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ACCOUNTING FOR STOCK-BASED COMPENSATION PLANS

THEORY AND PRACTISE IN THE BUSINESS COMMUNITY

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Abstract

Stock-based compensation plans are now a common feature of employee remuneration, not just for directors and senior executives, but for many other employees as well. However, regardless of the increasing use of stock-based payment, there is no existing International Financial Reporting Standard (IFRS) on how to account for these transactions. Concerns have been raised about this lack of an international standard.

Financial Accounting Standards Board (FASB) in the United States and International Accounting Standards Board (IASB) have recently been working on this topic. To date, all have agreed that all stock-based payment transactions should be recognised in the financial statements, resulting in an expense in the income statement.

Already, in 1993, the FASB attempted to put into place an accounting standard that would require companies to treat stock options as an operating expense and incorporate them into their income statements. This proposed statement was strongly opposed by companies.

There are several questions which can be asked about stock-based compensation, namely:

> Should companies expense stock options?
> How should stock options be valued?
> Is granting an option a once-only expense for companies or is it a contingent liability, the potential cost of which changes with fluctuations in market price of companies' shares and the final cost of which becomes clear when options are exercised or expire?

The standard-setting bodies, IASB and FASB in this thesis, and the companies have different answers with regard to these questions. We will examine what issues bring up the most controversy and what are the more accepted answers when it comes to implementing the accounting for stock options in practice. We review the stock option pricing models available to date and distinguish their drawbacks when they are applied to value employee stock option plans. We selected thirty two Comment Letters from the vast number of those submitted by various companies with regard to proposed standards and we looked into accounting practices of these companies in order to see which alternatives of accounting for stock-based compensation expense these companies have chosen.

Key-words: share-based compensation expense, stock-based compensation expense, stock option plan, IASB, FASB, option pricing model, intrinsic value, fair value, Comment Letters.

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Preface

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Göteborg, 2003-02-17

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1 Introduction

In this chapter we present the subject of our thesis. We discuss the problem and the purpose of the thesis. We also state the delimitations and present the thesis outline for the reader to see the structure and follow the main thread of the thesis.

1.1 Background

Companies often issue share options to employees or other parties. Stock-based compensation plans[1] are now a common feature of employee remuneration, not just for directors and senior executives, but for many other employees as well. Some companies issue shares or share options to pay suppliers, such as suppliers of professional services. Regardless of the increasing use of stock-based payment, there is no existing International Financial Reporting Standard (IFRS) on how to account for these transactions. Concerns have been raised about this lack of an international standard. For example, the International Organization of Securities Commission's (IOSCO) assessment of international standards stated that the International Accounting Standards Committee (IASC) (predecessor body of International Accounting Standards Board (IASB)) should consider the accounting treatment of stock-based payment (www.iosco.org).

Few countries have standards on the topic. This is of particular concern in Europe, where the use of stock-based payment has increased significantly in recent years and continues to spread, and yet little accounting guidance exists. Financial Accounting Standards Board (FASB) in the U.S. and IASB have recently been working on this topic. To date, all have agreed that all stock-based payment transactions should be recognised in the financial statements, resulting in an expense in the income statement when the goods or services are consumed (www.iasc.org.uk).

In 1993, FASB attempted to put into place an accounting standard that would require companies to treat stock options as an operating expense and incorporate them into their income statements. This proposed statement was strongly opposed by companies (www.fei.org/advocacy/download/StockOptionAccounting-OnePager.pdf). After a long discussion an accounting standard, Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation," (SFAS 123) was issued by FASB in 1995.

[1] IASB and FASB apply different terms to describe the same transactions with regard to stock options: IASB uses the term "share-based payment," while FASB uses the "stock-based compensation" term. We will be generally using the term "stock-based compensation" unless referring specifically to the IASB Discussion Paper and Exposure Draft.

The standard requires recognition of stock-based payment transactions with parties other than employees, based on the fair value of shares or options issued. Companies are also encouraged, but not required, to apply the same accounting method to stock-based payment to employees. If that method is not applied, the standard requires disclosures of pro forma net income and earnings per share, as if the method had been applied (www.fasb.org). However, FASB is still dealing with the issue of stock-based compensation. At the end of the year 2002, FASB issued SFAS No. 148 "Accounting for Stock-Based Compensation - Transition and Disclosure," (SFAS 148) and Invitation to Comment “Accounting for Stock-Based Compensation: A Comparison of FASB Statement No.123, Accounting for Stock-Based Compensation and Its Related Interpretations, and IASB Proposed IFRS Share-Based Payment,” continuing to search for the most appropriate way to account for stock-based compensation plans.

IASB issued the Exposure Draft ED 2 "Share-Based Payment" on November 7, 2002. IASB has invited comments on the proposals in the ED 2 by March 7, 2003. IASB will consider the comments received on the Exposure Draft when finalizing the IFRS, which it plans to do by the end of 2003. Assuming that this is achieved, IASB proposes that the IFRS will be effective for periods beginning on or after 1 January 2004.

As we can see from the discussion above, the two standard-setting bodies are working on the subject of standards governing accounting for stock option plans. However, even with introduction of standards, the issue of stock options raises a number of problems, which will be discussed in the following section.

1.2 Problem

Initially, stock options appeared as an incentive for companies’ management, enabling it to enhance the companies’ performance. However, once praised for their incentive power, options are now blamed for stimulating management to commit all kinds of actions to raise companies’ share prices and keep their option packages “in the money”.[2] As it is now generally agreed, management was assisted by accounting practices, which did not require the cost of stock options be treated as compensation and be deducted from company’s profits (The Economist, November 2002, Vol. 365, Issue 8298).

[2] (An option is in the money, when it is more profitable for its holder to exercise the option than to make transactions directly in the underlying asset. Otherwise the option is out of the money. The option can also be at the money when the current market price of the underlying asset is equal to the striking price) (Huefner, et al., 2001).

The first rules governing accounting for stock options appeared in 1972, in the United States, when Accounting Principles Board (APB) issued Opinion No.25 (APB 25) "Accounting for Stock Issued to Employees." According to APB 25, options were measured at their intrinsic value, which was determined at the grant date. But at a grant date the market price and exercise price are normally the same. Hence, the value of the stock options was then usually zero. Therefore companies recorded no expense. They only had to show stock option expense (as calculated under an option pricing model) in footnotes to their financial statements (www.orgs.comm.virginia.edu/mii/education/Fundamentals).

However, the economic dispute over the issue of accounting for stock option plans is still ongoing. One of the issues raised is: Should stock options be expensed? The standard-setting bodies, namely FASB and IASB, as well as many economists, analysts and investors, came to the uniform conclusion of expensing stock options, i.e. deducting their costs from a company's profits. In practice, however, companies tend to object to such treatment of stock options. They claim that stock options are not really an expense since they are not transferring actual cash. FASB argument is that stock option plans are a form of compensation, as there is value being transferred, even if it is not cash (www.nytimes.com/reuters/business/business-column-nettr). Despite FASB's view that expensing stock options would improve the financial reporting, it did not drastically change the rules when it issued SFAS 123. While under SFAS 123 it is preferable to expense stock options, using a fair-value based method, companies have a choice of not doing so (Dakdduk, 1996).

