separate from the entity: in most countries, corporate entities such as companies are separate legal personae that exist apart from their shareholders and employees. Therefore, the notion that the appreciation in the value of ESOs is an internal creation of value (such as internally generated goodwill) is incorrect.

Furthermore, the reason that internal goodwill is not recognised in financial statements is not because it is an internal creation of value, but because it cannot be measured reliably, due to subjectivity in attributing value to it (IASB 1998b:para.37). However, as explained in Section 4 below, ESOs can be measured with sufficient reliability. Hence, the comparison between ESOs and internally generated goodwill is incorrect.

Michel and Garwood (2002:4) argue that, by its very nature, an ESO transaction is an opportunity cost to the entity, because issuing ESOs to an employee in exchange for his services results in the entity forgoing the cash it could have received in exchange for such options from underwriters (namely the option premium). These authors maintain that if this opportunity cost must be recorded, then the opportunity costs of all other transactions must also be recorded in the financial statements. This would make it impossible to make relevant comparisons between corporate accounts, because of the subjectivity involved in estimating such costs. Hence, they take the view that ESOs are not a genuine expense, but rather an opportunity cost, which must not be recorded, as recording such a transaction would prevent comparability and faithful representation of all transactions (Michel and Garwood 2002:4).

It is submitted that these authors have failed to analyse the true economic nature of an ESO. When an entity compensates an employee with ESOs, the employee has been paid with a financial instrument, which is an obligation upon the entity to issue shares at the exercise price, as opposed to their fair value. In other words, the entity has potentially forfeited in advance the difference between the fair value of the underlying shares at exercise date and the exercise price of the ESOs, and has used such potential forfeited proceeds to compensate the employee. (The ESO obligation is only a potential obligation, since it is contingent upon the ESOs' vesting and being in-the-money at the exercise date.) This ESO obligation of the entity is equal to the opportunity cost to the entity of forfeiting the potential proceeds it could have received if it had issued its shares at fair value. However, it must be emphasised that the entity is not recognising an opportunity cost *per se*. Instead, the economic nature of the ESO instrument is that it derives its value based on the opportunity cost to the company of issuing its shares at the exercise price, as opposed to the fair value thereof at exercise date.

Other authors, such as Cavallo (2002), Malkiel and Baumol (2002:A18), McGraw (2002) and Rouse and Barton (1993:67-68), contend that an expense for ESOs should not be recognised in the income statement, because the issue by the entity of its shares to settle the ESOs is a capital transaction, which results in a change of the shareholders' percentage holding in the entity. Such an effect is not a cost to the entity as such, but rather a dilutive cost to the individual shareholder. Thus, the only visible effect of issuing ESOs is that on the reported earnings per share (EPS) number when the options are considered dilutive. Such authors feel that this is already adequately reflected in the diluted EPS number (Cavallo 2002; Malkiel and Baumol 2002:A18; McGraw 2002; Rouse and Barton 1993:67-68). It is submitted that these authors do not take

into account that the dilutive cost of ESOs is an issue only for an individual shareholder and not for the entity as a whole. Furthermore, to contend that ESOs are a capital transaction between shareholders is incorrect, since the entity and its current and potential shareholders are two separate legal entities and any transactions between the two must be recorded.

Merritt and Borders (2000) argue that ESOs represent a decision by shareholders to part with a percentage of their claim on the future earnings of the entity in order to align employee interests with the success of the entity and growth of shareholder value. Thus, they hold that option payments are not compensation payments, but rather a unilateral offer by the shareholders of the entity to share the financial rewards of the future enhanced business. According to these authors, there cannot be a cost to the entity if “an individual has agreed to make a contribution of human capital in exchange for an opportunity to share in risks and rewards with cash investors” (Merritt and Borders 2000). The IASB rejects this argument on the grounds that it is the *entity*, not the shareholders, that issues ESOs in exchange for services rendered by the employee. It concludes that the granting of ESO instruments, in substance, is no different from the issue of a normal share purchase warrant (or any other equity instrument) in exchange for cash. With the issue of a share purchase warrant for cash, the entity receives resources (cash) for the options and further resources (cash) upon the exercise of these options. With the issue of ESOs for services, the entity also receives resources (employee services) in exchange for the issue of the ESOs and further resources (cash) for the issue of shares upon the exercise of the ESOs (IASB 2004:para.BC35). Therefore, ESOs cannot be considered capital transactions, since it is the entity, not the shareholders, that issues ESOs and they are economically equivalent to the employee’s subscribing for the ESO instrument in exchange for his services. To be consistent with the accounting treatment of the issue of shares for cash, the entity must also record the issue of ESOs for employee services in a similar manner.

From the discussion in this section, it is evident that the ESO transaction meets the definition of an expense. Whether the ESO instrument is equity or a liability is a separate discussion which falls beyond the scope of this paper. For the sake of simplicity, in the rest of this paper it is assumed that the ESO instrument is to be classified as equity, since this is the view taken by the IASB in *IFRS 2*.

4 Does the ESO transaction meet the recognition criteria in terms of the IASB framework?

According to the IASB Framework (IASB 1989:para.83), an item that meets the definition of an element must be recognised if:

- It is probable that any future economic benefit associated with the item will flow to or from the enterprise.
- The item has a cost or value that can be measured with reliability.

For ESOs, because the employee renders services to the entity in exchange for his ESOs, it is safe to assume that it is probable that such services will result in future economic benefits to be used by the entity. Therefore ESOs satisfy the first criterion. However, it is the second criterion which has caused much of the controversy regarding whether ESOs should be recognised. This section examines the debate as to whether ESOs can be measured reliably for accounting purposes so as to warrant recognition in the financial statements.

According to the accrual concept of accounting (as defined in the IASB Framework), if an employee renders services to his employer, the expense for his compensation must be recorded in the period in which the services are rendered and not when cash is finally paid to the employee (IASB 1998a: Objective). If it were to be assumed that ESO grants must be expensed in the financial statements, the value of the ESOs granted to the employee in exchange or in payment for his services would need to be determined at an interim stage, before the exercise date, in order to recognise the compensation expense in the income statement when the services are rendered, and not when the cash is paid for such services. The problem with ESOs is that the valuation thereof is complex and highly controversial.