Another issue raised with regard to stock options is: How are options valued and when are they expensed? Economists mostly agree that stock options should be expensed using a fair-value method, which reflects what the options would cost to buy in the market if they were available. Two other methods, such as the intrinsic value and the minimum value method, are ruled out by both economists and IASB. FASB is also inclined to applying a fair-value method (The Economist, November 2002, Vol. 365, Issue 8298). However, FASB provides companies with the option of how to measure stock option plans. FASB believes that having multiple choices will actually encourage companies to expense them (www.online.wsj.com/article_print). The issue of when to expense options raised additional disagreements. IASB wants the expense to be recognised at a date when an option is awarded to employees, i.e. grant date. But some economists believe options should be expensed when they are exercised, i.e. when the options holder trades it for the underlying shares. Under this approach, options would still be expensed at a grant date, but subsequently the estimated value would be adjusted to take into account the changes in value. Upon exercise of the option, the company would have to take

any gain or loss in order to match the option's actual value when exercised. It would diminish the incentive to manipulate option values since any difference from the option's final true value results in additional charges to a company (The Economist, November 2002, Vol. 365, Issue 8298).

The above discussion can be summarised into three major questions:

Should companies expense stock options?
How should stock options be valued?
Is granting an option a once-only expense for companies or is it a contingent liability, the potential cost of which changes with fluctuations in market price of companies' shares and the final cost of which becomes clear when options are exercised or expire?

The standard-setting bodies, IASB and FASB in this thesis, and the companies have different answers with regard to these questions. We will look deeper into what issues bring up the most controversy and what are the commonly provided answers when it comes to implementing the accounting for stock options in practice.

1.3 Research Issue

The question we are going to answer in our thesis is:

What is the opinion of the business community on the issue of expensing stock-based compensation plans and what arguments are presented pro/con?

1.4 Purpose

The purpose of this thesis consists of four parts:

Describe existing and proposed rules, namely:

- "Accounting for Stock-Based Compensation," Statement of Financial Accounting Standard No. 123;
- "Accounting for Stock-Based Compensation – Transition and Disclosure," Statement of Financial Accounting Standard No. 148;
- "Share-Based Payment," Exposure Draft International Financial Reporting Standard;

- Invitation to Comment "Accounting for Stock-Based Compensation: A Comparison of FASB Statement No.123, Accounting for Stock-Based Compensation and Its Related Interpretations, and IASB Proposed IFRS Share-Based Payment."

Make comparisons of existing and proposed rules for accounting for stock options to how companies account for stock options in practice.

Make an analysis of a selected range of Comment Letters submitted by various companies in order to identify the main issues discussed by these companies and their views regarding the treatment of stock option plans in financial statements.

Present conclusions on the basis of the analysis.

1.5 Delimitations

Mainly due to the lack of time, some limitations of scope are set for this thesis. The main existing and proposed rules regarding accounting for stock options have been selected. However, one of the proposed rules is an Exposure Draft and one is an Invitation to Comment. The periods over which Comment Letters can be submitted on this Exposure Draft and Invitation to Comment are not over yet. Therefore the final version of the standards might differ from the proposed ones. However, we do not have enough time to wait until these proposed rules become standards and will have to draw some of our conclusions on the basis of the Exposure Draft.

As it was not feasible to study all submitted Comment Letters, we selected a number of Comment Letters submitted by companies with regard to the existing and proposed FASB rules. As far as IASB Exposure Draft "Share-based Payment" is concerned, we will analyse the Comment Letters submitted on the Discussion Paper, which preceded the Exposure Draft.

Only a limited number of Comment Letters will be analysed due to both, the high cost of purchasing all of the available Comment Letters and the limited time frame.

1.6 Thesis Outline

Chapter 2:

In this chapter we describe the research approach we used and the methods applied to collect and process the theoretical and empirical findings. Finally, we assess the quality of our research.

Chapter 3:

In this chapter we examine the concept of stock-based compensation, its effect on company performance and the existing FASB and IASB rules and regulations governing employee stock-based compensation plans. Further, we discuss whether a stock-based compensation plan results in an expense to a company or not. This chapter also deals with the problems and difficulties of measuring the expense and recognising the timing of the expense.

Chapter 4:

This chapter covers the empirical evidence we collected in the course of our work. We review the Comment Letters submitted by various companies with regard to FASB and IASB issued standards and Exposure Draft concerning accounting for stock-based compensation plans. Further, we describe the ways in which a number of companies reflect the stock-based compensation expense in their financial statements.

Chapter 5:

In chapter 5 we analyse the results of the study and present our reflections.

Chapter 6:

Chapter 6 contains the conclusions of our study and the conclusion to our research question. In this chapter we also give suggestions for further possible research.

2 Methodology

In this chapter various methodological approaches that can be used when conducting research activities are discussed. We also explain which methods we have chosen and why.

2.1 Research Approach

The choice of research approach depends on the degree of precision by which the original research question can be formulated, and how much knowledge exists in the area of the chosen subject. Patel & Davidsson (1994) state that research approaches can have three characteristics as explained below.

When information is insufficient, the study is *exploratory*. The main purpose with exploratory studies is to collect as much knowledge about a study problem area as possible. This means that the problem is analysed from a number of different points of view. A wealth of ideas and creativity are important elements in explorative studies because these often aim at attaining knowledge that can lay the foundation for further studies (Patel & Davidson, 1994).

The *descriptive* approach is best suited to investigations where there already is knowledge. In a descriptive study, only the essential aspects of the phenomenon are looked upon. The descriptions of these aspects are detailed and fundamental (Patel & Davidson, 1994).

The *hypothesis testing* approach is used where information is extensive enough to form new theories. The researcher collects and makes hypotheses that will be tested in the empirical world and which will result in either acceptance or rejection (Patel & Davidson, 1994).

In our thesis we used both exploratory and descriptive approaches. We collected as much data as possible about the study object, using various sources of information. Namely, we read a number of articles and other sources related to stock-based compensation plans and accounting for them. Moreover, we analyzed selected Comment Letters, which present the opinion of the business community on the subject of accounting for stock-based compensation. This data collection provided us with an extensive background on a variety of views on the subject of our research. The descriptive approach is used in our study of the existing and proposed rules regarding the accounting for stock option plans and for how the companies account for stock-based compensation plans in their financial statements.

2.2 Research Perspective

There are two major perspectives that can be applied to scientific research, namely the positivistic approach and the hermeneutic approach (Patel & Davidson, 1994).

The *positivistic approach* is based on experiments, quantitative measurements and logical reasoning. It is based on scientific rationality. It should be possible to empirically test the knowledge in order for it to be meaningful. Measurements shall replace judgments and estimations; explanations shall come from a cause-effect relation. The positivistic approach is based to a large extent on measurement of, and logical reasoning about, reality (Patel & Davidsson, 1994).

In the *hermeneutic approach,* the researcher approaches the study object from his/her own understanding. The researcher uses his/her own knowledge, thoughts, impressions and feelings in order to understand the study object. These attributes are an asset for the researcher and not an obstacle. Under the hermeneutic approach, the researcher tries to see the whole picture in a research problem. Hermeneutics is about interpreting the meaning in texts, symbols and experiences. As opposed to positivism, it is more qualitative and is based on interpreting reality through people's thoughts, motives and goals (Patel & Davidsson, 1994).

In our thesis, we are more biased towards the hermeneutic approach. We conducted research that was based on our interpretations of the phenomenon we are studying. We studied the rules of IASB and FASB relating to stock option plans. Further we looked into whether companies expense stock options or not in their financial statements. The study of Comment Letters gave us an overview of companies' viewpoint on the treatment of stock option plans.

2.3 Research Design

There are the three main ways to form a theory which are: inductive, deductive and abduction. Empirical research uses induction. The inductive approach is a formulation of general theories from specific observations, as opposed to the deductive approach, which is the derivation of a new logical truth from existing facts (Melville & Goddard, 1996). The *deductive* approach can be described as when a theory concerning the chosen subject exists and a hypothesis is formed from this former theory. The research examines whether the existing theories are combined with reality by making comparisons to these existing theories (Kam, 1990). In the *inductive* approach the research follows earlier

explorations. The researcher is primarily conducting observations of the reality. From this, a conclusion is drawn, and a theory is formulated.

In the *abduction* approach the researcher uses a combination of both, the inductive and the deductive approaches, and from this creates an analysis of the empirical findings, together with previous theories (Alvesson & Sköldberg, 1994).

In our opinion, our thesis is a combination of both the deductive and the inductive approaches. Having our own fundamental knowledge about the phenomenon, we started by gathering information and trying to condense it into a brief summary format. Further, we established a link between the objectives of our research and the findings we derived from the collected data. On the other hand, we can say we tested the existing theory as we tried to look into the ongoing movement toward accounting treatment for stock options.

2.4 Research Method

Research can be conducted using quantitative or qualitative methods or a combination of both. The most important difference between these methods is that the *quantitative* method reverses the information received into numbers and from these results, a statistical analysis is performed (Holme & Solvang, 1997).

The *qualitative* method penetrates every observation in a deeper way, focusing on variables that are harder to classify and quantify. The main purpose of qualitative research is to obtain a more profound knowledge than the fragmented information generated by quantitative methods. In a qualitative approach it is the researcher's understanding or interpretation of the information that is vital. Qualitative data is often suited for research projects that aim to understand or find a specific pattern within the investigated area (Holme & Solvang, 1997).

Our study applies the qualitative method as we aim to obtain a deeper understanding of the study object and do not try to prove the credibility of our conclusions using quantitative methods or statistical tools. The data that are gathered, analyzed and interpreted cannot be meaningfully expressed in figures.

2.5 Data Collection

Collecting data for the research is of paramount importance to the relevance of the outcome of the problem solving. A distinction is made between two

different types of data, namely primary and secondary data. *Primary* data is information collected and used for the first time, usually through direct examination, whereas *secondary* data consists of information already available, i.e. it has been collected or produced by a third party and perhaps for a different purpose (Eriksson & Wiedersheim-Paul, 1999). Secondary data can be divided into two sub groups, internal and external. Internal secondary data are available within the company/organization and external secondary data are provided by sources outside the company/organization. Relevant research data can be obtained from a variety of sources. (Lekvall & Wahlbin, 1993)

Our study is based on secondary data. The material we read included books, articles, annual reports, Comment Letters and information provided on IASB, FASB and other websites.

As our study involves an analysis of Comment Letters, it is important for the reader to understand the IASB and FASB rule-making system (called Due Process) and the role the Comment Letters play in that process.

FASB and IASB systems of Due Process provide the opportunity for interested parties to express their views on the proposed accounting rules. The purpose of the Due Process is to carefully weigh the views of the constituents, so that the standards meet their needs. The first step in the Due Process is selecting the issue on the agenda. The second step is issuing a Discussion Memoranda/Paper. Further, an Exposure Draft is issued, which is followed by an accounting standard. All interested parties are allowed to express their opinion by submitting Comment Letters on Discussion Memoranda/Paper and Exposure Drafts (www.ici.org/fasb_streamline_com). Comment Letters are the primary means by which constituents can communicate with FASB and IASB on their proposals. They are the source of feedback on the conceptual soundness, technical accuracy and appropriateness of the proposed rules. In addition, comments from interested parties are particularly helpful in understanding whether the information provided in proposed rules is useful in fulfilling the needs of those who eventually use them (www.gasb.or/dueprocess-cl).

We made a selection of Comment Letters from different companies and organisations. There were more than 700 Comment Letters submitted on the Exposure Draft to SFAS 123 (www.fei.org/advocacy/download/StockOptions-whitepaper.pdf). Due to the high cost and shortage of time it was not possible to study all the letters; therefore we have chosen ten of them. The total number of Comment Letters submitted on SFAS 148 was 77. We selected Comment Letters of seven companies and two professional organizations for our study. IASB Discussion Paper (which preceded ED 2) received 311 responses (www.iasb.org.uk/cmt/001.asp). Since it was not feasible to examine all the

submitted letters, we have chosen ten Comment Letters. The total number of the Comment Letters on the Invitation to Comment is not known yet since the response period is still ongoing. The choice of companies was not totally random, but based on our intention to consider the opinions of companies transacting in major industries, namely in financial services and management, software, telecommunications, steel, petroleum, automotive and beverage. The selected companies are the leaders in their industries.

We chose ten companies, from those whose Comment Letters we reviewed, for specific investigation of how they account for stock-based compensation expense. We excluded associations of companies and professional organizations as they represent the views of a group of companies but do not use stock-based compensation expense themselves.

2.6 Quality of the Research

To be able to achieve a high level of credibility for the conclusions presented in this thesis, it is important to demonstrate that the research was designed and conducted in such a way that it accurately identifies and describes the phenomenon that was investigated. In order to do this, it is important to describe issues concerning the research project's validity and reliability (Ryan, et al., 1992).

Validity is one element of science research which deals with the issue of whether the research actually measures the things it aims to measure, and that nothing irrelevant affects the result. According to Lekvall and Wahlbin (1993), validity can be divided into constructive, internal and external validity. *Constructive* validity assesses whether there is a correct relationship between theories and empirical findings. *Internal* validity approximates the truth about a presumption regarding cause-effect or causal relationships. Thus, internal validity is only relevant in studies that try to establish a causal relationship. *External* validity considers whether the findings can be generalized and provides conclusions regarding other situations than the specific case studied.

Reliability considers the quality of measurement. It clarifies to what extent the findings can be replicated when using the same research method, i.e. if the measurement tool will generate the same or similar results if another researcher who follows the same procedure replicates it (Lekvall &Wahlbin, 1993).

To ensure the validity of our thesis we tried to use as many sources of information as possible and to link them to each other. We carefully studied the literature, articles and accounting standards available. We presented a thorough explanation of the rules governing the accounting for stock option plans and the

application in practice. Based on that information, we established the main issues which raise concerns of business enterprises regarding accounting for stock-based compensation expense.

It is difficult to evaluate the reliability of our study as we a used qualitative research method. However, we can say reliability of our study is supported by the examination of the underlying standards, Comment Letters that were available, and annual reports. Of course, the conclusions we make, in Chapter 6, are necessarily based on the limited number of companies under study. We have selected a broad-based group of companies, from different sectors of business community, in order to achieve a representative sample. Our conclusions are based only on this sample collection.

3 Theory

In this chapter the concept of stock-based compensation, its effect on company performance and the existing FASB and IASB rules and regulations governing employee stock-based compensation plans are discussed. We are highlighting the main points of the various rules, in some cases following closely the wording of the rules themselves. Furthermore, we discuss whether a stock-based compensation plan results in an expense to a company or not. This chapter also deals with the problems and difficulties in measuring the expense and recognising the timing of the expense.

3.1 The Concept of Stock-Based Compensation

Stock options are a right to purchase a specified number of shares of a company's stock at a specified price (called the exercise or strike price) for a specified period of time (called the option period, or life of the option). Companies typically grant fixed options, where the exercise price is fixed and the number of shares can be determined at the grant date. The exercise price usually is set equal to the market price of the underlying stock at the grant date, and typically remains fixed over the life of the option, although there are exceptions. Employee stock options often have a life of 5–10 years and a vesting period of several years before which the stock options cannot be exercised (Lynch & Perry, 2003). The vesting period is a “time frame over which the employee will become eligible to actually own the stock” (Sunkara, 2000).

Corporations use stock options as a method of long-term compensation. Options are more and more often granted to executives and other employees as an alternative to increases in base pay. Some of the reasons for using stock options are (Sesil, et al., 2000):

- Options make workers have the same interests as shareholders. Thus, executives will make decisions that benefit shareholders to a larger extent.
- Options provide an opportunity to reduce executives’ base pay. This balances the great differences between the salaries of executives and other employees.
- Options are also a tax-efficient way to pay employees.
- Options encourage job creation in knowledge-related industries.
- Options help corporations to cope with tight labour markets.