Because an ESO is a type of call option, option pricing models, such as the Black-Scholes model or the Cox-Ross-Rubenstein binomial model, could be used to value the ESO instrument. However, such classic option pricing models were specifically developed to value traded options, which can be bought or sold on the open market (Brown and Katsanis 2002). Since ESOs differ in a number of important respects to traded options, valuing ESOs using an option pricing model such as the Black-Scholes model may not produce accurate results (Malkiel and Baumol 2002:A18). Nevertheless, most United States companies have used the Black-Scholes model to arrive at the value of ESOs to calculate the *pro forma* effect on earnings per the allowed alternative of SFAS 123 – *Accounting for Stock-based Compensation*, the prevailing United States accounting standard on ESOs (Berton 1992:A2; Rouse and Barton 1993:70). However, many researchers (Frederick W. Cook and Co., Inc. 2002:2-3; Maxim Integrated Products Inc. 2002:3-4; Hall and Murphy 2002:37) have found that the use of the Black-Scholes model to arrive at the fair value of outstanding ESOs grossly distorts their value, in that this valuation model overvalues ESOs.

On the basis of this finding, those who oppose expensing ESOs reason that there is no accurate, reliable and consistent way of valuing ESOs. They feel that, because option pricing models do not measure the value of ESOs on the date the services are rendered accurately, the veracity of financial statements would be impaired, not improved, by adding an expense of a hypothetical value (Frederick W. Cook and Co., Inc. 2002:2; EESOC 2003:28). The opponents of expensing ESOs feel that it is better to report a value of zero for ESOs, as this makes financial statements more comparable and reliable (IASB 2004: para.BC302). Furthermore, Ciccotello and Grant (1995:73) argue that most

users and preparers of financial statements would be unfamiliar with the intricacies and mathematics involved in option pricing models and would therefore be unable to value ESOs correctly. These authors also oppose the use of option pricing models because they maintain that such models rely on assumptions that can be confidential or manipulated (Ciccotello and Grant 1995:73). However, it is submitted that this argument fails to take into account the fact that the entity can use an expert in the field of option pricing to value its ESOs for financial reporting purposes, and that its auditors would audit such a valuation, allowing it to be recognised with sufficient accuracy in the financial statements. This is consistent with *IAS 19 – Employee Benefits*, which recommends that the entity use an actuary to value its post-employment benefit liability (IASC 1998b:para.57).

Furthermore, the proponents of expensing ESOs reject the arguments of those who oppose expensing ESOs on two counts. Firstly, Aboody *et al.* (2001:3) found a significant inverse relationship between share-based compensation expenses and share prices, which indicates that investors are able to measure such expenses with sufficient accuracy and reliability. Secondly, although the Black-Scholes model may overvalue the value of options, it is by no means the only option pricing model. The model can also not be adjusted to reflect the differences between ESOs and traded options. Today there exists a large body of option pricing models which have been specifically developed for valuing ESOs (see, for example, Cuny and Jorion 1995; Maller, Tan and Van de Vyver 2002; Carpenter 1998). The proponents of expensing ESOs argue that, although such option pricing models provide only estimates of the actual value of ESOs, the reporting of an estimate for the value of an ESO is not objectionable. They note that accounting often involves making estimates. For example, material estimates are made for the collectability of doubtful debts, the useful life of fixed assets and the pattern of their consumption, and for employee pension liabilities. To them, making such estimates does not detract from the reliability of financial statements (IASB 2004:para.BC296). This is consistent with *IAS 8 – Accounting Policies, Changes in Accounting Estimates and Errors*, which states that the use of reasonable estimates is an essential part of the preparation of financial statements and does not undermine their reliability (IASC 1993: para.33). In fact, users of financial statements are aware of the limitations of financial statements and, in any event, the bases for estimates are subject to an external audit and are usually disclosed in the financial statement notes. Greenspan (2002) notes how very material amounts of income and expenditure are recognised in the financial statements, which are as a result of changes in the valuation of items that depend on the outcome of forthcoming events (which by their very nature are uncertain). Thus it is absurd to state that ESOs cannot be recognised because of measurement uncertainties.

However, the opponents of expensing ESOs argue that the inclusion in the accounts of an estimate of the fair value of ESOs is different from and not comparable to other accounting estimates. Although estimates are routinely

used in calculations of amounts such as pension obligations, allowance for bad debts, depreciation and deferred taxes, those estimates eventually result in cash payments by the entity (they are “trued up”) and poor estimates only distort the intertemporal allocation of income. With ESO value estimates, the value that is initially provided for ESOs is never trued up to reflect the employee's actual gain, if any, from exercising his ESOs (which is the eventual cost of the ESOs to the entity). As a result, the opponents of expensing ESOs contend that poor estimates of the value of ESOs permanently distort financial statements and therefore ESOs should not be valued at all to prevent such distortion (IASB 2004:para.BC297; FASB 1995:para.112).

The FASB rejects the argument that the cost of ESOs is never trued up to the actual gain to the employee when he exercises his ESOs. It argues that in the case of a normal expense although the total amount ultimately paid for such an expense, equals the total amount accrued to each period, the appropriate amount attributable to any individual year is never trued up. The reason for this is that the precision of the reported total liability cannot be determined exactly at any date while it is being incurred. Any change in the value of the liability attributable to the expense recognised in respect of a prior period is not adjusted against the expense recognised in prior periods, but is rather accounted for as a change in accounting estimate accrued during the period of change. In any event, by the time the liability and the expense are trued up to the eventual cash payment, users have already made economic decisions based on the estimated amounts. Therefore, the argument that ESOs cannot be recognised simply because they are never trued up must apply equally to annual estimates such as post-retirement benefits, provisions and contingent liabilities (FASB 1995: para.113). In order to treat ESOs consistently with other transactions requiring estimates, they must be recognised as an expense. The IASB notes that not recognising ESOs effectively means they are recognised at zero which does not solve the problem of truing up. Instead, it compounds the problem, since there is still a permanent error embedded in the accounts, in that the cost of ESOs is vastly understated (IASB 2004: para.BC299). This further misleads the user, since a cost of zero is charged for the compensation paid to the employees for their services, which is patently ridiculous.