Over the last ten years a shift has been taking place from the exclusive dependence on a system of fixed wages and benefits to a greater role for equity

stakes in companies. While the shift originally began with the rapid growth of stock option grants to executives, companies also structure remuneration for broader groups of employees using stock options. While these may not accompany wage cuts, they may substitute for wage increases (www.nceo.org/library/optionreport.html).

Part of the reason for the rise in stock options in the last decade was the tight and tightening labour market and the explosion in high technology job creation and economic growth. Stocks have performed particularly well during that period and there was an explosion in the growth of technology companies, an Internet revolution, an Internet start-up boom, and huge run-ups in the stocks of many of these companies (Sesil, et al., 2000).

The shift toward stock option compensation originally began with the rapid spread and the rapid growth of stock option grants to executives. Then, it spread throughout the management and professional ranks of mainly high technology companies. Gradually, many companies applied portions of future remuneration for broader groups of employees to stock-based compensation. A 1998 survey of the top 250 corporations in the U.S. found that fifteen companies had set aside over 25% of their weighted average shares outstanding for equity incentives for upper management and employees. (Weeden, et al., 1998). This study found that the average percent of total shares outstanding allocated for compensation has increased from the 0.3%-0. 5% range in the 1960s to 2% on average in 1998.

3.2 Stock-Based Compensation Effect on Company Performance

There are a variety of theories to predict different effects of stock-based compensation on company performance. Agency theory predicts incentive conflicts arise because the interests of senior managers are not aligned with the interests of shareholders. In order to bring the interests of the two parties into closer alignment, owners incur cost in the form of incentive contracts (Jensen & Meckling, 1976).

Other theories suggest that stock options might lower the information costs in a company because managers' and employees' interests become more closely aligned. This recognises that employees have access to information that may be valuable to management. The presence of stock-based compensation plans may result in employees having the necessary incentive to communicate, or act on their superior information (www.nceo.org/library/optionreport.html).

Additionally, an argument from efficiency wage theory may apply to stock option plans: the theory says that due to the higher wage rate, employees who

work for firms which pay above the market rate may be less likely to quit and more likely to exert maximum effort. Thus, it is possible that high effort-exerting employees are attracted to companies that pay higher compensation as a result of broad-based stock options (www.nceo.org/library/optionreport.html).

Profit sharing theories would also tend to predict a positive connection between broad-based stock options and corporate performance (Kruse, 1993). Profit sharing theory is also relevant to stock-based compensation plans because of the empirical evidence indicating that lower level employees do essentially use such plans like cash profit sharing plans. Profit sharing theory thus suggests a more positive prediction. A number of microeconomic studies have found that profit sharing companies are more productive than firms without profit sharing although researchers have noted that it is hard to distinguish the effects of profit sharing from other human resource management practices. (Ichniowski, et al., 1997; Kruse, 1993; Weitzman & Kruse, 1990).

There are, however, opinions that stock-based compensations may actually hurt corporate performance. Commenting on the executive stock option research tradition, Kevin J. Murphy says that the academic evidence "directly linking current grants to future performance is, frankly, rather flimsy" (Murphy, 1998). One common objection to the positive spin put on stock options is the observation that a firm with a broader stock-based stock compensation plan may experience significant increases in its shareholder value over a certain time period. But if this company is compared to its entire industry group, the story that employees did well and shareholders did well, may be revealed to be a hoax if the company actually did worse than the rest of its industry group.

For those reasons, some companies have structured their stock option programs, as described below, so that they assure some type of above average performance (Sesil, et al., 2000):

> Some options have a premium price set higher than the market price of the common stock on the date the option is granted and include the possibility that no options will be earned;
> Some options will not vest until certain strict performance targets are met by the company;
> Some options index their exercise price to a market or industry group average to insure that profit from the options comes as a result of the company's performance rather than the performance of the market or the firm's industry group.

3.3 The Growth of Stock-Based Compensation

Stock options have become a standard part of both executive and non-executive compensation packages. A 1998 Towers Perrin study found that 78% of U.S. companies provide stock options (Orr, 1999). Interestingly, non-top-five-executive employees hold most stock options. A study of large firms over the 1994–1997 time period showed that 75% of stock options are granted to non-top-five employees (Core & Guay, 2001). Over a similar time period, a survey by ShareData found that, of companies with stock options plans and more than 5,000 employees, the percent that grant options to all employees increased from 10 to 45%. In addition, 74% of companies with less than $50 million in sales grant options to all their employees (Morgenson, 1998).

According to Corey Rosen, Executive Director of The National Center of Employee Ownership (NCEO), there is no reporting system that could provide a reliable data on how many employees get stock options. So the NCEO has constructed estimates based on a study by the Bureau of Labour Statistics and surveys by a number of large consulting firms, including Mercer Consulting; Hewitt Associates; academics Edward Lawler, Susan Mohrman, and Gerald Ledford; and Segal Sibson, all of which came to compatible conclusions (www.nceo.org). From these surveys, it was estimated in the year 2000 approximately 7 to 10 million employees held stock options. But because options are often not granted annually, especially in some very large companies with broad-based grants that does not mean that 7 to 10 million people get options granted to them every year. That number is probably in the range of three million per year.

It was estimated that the number of people receiving options in the United States grew dramatically in the 1990s; growth since 1999 probably has levelled off as the tech sector's growth has slowed. In 1992, only about one million people had options. Table 1 below shows estimated growth over time (these numbers represent the number of employees holding options, not the number of employees receiving options in a particular year):

Table 1: The Growth of Employee Holding Stock Options in the US. (www.nceo.org)

Year	Number of Employees Holding Stock Options
1992	1,000,000
1993	1,750,000
1994	2,350,000
1995	3,400,000

1996	4,000,000
1997	4,000,000 - 5,300,000
1998	5,700,000 - 8,400,000
1999-present	7,000,000 - 10,000,000

3.4 Stock-Based Compensation Plans – Expense or Not?

Current accounting practices allow companies to ignore the cost of stock-based compensation in their income statements. Companies are able to grant valuable option packages without affecting their earnings. In the opinion of many, not expensing the stock-based compensation plans leads to overstated earnings, which subsequently leads to higher share prices (Sahlman, 2002).

FASB considers the fair value method of accounting for stock-based compensation (which results in an income statement expense) as a preferable method and encourages companies to adopt it instead of the intrinsic value method (which typically results in no expense in the income statement) allowed by APB 25. However, only a small fraction of companies follow FASB's suggestion. Despite the fact that SFAS 123 was issued in 1995, which encourages but does not require expensing of stock options, the controversy over accounting methods for stock-based compensation is still ongoing. (See Section 3.6 for a summary of SFAS 123).

Some companies believe that the fair value method provides greater transparency of financial statements to investors. However, some financial analysts state that if compensation expense is recognised using the fair value method they will add the stock-based compensation expense back to net income since it is a non-cash expense, which does not affect their valuation analysis (Pippolo, 2002).

3.4.1 Arguments Supporting the Recognition of Expense

One of the arguments presented to support the fair value method of accounting for stock-based compensation plans is related to tax consequences for both the company and the recipient. When stock options are sold after satisfying the holding period rules, the difference between the received amount and the option price is taxed at a rate considerably lower than the ordinary income is taxed at (Shnider, 2002). However, the company gets a tax deduction at ordinary corporate tax rates for the difference between the option price and the current market value of the stock. Some of the U.S. Congress members proposed to require companies granting top executives stock options and taking tax

deductions, to charge stock-based compensation expense in their income statements as well. It is believed to be unfair to allow companies to claim options as tax deductions while not reporting them as an expense (Newell & Kreuze, 1997). U.S. Congressman, Pete Stark, in his Introduction of a bill to "End the Double Standard for Stock Options Act," calls options "…a corporate tax loophole that allows companies to hide stock option expenses from their Securities and Exchange Commission earnings reports, but allows those same companies to take the deduction on their Internal Revenue Service tax filings" (www.house.gov/stark/documents/107th/stockoptions).

According to Statement of Financial Accounting Concepts (SFAC) No. 6, "Elements of Financial Statements," expenses are defined as "outflows or other using up of assets or incurrence of liabilities (or a combination of both) from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity's ongoing major or central operations." Stock-based compensations do not always result in outflows of assets or incurrence of liabilities. However, FASB argues in SFAS 123 that stock-based compensation plans are valuable considerations given to employees for their services. The benefits stock options hold for employees result in an expense regardless of whether consideration is cash or other goods or services.

Moreover, stock-based compensations can in fact result in actual cash outflows or into significant opportunity costs for all companies. Below we explain these possibilities.

According to Newell and Kreuze (1997) many companies tend to keep a fixed number of shares outstanding. When employees exercise their stock options, companies in fact are selling their shares to employees at a discount. In order to hold a fixed number of shares outstanding companies then turn to the stock market and buy shares at a higher market price. When the price of the stock is going up there is a real cost to companies. That is when stock options cost the most. Microsoft, for instance, states the following in its Annual Report 2002 in the Notes to Financial Statements (Note 15 "Employee Stock and Savings Plans"): "The Company has an employee stock purchase plan for all eligible employees. Under the plan, shares of the Company's common stock may be purchased at six-month intervals at 85% of the lower of the market value…" (www.microsoft.com/msft/ar). In Note 13 "Stockholders' Equity" it is written: "The Company repurchases its common shares in the open market to provide shares for issuance to employees under stock option and stock purchase plans" (www.microdoft.com/msft/ar). As we see, companies do purchase their shares in the stock market at higher prices when stock options are exercised. These options are not recognised as an expense unless companies voluntarily choose to apply the fair value based method for accounting for stock-based

compensation. However, eventually these options result in a real cash expense for companies.

As noted above, there is also an opportunity cost for companies. When employees exercise stock options, the company is selling its stock to them at a discount. That discount is the difference between the higher market price and the exercise price. It creates a cost to the company even if the company is not going to the market to buy its shares. The company is giving up the opportunity to sell these shares in the market at a higher price. Hence, the opportunity cost is the difference between the exercise price and the higher market price (Newell & Kreuze, 1997).

3.4.2 Arguments For No Expense Recognition

Despite all the many reasons for recognizing the stock-based compensation as an expense there are a lot of defendants of the contrary treatment. The main arguments presented by those disagreeing with the idea of expensing stock-based compensation plans are described below (Borrus, et al., 2002):

- Unlike salaries or other means of compensation, granting stock options results in no cash outlay for companies. Since there is no cost for a company to deduct, expensing stock-based compensation plans will only result into negative and unjustified reductions of earnings.
- There are no specific methods developed to measure stock-based compensation expense. All valuation methods require many assumptions and estimates. This situation can lead to reduced accuracy in financial statements and opens the way for manipulation.
- Deduction of stock-based compensation expense will reduce earnings, which might result in a fall in share prices.
- In order to secure earnings companies might start issuing fewer options. This will limit companies' ability to keep talented employees and restrain companies' ability to align the employees' and shareholders' interests.

Finally, according to Sahlman (2002), expensing stock-based compensation plans will not add any more information that is not already included in the financial statements. On the contrary, it might lead to less information in the footnotes to financial statements and to a more distorted picture of a company's economic condition.

3.5 Methods to Measure Stock-Based Compensation Expense

In this section we discuss various methods of measuring the expense that may result from stock-based compensation plans. Some of the proposed methods are based on option pricing models. We begin this section with a short explanation of some terms used in relation to options, their pricing and application to stock-based compensation plans. Following these explanations, we present an overview of models used to price stock options, including some comments on the difficulties to be encountered when using such models.

3.5.1 Explanation of Option-Specific Terms

The fixed price of the option, which was agreed by both, the writer of the option and its holder, and at which the holder can buy or sell an underlying asset, is referred to as the striking price or exercise price (Ross, et al., 1996).

There are two main types of options with regard to expiration: a European option and an American option. European options cannot be exercised before the expiration date, while American options can be exercised at any date after they are vested (www.e-analytics.com/optbasic).

Factors, which might influence the price of an option are as follows (www.e-analytics.com/optbasic):

The price of the underlying asset
The striking price of the option itself
The time remaining till the expiration date
The volatility of the underlying stock (in case of stock options)
Expected dividends on the underlying stock
The risk-free interest rate for the expected life of the option.

Stock volatility is one of the most influential factors. The concept of volatility describes the stock's tendency to undergo price changes. There are several types of volatility defined: historical, forecast and implied volatility (www.mdwoptions.com/volatility). Historical volatility is calculated measuring the actual movements in prices the stock has undergone in the past. However, it is more important to know the volatility the stock is going to have from the date of option issue till the date of expiration. In this case, volatility can hardly be precisely calculated, as the time frame is the future. Thus the volatility should be estimated. The estimated future volatility is called forecast volatility. Implied volatility, on the other hand, applies to the option itself rather than to the underlying stock (www.ivolatility.com/news).

As discussed previously, stock-based compensation plans can be measured at either intrinsic or fair value. (See Section 1.2) Under the intrinsic value based

method, compensation cost is recognised as an intrinsic value at the grant date. The intrinsic value is the difference between the current market price of the underlying stock and the exercise price of the option. Under this method most stock option grants result in no expense as the exercise price of the option on the grant date is normally equal to the fair value of the underlying stock (Pippolo, 2002). When an expense is calculated, using the intrinsic value method (i.e., when market price is not equal to exercise price at grant date), the compensation cost is recognised and expensed over the period when an employee performs related services. Under this method, the company must also disclose pro forma net income and earnings per share as if the fair value based method had been used (Wiedman & Goldberg, 2001).

Under the fair value based method, compensation cost is measured at the grant date and is recognised over the service period, which is normally the vesting period. The fair value is determined using an option pricing model. Option pricing models take into account such factors as the grant date, the exercise price, the expected life of the option, the current price of the underlying stock, its expected volatility, expected dividends on the stock and the risk-free interest rate over the expected life of the option. As the fair value of an option includes not only its intrinsic value but also its time value, the fair value approach results in a higher expense than the intrinsic value approach (Wiedman & Goldberg, 2001).

3.5.2 Overview of Option Pricing Models and Their Drawbacks When Applying to Stock-Based Compensation Plans

The fair value of stock-based compensation can be measured using option pricing models. Both IASB and FASB provide companies with the choice of measuring stock options using option pricing models. We here present a short introduction to the available models.

The most popular option pricing models are the Black-Scholes and the binominal models, which provide quite accurate estimates of the value of an option (www.ei.com./publications/2001/winter1). Companies usually prefer the Black-Scholes model, which was introduced in 1973 by two financial academics, Fischer Black and Myron Scholes, and co-developed by Robert Merton. The Black-Scholes and binominal models are formulas that generate an expected of value stock option, i.e. an amount which an investor is willing to pay today for the opportunity to receive the benefits of the increase in value of the underlying stock during the life of the option (Restaino, 2001).

The assumptions made in option pricing models are as follows (www.bradley.bradley.edu):

No dividends are paid during the option’s life
European exercise terms are used
Markets are efficient
There are no commissions charged
Interest rate remains constant and known.