Finally, it is contended that the argument of the cost of ESOs not being trued up is unfounded, since ESOs are, in fact, eventually “trued up”: when the employee exercises his ESOs, the proceeds of the exercise are debited to the bank account of the entity, the share capital account is credited with the fair value of the shares on the exercise date, the ESO account is debited with its balance at the exercise date and the balancing figure is charged to equity or earnings, depending on the accounting model used. Thus, over the life of the ESO, the entity's earnings do eventually reflect the final intrinsic value of the ESOs (which is the eventual cost to the entity of the ESOs) and hence, poor estimates of ESO value can at most only distort the intertemporal allocation of income.

5 Other arguments regarding the expensing of ESOs

The discussion in Sections 3 and 4 has shown that ESOs do in fact satisfy the recognition requirements in terms of the IASB Framework and should therefore be recognised in the financial statements. The subsections below examine further arguments presented by the opponents of expensing ESOs. These arguments are not directly related to the IASB Framework. In each subsection, the argument(s) opposing expensing ESOs is presented first, followed by the argument(s) for expensing ESOs in the financial statements.

5.1 *The cost of outstanding share options is already reflected adequately in the diluted earnings per share number*

As early as 1932, Berle and Means (1932:151-152) referred to the potential dilution of the value per share due to share options. Since the entity is the option writer in the case of ESOs, if an employee exercises his ESOs, the entity needs to tender its shares at the exercise price to settle the ESOs. This results in the issue of additional shares by the entity to settle the ESOs, which then dilutes the value of each *existing* share (also called a *share overhang*), since existing earnings are now spread over more shares. Accordingly, it is argued that this dilution as a result of the transfer of part of the market capitalisation owned by existing shareholders to ESO holders is one of the costs of ESOs (Michel and Garwood 2002:3 and 11). Therefore, on the date when ESOs are granted to an employee, a potential dilution to the firm's existing shareholders' returns is created. In order to disclose this potential dilution to shareholders, most accounting standards around the world propose the use of the *treasury method*. This method requires the denominator in the EPS calculation to be adjusted for outstanding share options to reflect a *pro forma* earnings per share (known as the *diluted earnings per share*) which would ensue if the share options were to be exercised on the relevant reporting date (IASB 1997:para.31).

Although the treasury method has its shortcomings, opponents of expensing ESOs argue that this method is the only generally accepted, reliable and comparable method of reporting the cost of ESOs to the entity (FRA Investment Education Series 2002; Maxim Integrated Products, Inc. 2002:5). The opponents of expensing ESOs feel that the potential dilution of existing shareholders' returns and ownership in the entity is the real cost of ESOs, which is already disclosed under diluted EPS and need not be reflected in the income statement as an expense (Rouse and Barton 1993:67-68; Michel and Garwood 2002:3). They believe that if an expense were to be recognised in the income statement, EPS would be "hit twice" – once in the denominator and again in the numerator (IASB 2004:para.BC54; EESOC 2003:7; Livingston 2002; Moreland 2002). However, as mentioned in Section 3, the dilutive effect of ESOs cannot be the cost of ESOs, since the dilutive effect caused by the potential exercise of ESOs is a cost to the individual shareholder and not to the company. The company does not lose anything when ESOs are exercised; in fact, it gains capital from an

exercise of ESOs. Consequently, the use of diluted EPS does not recognise the cost to the company of paying an employee by means of ESOs.

Furthermore, in response to the argument that ESOs need only be reflected in diluted EPS, the IASB divides the transactions surrounding ESOs into two groups. Firstly, the company compensates the employee for his services by granting him ESOs. Thereafter, on the exercise date, the company (the option writer) settles the ESOs by issuing its shares at the exercise price. The payment for the services with ESOs and the subsequent consumption (or depreciation) of such service assets affects earnings (the numerator of the diluted EPS calculation). Issuing shares in the future in terms of the option contract (when they are "dilutive potential shares") affects the number of shares for the diluted EPS calculation (the denominator of the diluted EPS calculation) (IASB, 2004: paras. BC54-BC57). Thus, the so-called "dual effect" on diluted EPS is not double counting, but rather recording two different economic events. If only the dilutive effect of ESOs is disclosed, one of the transactions surrounding ESOs is omitted. Consequently, the use of the diluted EPS number does not fully recognise the cost of ESOs in the financial statements.

The IASB also notes how expensing ESOs reflects the economic consequences of ESOs far better than non-expensing. It states that if the entity had paid cash for the employee's services, only the numerator of the EPS calculation would have been affected, but not the denominator. The company could prevent a decrease in its EPS by simply increasing its revenue streams to offset the charge to the earnings figure (the numerator) for the employee's services purchased and consumed. However, when the employee is paid with ESOs instead of cash, not only is the company required to increase earnings (the numerator) to maintain its EPS, but it must also increase earnings by a far greater margin so as to offset the dilutive effect caused by the increase in the denominator due to the future issue of the shares to settle the ESOs (IASB 2000: paras.3.21-3.22). Thus, by not expensing ESOs, the EPS number becomes more distorted, since the numerator is understated and it does not facilitate the correct comparison of the diluted EPS of a company that compensates its employees with ESOs to a company that does not compensate its employees with ESOs.

5.2 The disclosure of ESOs in the financial statements is sufficient

The International Employee Stock Options Coalition (IESOC) declares that, because no valuation method exists that can provide shareholders with accurate and reliable numbers, full disclosure of option plans would be better for investors than expensing ESOs (IESOC 2002). Tyson (2002:14) argues that expensing ESOs makes financial statements more misleading. In fact, she believes that disclosing information about ESOs plans provides enough information to users of financial statements to assess the cost of ESOs, because she is of the opinion that share prices move in response to disclosure of information on ESOs and that investors make appropriate adjustments for the cost of ESOs themselves

(Tyson 2002:14). Similarly, Moreland (2002) observes that profits on option exercises are already reflected in Form 4 filings in the United States and the equivalent in other countries. He reasons that such information provides the market with adequate data regarding the compensation packages executives are receiving (Moreland 2002).