The Black-Scholes model and standard binominal models were created to be used for short-term investment instruments, which are publicly traded. Therefore, they cannot, without modification, be used to value employee stock options. In fact, these option pricing models can considerably overstate the value of the employee stock options (www.ei.com/publications/2001/winter1). Alfred King, Vice Chairman of Valuation Research Corp. in the United States, said that the Black-Scholes model is good for publicly traded options, but is inappropriate for employee stock options (Harrison, 2002). A number of companies, such as Wal-Mart and Commerce Bancorp Inc., have also noted the drawbacks of the existing option pricing models. In their annual reports the companies stated that since employee stock options differ from traded options and since option valuation methods require a lot of subjective assumptions, which can affect the valuation, the existing option pricing models do not provide an accurate measurement of the employee stock options’ fair value (Harrison, 2002).

The expected dividends of the stock, the expected life of the option and the expected volatility of the stock require a lot of professional judgement from accountants. When estimating dividends, accountants should consider the historical pattern of paying dividends. However, there is a probability that historical dividend payout will not be sustained. In such cases, accountants have to find a different way to estimate dividends. The expected life of options depends on the vesting period. If there is any indication that options might be exercised earlier, the company should use the average length of time during which similar grants were outstanding in the past. The expected volatility is the most complex to estimate. Again, accountants should look at the historical volatility of the stock (Bushong, 1996).

While publicly traded options are quite short-term, can be exercised at any time and can be traded freely, employee stock options are of a considerably different nature. As a rule, employee stock options have a longer life period, can be exercised after a long vesting period and, most importantly, they are non-transferable (Harrison, 2002).

The non-transferability of employee stock options is an important limitation. Standard option pricing models assume that options will be exercised at or

close to the optimal exercise price. The transferability of options ensures that they won't be exercised prematurely. If, for example, the holder of the option does not want to hold it until the appropriate exercise date, he/she can sell the option to another investor, who will wait until the optimal time. The transferable options can change hands, but won't be exercised ahead of time. In case of employee stock options, if the holder of the option wants to divest it, there is only one alternative, i.e. to exercise the option, even if the time is not appropriate and the value received will be less than optimal (www.ei.com/publications/2001/winter).

In addition, employee stock options can have a reload feature, which traded options do not have. A reload feature automatically grants new options to an executive when original options are exercised. The exercise price of the option with a reload feature is usually equal to the market price of the company's shares at the date when the original options are exercised. An option with a reload feature is more valuable than a conventional option. The holder of the reload option has the benefit of exercising existing options and still having options for future exercise (Saly & Jagannathan, 1999).

Thus, the right option pricing model which would correctly estimate the value of employee stock options is the one which could be adjusted considering the unusual nature of employee stock options.

Another problem with the measurement of stock options is the problem of the exercise period. The question is whether to measure stock options at a grant date or vesting date. If the measurement date is the grant date, then what would be the fair value of the stock option, which the employee may exercise in five or ten years, or maybe never? (Cheatham, 1995). The possibility of early exercise of stock options makes the issue of stock options measurement more challenging. Employees may choose to exercise their options prematurely in order to eliminate their exposure to risk. Therefore, in order to reduce the errors in measurements, it will be necessary to eventually adjust the estimated expense if the actual terms differ from those estimated (Hemmer & Matsunaga, 1994). FASB and IASB are aware of this problem. Due to possibility of early exercise, both SFAS 123 and Exposure Draft 2 require the stock options to be valued based on the expected life of the stock options rather than their contracted lives.

3.6 Accounting for Stock-Based Compensation in the United States Prior to SFAS 123

Accounting for stock-based compensations has long been a controversial issue. Two questions have dominated the standard setting process in the area of stock-based compensations: Should compensation expense be recognized for stock options? If yes, over which periods should it be allocated? (www.nysscpa.org/cpajournal/2001/0500/
features). In October 1972, Accounting Principles Board (the APB) in the United States issued Opinion No. 25 (APB 25) "Accounting for Stock Issued to Employees.". APB 25 measures compensation on the intrinsic value of the granted options. The intrinsic value of an option is defined as the difference between its exercise price and the current price of the given stock at any point during its life (Brozovsky & Kim, 1998). Under APB 25 the amount of compensation is determined at the measurement date. The measurement date is the first date on which both the number of the shares the employee will receive and the exercise price are known. Usually, this is a grant date (Brozovsky & Kim, 1998). But at a grant date the market price and exercise price are normally the same. Therefore, corporations do not recognize any compensation expense related to stock options (www.orgs.comm.virginia.edu/ mii/education/Funda mentals).

3.7 The History of SFAS 123 "Accounting for Stock-Based Compensation"

The accounting professionals were not satisfied with the approach allowed by APB 25 as it ignored the possibility that one day the stock price might be higher than the exercise price. FASB worked for eleven years (1984-1995) to develop a new standard (www.fwcook.com). In 1993, FASB issued an Exposure Draft of a new standard, which required the companies to measure the expense of stock options at their fair value and show it on their income statement. However, the business community firmly objected to the Exposure Draft. Eventually, in October 1995, FASB released Statement of Financial Accounting Standard No. 123 "Accounting for Stock-based Compensation" (www.online.wsj.com/article). SFAS 123 allows, but does not require, companies to use the fair value method to measure the compensation expense. Under the fair value method, companies have to measure compensation expense at a value of an award on a date it is granted. Companies are allowed to continue using APB 25, but have to provide disclosure of the effects SFAS 123 would have on their net income and earnings per share. Due to this disclosure rule, every company which is offering employee stock options must perform the calculations required by SFAS 123 (Brozovsky & Kim, 1998).

In the wake of the U.S. accounting scandals of 2001-2002, more and more companies chose to expense the cost of employee stock options. As late as mid July of 2002 only two companies between the Standard and Poor's 500 were expensing the cost of stock options. By mid September 2002 more than ninety companies said they would do the same. This is the clear indication how the public opinion and politics can influence corporate behaviour (Levinsohn, 2002).

In its News Release of July 31, 2002, FASB discussed the advantages of applying the SFAS 123 and presented its intention to undertake a limited-scope project related to the transition provision of SFAS 123 (www.fasb.org/news/nr073102).

On October 4, 2002 FASB issued an Exposure Draft "Accounting for Stock-Based Compensation – Transition and Disclosure," which would amend SFAS 123. There were two major purposes for issuing this amendment (www.fasb.org/news/nr100402):

> To enable the companies that choose to apply the fair value based method to report the full effect of employee stock options in their financial statements immediately upon adoption;
> To provide a better and more frequent disclosure about the cost of employee stock options for investors and other financial statement users.

The amendment was released as SFAS No. 148 on December 31, 2002.

More detailed review of both SFAS 123 and SFAS 148 are presented in Sections 3.9 and 3.10.

3.8 The History of Accounting for Share-Based Compensation by IASB

There is no existing International Financial Reporting Standard on share-based payment. This gap in the International Accounting Standards area has become a great concern as the number of companies using share-based payments is constantly growing. International Accounting Standard (IAS) No.19 "Employee Benefits" deals to some extent with equity compensation benefits. However, it only covers the disclosure requirements. Therefore, in July 2000, International Accounting Standards Committee (IASB's predecessor) published a Discussion Paper "Accounting for Share-based Payment" for public comment. In July 2001, the IASB decided to further develop the Discussion Paper in order to eventually make it an Exposure Draft. Some of the IASB members were concerned with the possibility of being criticised for lack of due

process by preparers who were opposed to expensing stock options in the income statement (The Economist, November 2002, Vol. 365, Issue 8298). Hence, in September 2001, the IASB requested further comments on the Discussion Paper, which were required to be submitted by December 15, 2001. After careful consideration of the received comments and with the assistance of the project's Advisory Group, which consisted of individuals from different countries, the IASB issued Exposure Draft 2 "Share-Based Payment" on November 7, 2002 (www.iasb.co.uk). The comments on this Exposure Draft should be submitted by March 7, 2003. A final version of the standard is likely to be published in late 2003 and would take effect on January 1, 2004. It would administrate all options granted since the day the formal draft is published (www.online.wsj.com/article/0SB102686178947884200.html).