Such opponents of expensing ESOs implicitly believe in the so-called “efficient-market hypothesis” described by authors such as Fama, Fisher, Jensen and Roll (1969) and Fama (1970). In essence, the theory states that, provided all the necessary information is disclosed to investors, they will calculate the true economic profit of a company, which is reflected in the share price. Thus, even if a firm ignores the ESOs as an expense in its financial accounts, the market will not, and it will factor such information into the share price (*Economist* 2002). This notion is supported by Michel and Garwood (2002:10), whose research findings show that provided there is disclosure, the market is indifferent to the accounting rule for ESOs. Thus, the opponents of expensing ESOs feel that if investors are able to compute the cost of ESOs despite their not being recognised, there seems no reason why the recognition model should be used in addition to the disclosure model.

Nevertheless, the IASB Framework clearly states that the failure to recognise an element (i.e. an asset, liability, equity, income or expense) in the income statement or balance sheet is not rectified by the disclosure of explanatory material (IASB, 1989:para. 82). Similarly, Statement of Financial Accounting Concepts No. 5 (*SFAC 5*) – *Recognition and measurement in financial statements of business enterprises* concludes that disclosure of information without recognising the item is not a substitute if the item meets the recognition criteria (FASB, 1984:para. 09). Accordingly, because ESOs meet the definition of an expense they satisfy the requirements of an “element” of financial statements (see Section 3) and should be recognised accordingly.

The FASB emphasises that disclosure and recognition are not equivalent. Firstly, it states that items such as provisions, depreciation and warranties, which all require estimates but meet the definition of an element of one form or another, are still recognised in the financial statements, although their accuracy is subject to debate. Thus, ESOs should also be recognised, since the precision of computing their value is also not entirely accurate. In addition, the FASB contends that only disclosing information on ESOs and not expensing them permits only the most sophisticated of investors to estimate the actual impact of recognising the full compensation cost in the income statement. Furthermore, even the most sophisticated investor would not have access to all the information at the disposal of the entity itself to make an accurate estimate of unrecognised items (FASB 1995:paras.104-105). Consequently, the recently issued *IFRS 2* does not permit a choice between a disclosure model and a recognition model for ESOs. The IASB feels that granting a choice between recognition and disclosure causes a competitive disadvantage to entities that expense their ESOs, thus negating one of the cardinal principles of accounting, namely comparability (IASB 2004:para.BC293).

Academic research has been done to support the contention that the consequences of disclosure are different from those of recognition. Espahbodi *et al.* (2002) examined the share price reaction to pronouncements relating to accounting for share-based compensation and then assessed relevance of recognition versus disclosure in financial statements. Their results indicated that United States firms (especially high-tech, high-growth and start-up firms) exhibited significant abnormal returns around the FASB's issuance of Exposure Draft No. E-124 (ED E-124) – *Proposed Statement of Financial Accounting Standards: Accounting for stock-based compensation* (issued June 1993), which proposed the requirement of recognition of share-based payment costs, and also around the event reversing that decision to require only a disclosure model while encouraging a recognition model. The implication of the above results is that market participants value disclosure and recognition differently (Espahbodi *et al.* 2002:345 & 372). This supports the FASB and IASB's sentiments that disclosure is not a substitute for recognition. This is evident from the fact that, if disclosure were equivalent to recognition, requiring companies to disclose the cost of ESOs rather than mandating recognition thereof would have involved no new information and should not have affected the share prices following the withdrawal of ED E-124.

Such research has implications for the efficient market hypothesis. It implies that investors may be misled by reported profits that exclude the cost of options. Perhaps this supports writers such as Findlay and Williams (2001) and Daniel and Titman (1999), who argue against the efficient market hypothesis and therefore imply that investors who do in fact know the true economic value of ESOs do not necessarily drive out investors who are ignorant. This is evident from the fact that the share-market bubble of 1995 to 2000 actually occurred – if investors had fully appreciated all the accounting information disclosed in the notes, a share market bubble should never have occurred, since investors would not have been misled by inflated earnings numbers. The fact that the share-market bubble did occur proves that investors can be misled by inaccurate accounting numbers since they did not factor in the ESO figures disclosed in the financial statements.

Furthermore, the proponents of expensing ESOs conclude that the arguments of the opponents of expensing ESOs are contradictory. If the opponents of expensing ESOs feel that disclosure is equivalent to recognition, it should make no difference to them whether or not ESOs are expensed because, according to them, the market has already determined the “true” economic cost of ESOs in the share price. Therefore, whatever accounting cost is recognised for ESOs is irrelevant (Stiglitz 2002; Bodie, Kaplan and Merton 2003:69; Greenspan 2002).

5.3 *The expensing of ESOs will have adverse economic consequences*

The opponents of expensing ESOs argue that expensing ESOs would harm start-up firms and cut off the entrepreneurial activity of growing firms. The logic is

that new, entrepreneurial firms do not always have the cash to attract and retain corporate skills. Instead, such firms can use ESOs to attract and retain corporate talent by offering the people they need higher payments in the form of ESOs, as opposed to lower cash salaries (Malkiel and Baumol 2002:A18). The cash saved by granting employees ESOs can be employed elsewhere in the business. Furthermore, if ESOs are not reflected as an expense, this will result in higher returns from investments being recognised in corporate accounts. This, in turn, makes such companies' balance sheets look far stronger, allowing them greater access to capital than they would have had if they had expensed ESOs (Moreland 2002).

This was one of the main arguments put forward by the opponents of expensing ESOs in 1994 in opposition to the FASB's ED E-124. As mentioned in Subsection 5.2, this exposure draft, required United States companies to recognise the cost of ESOs in their financial statements (FASB 1993). It is no coincidence that 1994 was the year in which the information technology boom started. Therefore people such as T.J. Rodgers (President of Cypress Semiconductor) argued that expensing ESOs would hurt information technology companies such as Intel, Apple and Microsoft, due to earnings pressures induced by ESOs. He argued that this would cause high-growth companies not to grow and discourage small venture-capital investments from being established. In his opinion, this would result in less job creation and disaster for the United States economy (*Harvard Business Review* 1994:27).

The proponents of expensing ESOs respond to the above arguments by declaring that, because ESOs have an impact on the financial resources of a firm, a failure to subtract this compensation cost from pre-tax profits increases reported earnings and misleads potential investors as to the true input costs for generating the firm's revenue. This in turn causes the markets to overestimate the value of an entity, causing resources to mistakenly flow in the wrong direction. Such misleading financial reporting was part of the cause of the share market bubble of 1995 to 2000. During this period, many United States companies (including information technology companies) compensated their employees with fixed ESO plans, simply because these ESO plans did not require expense recognition in terms of the prevailing accounting standards. Such companies reported inflated earnings figures that failed to take into account the true input costs of generating the entity's revenue streams, since the ESOs were not expensed. Unaware of how misleading such numbers were, investors used such figures in their forecasts to value such companies, thereby inflating their share prices, contributing to the short-run phenomenon of the share market bubble of 1995 to 2000. The subsequent burst of the share market bubble in 2001, which caused share prices to plummet to realistic levels, has shown that markets can only allocate resources efficiently when prices accurately reflect underlying values. This can only be achieved by expensing ESOs, as this shows investors the true costs of a venture or firm (Stiglitz 2002; Greenspan 2002; Manitou Investment Management Ltd 1999:1-5; Casey 2002). Therefore, contrary to the sentiments expressed by the opponents of expensing ESOs, the non-recognition of ESOs

has had severe economic consequences and, instead of ensuring that employees are more motivated, it has misrepresented the financial results of companies and caused billions of dollars to be lost by investors due to plummeting share prices after the share market bubble burst.

The above assertions are supported by research regarding the effects that not expensing of ESOs have had on reported earnings. Most of the research mentioned below is based on valuing ESOs using the Black-Scholes option pricing model. Nedcor Limited, one of the largest South African banks, would have reported a more modest R1,22 billion in pre-tax profits (versus its reported profits of R1,68) if it had been forced to deduct the cost of its ESOs during 2002. Likewise, Investec plc, another South African bank, would have seen a drop in post-tax profits of 40% if it had expensed its ESOs in 2002 (Carthy 2004:12). In fact, Border (2002) and Vaknin (2002) cite the (United States) Federal Reserve Board as estimating the effect of not expensing ESOs as having caused average earnings growth in the United States to be inflated by three per cent. Bodie *et al.* (2003:64) emphasise that if AOL Time Warner had reported ESOs as an expense in its income statement in 2001, it would have disclosed an operating loss of \$1,7 billion, rather than the \$700 million operating income it actually reported. Thompson (2002) cites an analysis by *USA Today* of the 50 largest United States companies in Standard & Poor's top 500 which found that earnings for these companies in 2001 would have dropped by 10% if they had accounted for ESOs as an expense. This research demonstrates the misrepresentation caused by not expensing ESOs. This is perhaps the real reason why United States companies have been so vociferous against the expensing of ESOs in their financial statements. They are quite content with the *status quo* and do not want accounting standards to interfere with their "free lunch". Arguments that the expensing of ESOs will destroy the motivational effects of ESO instruments are merely a front – companies want to retain the accounting loophole and exploit it as much as possible.

5.4 *Expensing ESOs will destroy ESOs as a compensation tool*

The opponents of expensing ESOs agree that over the past few years there have been abuses in the utilisation of ESOs. However, they feel that one should rather target the abuses than the instrument itself (Malkiel and Baumol 2002:A18). Several authors (Merritt and Borders 2000; Ciccotello and Grant 1995:77; EESOC 2003:2) have concluded that expensing ESOs would affect ESOs directly, resulting in a reduction in their use. In two articles that strongly oppose the expensing of ESOs strongly, Moreland (2002) and Livingston (2002) declare that the regulators should treat the malady rather than the symptoms of ESOs abuses. They claim that ESOs themselves were not the root cause of the corruption scandals at Enron and WorldCom, and that ESOs in themselves are not innately dangerous tools. Instead, they note that the cause of ESO abuses was a lack of corporate governance due to indiscriminate grants by boards of directors.

They suggest that it is boards of directors that need to be reformed in terms of corporate governance and there should be no indictment against ESOs as part of an employee's compensation package. They conclude that the ESO debate should be focused on corporate governance and not on accounting, and that appropriate legislation regulating the use of ESOs should be passed (Moreland 2002; Livingston 2002; Derieux 1994:41). Livingston (2002) perhaps summarises the argument best when he says that "the problem [of abuses of ESOs] should be solved through stronger governance provisions, not the accounting model used as a Trojan horse".

The IASB has refuted the above argument by stating that if an accounting statement favours a certain transaction simply because it is not recorded in the financial statements, this may result in enterprises' favouring this type of transaction not necessarily because it is economically sound, but rather because it offers the most favourable accounting treatment. Although in the short run such a favourable accounting treatment may cause artificial growth in the relevant economic transaction, in the long run, it will lead to economic distortion. The reason for this distortion is that, because the accounting numbers are inaccurate, investors are under an illusion as to the true value of the relevant transaction. This impairs the quality of financial reporting, which eventually harms investors, capital markets and the economy (IASB 2000:para.3.25). As has been demonstrated in Section 5.3, the non-expensing of ESOs did indeed cause an upsurge in the number of ESOs being granted yet this resulted in inflated earnings and artificial growth (reflected in over-valued share prices during the 1995 to 2000 share market bubble), with harmful economic repercussions.