3.9 Examination of FASB Statement No. 123 "Accounting for Stock-Based Compensation"

This Statement (issued 1995) establishes financial accounting and reporting standards for stock-based employee compensation plans. The Statement covers all arrangements by which employees receive shares of stock or other equity instruments of the employer or the employer incurs liabilities to employees in amounts based on the price of the employer's stock.

The Statement also applies to transactions in which a company issues its equity instruments to acquire goods or services from non-employees. In such cases the goods or services have to be accounted for based on the fair value of the consideration received or the fair value of the equity instruments issued (SFAS 123, par. 6).

SFAS 123 provides a choice of accounting methods for stock transactions with employees. This Statement establishes the fair value based method of accounting for stock-based compensation plans. It also encourages entities to adopt this method of accounting in place of the provisions of the APB 25 "Accounting for Stock Issued to Employees." However, the intrinsic value based method of accounting prescribed by APB 25 still can be used for measuring compensation costs for the plans. Entities that decide to continue using the intrinsic value based method must make pro forma disclosures of net income and, if presented, earnings per share, as if the fair value based

accounting method had been applied measuring compensation cost (SFAS 123, par. 11).

A company should apply the same accounting method, either the fair value based method or intrinsic value based method, in accounting for all of its stock-based employee compensation arrangements (SFAS 123, par. 14).

Usually, part or all of the consideration received for equity instruments issued to employees is for past or future services. Equity instruments issued to employees and the cost of the services received as consideration shall be measured and recognised based on the fair value of an equity instruments issued (SFAS 123, par.16).

Measurement is made estimating the fair value, based on the stock price at the grant date of stock options or other equity instruments to which employees become entitled when they have rendered the required service and satisfied any other condition necessary to earn the right to benefit from the instruments (SFAS 123, par 17).

The fair value of stock option (or its equivalent) granted by a public company shall be estimated using an option-pricing model that takes into account as of the grant date the exercise price and expected life of the option, the current price of the underlying stock and its expected volatility, expected dividends on the stock, and the risk-free interest rate for the expected term of the option (SFAS 123, par. 19).

A non-public company shall estimate the value of its options based on the same factors as described for public entities, except that a non-public company need not consider the expected volatility of its stock over the expected life of the option (SFAS 123, par. 20).

Usually it is possible to estimate the fair value of most stock options and other equity instruments at the date they are granted. Otherwise, the final measure of the compensation cost shall be the fair value based on the stock price and other performance factors at the first date at which it is possible to reasonably estimate that value. Estimates of compensation cost for periods during which it is not possible to determine the fair value shall be based on the current intrinsic value of the award (SFAS 123, par. 22).

The compensation cost recognised for the award of stock–based employee compensation shall be based on the number of instruments that eventually vest. No compensation cost is recognised for awards that employees forfeit either because they fail to satisfy a service requirement for vesting, such as for a fixed

award, or because the company does not achieve a performance condition (SFAS 123, par. 26).

A company may choose at the grant date to base accruals of the compensation cost on the best available estimate of the number of options or other equity instruments that are expected to vest and to revise that estimate, if necessary, if subsequent information indicates that actual forfeitures are likely to differ from initial estimates. Alternatively, a company may begin accruing compensation cost as if all instruments granted that are subject only to a service requirement are expected to vest. The effect of actual forfeitures would be then recognised as they occur (SFAS 123, par. 28).

The compensation cost for an award of equity instruments to employees shall be recognised over the period(s) in which the related employee services are rendered by a charge to compensation cost and a corresponding credit to equity if the award is for future services. If the service period is not defined as an earlier or shorter period, the service period shall be presumed to be period from the grant date to the date that the award is vested and its exercisability does not depend on the continued employee service. If the award is for past services, the related compensation cost shall be recognised in the period in which it is granted (SFAS 123, par. 30).

The employer is required to include certain disclosures about stock-based employee compensation arrangements in its financial statements regardless of the chosen accounting method. A company shall provide a description of the plan(s), such as vesting requirements, the maximum term of options granted, and the number of the shares authorised for grants of options or other equity instruments (SFAS 123, par. 45).

3.10 Examination of FASB Statement No. 148 "Accounting for Stock-Based Compensation – Transition and Disclosure"

On October 4, 2002, FASB issued an Exposure Draft called "Accounting for Stock-Based Compensation – Transition and Disclosure", which was an amendment of SFAS 123. On December 31, 2002, FASB published SFAS No. 148 "Accounting for Stock-Based Compensation – Transition and Disclosure" (www.fasb.org/news/nr123102.shtml). SFAS 48 is based on the ED.

Further we look into two main parts of this Statement: Amendment to Transition Provisions and Amendment to Disclosure Provisions.

SFAS 123 required companies, which adopted the fair value based method, to apply this method prospectively for new share options granted. This caused a

so-called “ramp-up” effect on reported compensation cost, which worried both companies and investors as there was no consistency in the reported results. However, FASB was concerned that retroactive application of the fair value method would be troublesome for financial statement preparers as the historical assumptions necessary for establishing the fair value of shares or options granted before the introduction of SFAS 123 were not readily available. In order to assist companies willing to apply the fair value for measuring shares or options granted, SFAS 148 provides two more methods of transition. Both methods eliminate the ramp-up effect by including company’s stock-based compensation expense immediately upon adoption. At present, if the company decides to adopt the fair value method of accounting for share option plans, the amendment to Transition Provisions, paragraph 52 of SFAS 123, allows the three following alternatives:

a. “The company can apply the fair value based method of accounting for share option plans to all share options granted to employees, or share options modified or settled, after the beginning of the fiscal year in which this method is applied for the first time.
b. The company can recognise stock-based employee compensation cost from the beginning of the fiscal year in which the fair value based method of accounting for share options was applied for the first time as if this method had been used to account for all employee share options granted, modified or settled in fiscal years beginning after December 15, 1994.
c. The company can restate all periods, which reflected stock-based employee compensation cost under the fair value based accounting method for all employee share options granted, modified or settled in fiscal year beginning after December 15, 1994.”

SFAS 148 improves the clarity of disclosures about the pro forma effects of applying the fair value based method of accounting for stock-based compensation for all companies, regardless of the accounting method used. It amends paragraph 45 of SFAS 123 and requires all companies to disclose the method used to account for stock-based employee compensation in each reported period. If the company adopts the fair value based method it has to describe the method it used to report the change in accounting principles. If the company uses the intrinsic value method, it has to present pro forma amounts and differences, if any, in stock-based employee compensation cost, included in net income as well as additional tax effects, if the fair value method had been used.

The timing of disclosure has also been improved. SFAS 148 requires companies to include disclosure in both, interim and annual financial statements.

3.11 Examination of the IASB Exposure Draft 2 "Share-Based Payment"

On November 7, 2002, IASB issued an Exposure Draft 2 (ED) "Share-Based

Payment. The ED consists of three main parts (www.iasb.co.uk):

Share-based Payment
Share-based Payment – *Basis for Conclusions*
Share-based Payment – *Draft Implementation Guidance*

The draft requires a company to recognize all share-based payment transactions in its financial statements, including transactions that will be settled in cash, other assets or equity of the company.