The FASB has stated that accounting in itself must never affect economic decisions, as accounting must present the economic consequences of transactions faithfully. Economic decisions must be based on a cost versus benefit payoff. Hence any potential decline in the use of ESOs due to the expensing thereof would not occur as a result of accounting, but rather as a result of users' perceiving the cost of ESOs to be higher than the cost of normal wages (FASB 1995:para.84). However, by not expensing ESOs, users are merely deluding themselves about economic realities. In fact, Mary E. Barth, a renowned writer on the subject of ESOs, noted in 1994 that changing financial reporting standards to recognise ESOs in the financial statements does not and cannot change the economics the ESO transaction. It only means that these transactions are now reflected in the financial statements (*Harvard Business Review* 1994:34). Casey (2002) quotes Professor Brian Hall of the Harvard Business School as stating that retaining the accounting exemption of not expensing ESOs is an "externality" which creates market inefficiency in that it distorts the attractiveness of options over other forms of compensation, even though these may offer more powerful performance incentives.

However, when companies *are* required to expense ESOs, the true nature of their costs is revealed. This facilitates comparability and allows such companies to compete on an equal footing with companies that use other compensation

tools such as cash bonuses and other non-share-based payments to remunerate their employees (Bodie *et al.* 2003:64). Similarly, Towers Perrin (2002:4) suggest that, where ESOs continue to provide incentives relative to their cost, they will continue to be utilised as incentive tools. However, where the incentive benefits from ESOs are weak compared to their cost, companies will tend to use other incentives such as cash bonuses or share allocations (Towers Perrin 2002:4). The expensing of ESOs should thus not cause companies to abandon the use of ESOs *per se*. Instead, because the cost of ESOs is now reflected in the financial statements, companies will structure ESO plans more efficiently and grant them sparingly so as to incur the least cost. Contrary to the arguments of the opponents of expensing ESOs, this would improve corporate performance and reduce ESO abuses.

Both the IASB and the FASB have noted that the role of accounting is to report transactions in a neutral manner and never to give a favourable or biased accounting treatment to any particular transaction so as to encourage entities to enter into those transactions. If accounting did so, the profits of enterprises that follow a favourable accounting treatment would be inflated and comparability between enterprises would be impaired, as companies who did not pursue the favourable accounting treatments would be disadvantaged (IASB 2004: para.BC60; FASB 1995:paras.84&97). Consequently, to achieve comparability between companies compensating their employees with ESOs and companies compensating their employees with other incentive payments, ESOs must be expensed.

Finally, Greenspan (2002) argues against the view that expensing ESOs will make raising capital more difficult. He reasons that not all new capital projects need to be financed. If capital projects are financed due to inaccurately reported earnings, this results in a misallocation of capital, causing destruction of wealth, as is evident from the United States share market bubble of 1995 to 2000. Therefore, he holds that when ESOs are expensed, investors are more informed about the true input costs of generating corporate revenues, allowing them to allocate capital efficiently and make correct economic investment decisions. He concludes that "capital employed on the basis of misinformation is likely to be capital misused" (Greenspan 2002).

6 Summary and conclusions

This paper has shown that ESOs should be recognised as an expense in an entity's financial statements. The reason for this is that the ESO transaction meets the definition of an "expense" and the recognition criteria in terms of the IASB Framework. The paper demonstrates that the payment of an employee for his services with ESOs meets the definition of an expense in terms of the IASB Framework. This is due to the fact that after an employee has been compensated with ESOs, there is a consumption or depletion of the newly acquired service assets, resulting in a "decrease in economic benefits in the form of depletions of the entity's assets". The ESO transaction also meets the recognition criteria,

since payment for an employee's services results in future economic benefits to be used by the entity and the amount thereof can be measured reliably. Although the measurement of ESOs is subject to potential inaccuracy, such estimates are sufficiently reliable for the purposes of recognition in financial statements.

The paper has explored other arguments presented in the academic literature on the subject of recognising ESOs as an expense. The opponents of expensing ESOs argue that the cost of ESOs is already disclosed in the diluted earnings per share figures and that any attempt to attribute value to an ESO would be subjective. They feel that a disclosure-only model would be as informative to users as a recognition model, since investors can extrapolate all the information they need from disclosure rather than from actual recognition. They contend that the need to expense ESOs would cause companies to stop using ESOs as compensation tools, which would hurt young and growing businesses.

The proponents of expensing ESOs refute the above arguments. They maintain that diluted earnings per share does not account adequately for the ESO transaction. They show that a disclosure-only model for ESOs is insufficient to account for ESOs, since disclosure of items is no substitute for recognising an element in the financial statements. In addition, they contend that by not expensing ESOs, corporate earnings are inflated, which misleads investors as to the true economic profit and input costs of the entity. They also demonstrate that any decline in the use of ESOs resulting from the expensing of ESOs would not be due to investors' rejecting ESOs as a compensation tool *per se*. Instead, it would be due to their choosing an appropriate compensation tool, one which accrues the least cost in the financial statements and provides the greatest benefits. Thus, any accounting distortion caused by not expensing ESOs would be removed, which would allow ESOs to be chosen based solely on their economic fundamentals. This would curb the number of ESOs being granted and cause ESO plans to be structured efficiently.

It is concluded that ESOs must be reflected as an expense in corporate accounts. The true economic nature of the ESO transaction is that the entity is compensating an employee for his services with a type of call option instrument known as an ESO. Because the entity is compensating its employee with a valuable financial instrument, the cost thereof must be recognised in the financial statements since the transaction meets the definition of an "expense". There should be no distinction between an employee who is compensated with cash and an employee who is compensated with any other type of financial instrument (such as an ESO), since the economic nature of such forms of compensation is very similar.

Bibliography

Aboody, D., Barth, M.E. and Kasznik, R. 2001. *SFAS 123 Stock-based compensation expense and equity market values*, Unpublished research paper, Stanford

- University Graduate School of Business, July 2001, [On-line], Accessed 2 April 2003, Available: <http://gobi.stanford.edu/ResearchPapers/Library/RP1694.pdf>
- Berle, A.A. and Means, G.C. 1932. *The modern corporation and private property*, July 1932, The Macmillan Company, New York.
- Berton, L. 1992. *Business chiefs try to derail proposal on stock options*, 5 February 1992, Wall Street Journal, p.A2.
- Bodie, Z., Kaplan, R.S. and Merton, R.C. 2003. *For the last time: Stock options are an expense*, Harvard Business Review, March 2003, Vol. 81, No. 2, pp.62-71.
- Border, D. 2002. *Enron highlights stock option tricks to have it all*, Staugustine.com, 21 April 2002, [On-line], Accessed 30 March 2003, Available: http://www.staugustine.com/stories/042102/opi_657210.shtml
- Botosan, C.A. and Plumlee, M.A. 2001. *Stock option expense: The sword of Damocles revealed*, Accounting Horizons, December 2001, Vol. 15, No. 4, pp.311-327.
- Brown, V. and Katsanis, M. 2002. *Stock options presentation to ASWA*, Chaffe & Associates Inc., 28 August 2002, [On-line], Accessed 21 April 2003, Available: <http://www.chaffe-associates.com/pdf/Stock%20Options%208-02.pdf>.
- Campbell, E.D. 1961. *Stock options should be valued*, Harvard Business Review, July/August 1961, Vol. 39, No. 4, pp.52-58.
- Carpenter, J.N. 1998. *The exercise and valuation of executive stock options*, Journal of Financial Economics, 1 May 1998, Vol. 48, No. 2, pp.127-158.
- Carthy, G. 2004. *Share options – Closing the loophole*, Accountancy SA, May 2004, pp.12-13.
- Casey, M. 2002. *Stock options didn't work; what will?* Wall Street Journal, 26 August 2002, [On-line], Accessed 7 April 2003, Available: http://www.wsjclassroomedition.com/wsjtoday/archive/02aug/COVR_options.htm
- Cavallo, C. 2002. *Accounting for employee shares and options sparks international controversy*, Allens Arthur Robinson, July 2002, [On-line], Accessed 16 April 2003, Available: <http://www.aar.com.au/pubs/pdf/cm/focmjul02.pdf>
- Ciccotello, C.S. and Grant, C.T. 1995. *Employee stock option accounting changes*, January 1995, Journal of Accountancy, Vol. 179, No. 1, pp.72-77.
- Cuny, C.J. and Jorion, P. 1995. *Valuing executive stock options with endogenous departure*, Journal of Accounting and Economics, September 1995, Vol. 20, No. 2, pp.193-205.
- Daniel, K. and Titman, S. 1999. *Market efficiency in an irrational world*, Financial Analysts Journal, November/December 1999, Vol. 55, No. 6, pp.28-40.
- Dechow, P.M., Hutton, A. P. and Sloan, R.G. 1996. *Economic consequences of accounting for stock-based compensation*, Journal of Accounting Research, 1996 Supplement, Vol. 34, No. 3, pp.1-20.

- Derieux, S.A. 1994. *Stock compensation revisited*, Journal of Accountancy, February 1994, Vol. 177, No. 2, pp.39-41.
- Economist. 2002. *Coming clean on stock options*, 25 April 2002, [On-line], Accessed 30 March 2003, Available: http://www.economist.com/printedition/displaystory.cfm?story_id=1099021
- Espahbodi, H., Espahbodi, P., Rezaee, Z. and Tehranian, H. 2002. *Stock price reaction and value relevance of recognition versus disclosure: The case of stock-based compensation*, Journal of Accounting and Economics, August 2002, Vol. 33, No. 3, pp.343-373.
- European Employee Stock Options Coalition (EESOC). 2003. *Comment letter 116 on Exposure Draft 2 (ED 2) – Share-based payment*, 7 March 2003, [On-line], Accessed 21 May 2003, Available: <http://www.iasb.org.uk/docs/ed02/ed2-cl116.pdf>
- Fama, E.F. 1970. *Efficient capital markets: A review of theory and empirical work*, Journal of Finance, May 1970, Vol. 25, No. 2, pp.383-417.
- Fama, E.F., Fisher, L., Jensen, M.C. and Roll, R. 1969. *The adjustment of stock prices to new information*, International Economic Review, February 1969, Vol. 10, No. 1, pp.1-21.
- Financial Accounting Standards Board (FASB). 1984. *Statement of Financial Accounting Concepts No. 5 (SFAC 5) – Recognition and measurement in financial statements of business enterprises*, Issued December 1984, Connecticut: FASB, Norwalk.
- Financial Accounting Standards Board (FASB). 1985. *Statement of Financial Accounting Concepts No. 6 (SFAC 6) – Elements of financial statements*, Issued December 1985, Connecticut: FASB, Norwalk.
- Financial Accounting Standards Board (FASB). 1993. *FASB Exposure Draft No. E-124 (ED E-124) – Proposed Statement of Financial Accounting Standards: Accounting for stock-based compensation*, Issued 30 June 1993, Connecticut: FASB, Norwalk.
- Financial Accounting Standards Board (FASB). 1995. *Statement No. 123 (SFAS 123) – Accounting for Stock-Based Compensation*, Issued October 1995 and revised December 2002, Connecticut: FASB, Norwalk.
- Financial Accounting Standards Board (FASB). 2001. *Statement No. 142 (SFAS 142) – Goodwill and Other Intangible Assets*, Issued June 2001, Connecticut: FASB, Norwalk.
- Findlay, M.C. and Williams, E.E. 2001. *A fresh look at the efficient market hypothesis: How the intellectual history of finance encouraged a real “fraud-on-the-market”*, Journal of Post Keynesian Economics, Winter 2000-2001, Vol. 23, No. 2, pp.181-199.
- Frazier Research and Analytics (FRA) Investment Education Series. 2002. *The expensing of employee stock options*, 16 July 2002, [On-line], Accessed 30 March 2003, Available:

- http://www.frazierresearch.com/FRA%20Educational%20Series/expensing_of_employee_stock_options.htm
- Frederick W. Cook and Co., Inc. 2002. *Forces to overthrow stock option accounting gain strength*, 4 March 2002, [On-line], Accessed 30 March 2003, Available:
http://www.fwcook.com/alert_letters/7-30-02UpdateSOActingDebate.pdf
- Greenspan, A. 2002. *Stock options and related matters: Speech by Chairman Alan Greenspan*, The Federal Reserve Board, 3 May 2002, [On-line], Accessed 13 June 2003, Available:
<http://www.federalreserve.gov/boarddocs/speeches/2002/20020503>.
- Hall, B.J. and Murphy, K.J. 2002. *Stock options for undiversified executives*, Journal of Accounting and Economics, February 2002, Vol. 33, No. 1, pp.3-42.
- Harvard Business Review*. 1994. *Taking account of stock options*, Harvard Business Review, January/February 1994, Vol. 72, No. 1, pp.27-36.
- International Accounting Standards Board (IASB). 2004. *Basis for conclusions on IFRS 2 Share-based payment*, Issued February 2004, IASB, London.
- International Accounting Standards Committee (IASC). 1989. *IASB Framework – Framework for the preparation and presentation of financial statements*, Issued July 1989, IASC, London.
- International Accounting Standards Committee (IASC). 1993. *IAS 8 – Accounting Policies, Changes in Accounting Estimates and Errors*, Issued 1993 and revised December 2003, IASC, London.
- International Accounting Standards Committee (IASC). 1997. *IAS 33 – Earnings per share*, Issued February 1997 and revised December 2003, IASC London.
- International Accounting Standards Committee (IASC). 1998a. *IAS 19 – Employee benefits*, Issued February 1998 and revised May 2002, IASC, London.
- International Accounting Standards Committee (IASC). 1998b. *IAS 38 – Intangible Assets*, Issued July 1998 and revised March 2004, IASC, London.
- International Accounting Standards Committee (IASC). 2000. *G4+1 Position Paper – Accounting for share-based payment*, Issued July 2000, [On-line], Accessed 1 April 2003, Available:
<http://www.iasb.org.uk/docs/g4sp00/g4sp00.pdf>.
- International Employee Stock Options Coalition (IESOC). 2002. *Coalition praises FASB's call for quarterly disclosure of employee stock options*, 7 October 2002, [On-line], Accessed 21 May 2003, Available:
<http://www.fei.org/advocacy/download/FASBQuote.pdf#xml=http://fei.org.master.com/teaxis/master/search/mysite.txt?q=Expensing+stock+options&order=r&id=28494200c540250&cmd=xml>
- Livingston, P. 2002. *Employees caught in the middle of stock option debate*, Financial Executives International: The world of corporate finance, 2 May 2002, [On-line], Accessed 21 May 2003, Available:

- http://www.fei.org/news/PL_stock_options.cfm
- Malkiel, B.G. and Baumol, W.J. 2002. *Stock options keep the economy afloat*, Wall Street Journal, 4 April 2002, Vol. 239, No. 66, Dow Jones and Company New York, p.A18.
- Maller, R.A., Tan, R. and Van de Vyver, M. 2002. *How might companies value ESOs?*, Australian Accounting Review, 2002, Vol. 12, No. 1, pp.11-24.
- Manitou Investment Management Ltd. 1999. *The amazing stock option bubble*, October 1999, [On-line], Accessed 16 June 2003, Available: <http://www.equassist.com/stockoptionbubblesep99.pdf>
- Maxim Integrated Products Inc. 2002. *Maxim's views on accounting for employee stock options – August 2002*, 12 August 2002, [On-line], Accessed 21 April 2003, Available: <http://pdfserv.maxim-ic.com/arpdf/optionsacctg.pdf>
- McGraw, J. 2002. *Market leery of stock options accounting*, Memphis Business Journal, 12 July 2002, [On-line], Accessed: 30 March 2003, Available: <http://dayton.bizjournals.com/memphis/stories/2002/07/15/focus4.html>
- Merritt, R.S. and Borders, B.T. 2000. *Comment Letter 10 on G4+1 Discussion paper on accounting for share-based payment*, Association of Publicly Traded Companies (APTC), 31 October 2000, [On-line], Accessed: 13 June 2003, Available: http://www.iasb.org.uk/docs/g4sp00/sp_cl10.pdf
- Michel, N.J. and Garwood, P. 2002. *Expensing employee stock options: Lifting the fog*, The Heritage Center for Data Analysis, 21 October 2002, [On-line], Accessed 9 June 2003, Available: <http://www.heritage.org/Research/Regulation/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=31020>
- Moreland, J. 2002. *Fully deluded when it comes to expensing incentive options*, Financial Executives International (FEI): The world of corporate finance, 16 December 2002, [On-line], Accessed 21 May 2003, Available: <http://www.fei.org/news/moreland.cfm>
- Morgenson, G. 1998. *Stock options are not a free lunch*, Forbes, 18 May 1998, Vol. 161, No. 10, pp.212-217.
- Rouse, R.W. and Barton, D.N. 1993. *Stock compensation accounting*, Journal of Accountancy, June 1993, Vol. 175, No. 6, pp.67-70.
- Sacho, Z.Y. 2003. *Accounting for employee share options: A critical analysis*, MCompt dissertation, University of South Africa, Pretoria.
- Schilder, A. 2002. *Accounting standards, transparency and supervision*, De Nederlandsche Bank NV, 6 November 2002, [On-line], Accessed 13 May 2003, Available: http://www.dnb.nl/english/e_speeches/2002/e_sc021106.htm
- Stiglitz, J. 2002. *Accounting for options*, Wall Street Journal, 3 May 2002, [On-line], Accessed 7 April 2003, Available: http://www.wsjclassroomedition.com/wsجتoday/archive/02may/COVR_options3.htm
- Thompson, D.H. 2002. *Stock option accounting an expense?*, CPAmerica International, 28 May 2002, [On-line], Accessed 1 April 2003, Available: <http://www.afai.com/profession/justthink/2002-05-28c.asp>

Towers Perrin. 2002. *The future of stock option accounting in the U.S.*, May 2002, [On-line], Accessed 1 April 2003, Available:
http://www.towers.com/towers_publications/publications/monitor_update/mup0205.htm

Tyson, L.D. 2002. *Don't throw out options because investors took a bath*, 29 April 2002, Business Week – European Edition, No. 3764-1094, p.14.

Vaknin, S. 2002. *Employee benefits and ownership*, Buzzle.com, 25 October 2002, [On-line], Accessed 4 May 2003, Available:
<http://www.buzzle.com/editorials/text10-23-2002-28734.asp>

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