There are three types of transactions defined (ED 2, par.3):

Equity-settled share-based payment transactions
Cash-settled share-based payment transactions
Transactions in which the company receives or purchases goods or services and either the company or the supplier of the goods or services has the right to choose whether the company pays the transaction in cash, in the amounts based on the price of the company's shares or other equity instruments, or by issuing equity instruments.

Here we will concentrate on equity-settled share-based payment transactions, with greatest emphasis on the issue of share options granted to employees, as the issue of expensing the employee stock options is the most controversial.

The company has to recognize the goods or services it receives or acquires in a share-based payment transaction when goods or services are actually obtained or purchased. In case the obtained goods or services do not qualify for recognition as assets they should be expensed (ED 2, par.4).

Additionally, it is written that the company has to measure the equity-settled share-based transactions either directly, at the underlying fair value of the goods or services obtained in such transactions, or indirectly, by reference to the fair value of the equity instruments granted. The choice of the direct or

indirect method depends on which fair value is more easily determinable (ED 2, par. 7).

Subsequently, the company has two choices with regard to timing of transaction recognition. If the fair value is measured directly, fair value should be determined at the date the company obtains the goods or receives the services. If the fair value is measured indirectly, it should be established at a grant date (ED 2, par.8).

For transactions with parties other than employees it is assumed that the fair value of goods or services received is more easily determinable as normally an established market exists for those goods and services (ED 2, par.10). However, as far as transactions with employees are concerned the issue of fair value determination becomes more complicated. Normally, share options are given to employees as part of their pay package. Therefore it is impossible to determine directly the fair value of the services of a particular part of employees' pay packages. Hence, the company should measure the fair value of employee services received by reference to the fair value of the equity instruments granted, because the latter is more easily determinable (ED 2, par.12).

ED states that the fair value of shares granted should be measured at the market price of the company's shares if the company's shares are publicly traded. Otherwise, the company has to estimate the market price (ED 2, par.19).

The fair value of options granted should be measured at the market price of traded options with similar terms and conditions. However, often such traded options do not exist, because options granted have terms and conditions, which differ from those of traded options. In such cases, the company should apply an option pricing model in order to estimate the fair value of the options granted. ED proposes to apply the Black-Scholes model or a binominal model.

When using an option pricing model, the factors which should be taken into consideration are the exercise price of the option, the life of the option, the current price of the underlying asset, the expected volatility of the share price, the dividends expected on the shares, and the risk-free interest rate for the life of the option. (ED 2, par.20).

The distinction is made in ED between contracted life of the option and its expected life. Expected life is defined as the period of time from grant date to the date on which an option is expected to be exercised. For non-transferable options, the option's expected life rather than its contracted life should be used.

It is especially important in the case with share options granted to employees as they are non-transferable (ED 2, par.21).

When the company measures the fair value of options or shares granted expected dividends should be taken into consideration (ED 2, par.23).

If there are any specific vesting conditions to be satisfied, they should also be considered when estimating the fair value of options or shares. For example, when options or shares are granted to employees, they are usually tied to employees' remaining employment in the company for a specified length of time (ED 2, par.24).

ED requires companies to provide comprehensive disclosure regarding the shares or options granted. Companies are obliged to present such data as a description of each type of share-based payment arrangement and the number and weighted average exercise prices of options. Companies should also disclose the information which would enable the users of financial statements to understand how fair value of shares or options granted was estimated. In addition, disclosure of the effect of expenses, which arise due to the share-based payment transactions, on the companies' profit and loss statements is required (ED 2, par.45-53).

3.12 Invitation to Comment "Accounting for Stock-Based Compensation: A Comparison of FASB Statement No.123, Accounting for Stock-Based Compensation and Its Related Interpretations, and IASB Proposed IFRS Share-Based Payment"

This Invitation to Comment was issued by FASB in November, 2002 to request comments on certain issues that FASB will discuss in order to improve U.S. financial accounting and reporting standard and to promote international convergence of high-quality accounting standards. These comments were requested by February 1, 2003. The Invitation to Comment requests opinions on the differences between SFAS No. 123, "Accounting for Stock-Based Compensation", and its related interpretations, and IASB Proposed International Financial Reporting Standard, "Share–Based Payment"(ED 2). Furthermore, the Invitation to Comment uses those differences to request views on other aspects of accounting for stock-based compensation at fair value.

It is stated in the Invitation to Comment that both standards are based on different principles. The ED 2 and SFAS 123's main purpose is to account for stock-based compensation by measuring and recognising the fair value of goods and services received in exchange for equity instruments. In the area of

transactions with employees, SFAS 123 uses a modified grant-date fair measurement method: the reason for using grant date is that fair value of the ward is initially determined at its grant date, and the reason for using vesting date is that compensation cost related to the award is adjusted for subsequent events such as actual forfeitures and actual outcomes of performance conditions.

In the area of transactions with employees, ED 2 uses a form of the grant-date fair value measurement method as a practical expedient. Vesting-date measurement method is not used.

Looking at the effect of forfeitures, ED 2 suggests discounting the fair value of an equity instrument determined at grant date for the effect of possible forfeitures due to failure to satisfy the vesting conditions. Aggregate compensation expense should be measured at the number of units of service received during the vesting period multiplied by the discounted fair value per unit of service determined at the grant date. Amounts recognized for employee services are not subsequently reversed, even if the equity awards granted are forfeited. According to SFAS123, the fair value of an equity instrument determined at grant date should not be adjusted for the effect of possible forfeitures due to failure to satisfy the vesting conditions. Aggregate compensation expense should be measured at the number of vested equity instruments multiplied by the fair value of those equity instruments at the grant date. Amounts recognized for employee services during the vesting period are subsequently reversed if the equity awards granted are forfeited.

In the Invitation to Comment similarities of and differences between SFAS 123 and ED 2 are presented with respect to accounting for stock-based compensation using the fair value based method. These similarities and differences are classified in five main categories: scope, recognition, measurement, disclosure, and transition.

The most important similarities are compiled in Table 2 and the differences in Table 3.

Table 2: The most important similarities of SFAS 123 and ED 2

Similarities	SFAS 123 and ED 2
Equity Instruments	Equity instruments, including stock options granted to employees, are valuable.
Measurement Objective	Fair value is established as the measurement objective for goods or services received.
Measurement Date for	It is required that the fair value of equity instruments granted to employees is measured at the grant date.

Transactions with Employees	
Attribution	It is required that compensation in the form of equity instruments granted to employees is recognised in the income statement over the period in which the employees provide services to earn the related benefits.

Table 3: The most important differences between SFAS 123 and ED 2

Differences	SFAS 123	ED 2
Issuance and Forfeitures	Equity instruments are issued only when valuable consideration has been exchanged. The concept of issuance is directly linked to its method of accounting for forfeitures. (For example, SFAS 123 reverses cumulative compensation expense for equity instruments that are forfeited.)	Issuance of equity instruments has no effect on its conclusions, regardless of how it is defined. The method of treating forfeitures is based on a totally different rationale comparing with SFAS 123. (For example, ED 2 does not reverse cumulative expense for equity instruments that are forfeited.)
Measurement Date for Transactions with Non-employees	The standards recommend different dates to measure the fair value of equity instruments granted for transactions with non-employees when the fair value of the equity instruments issued is more reliably measurable than the value of the goods or services received.	
Attribution	Different methods are used to attribute compensation to expense over the period in which benefits are earned. This influences a difference in the total amount of cumulative compensation expense being recognised over the life of the award and also a different expense recognition patterns over the life of award.	
Income Tax Benefits	Excess tax (tax benefits in excess of those associated with recognised cumulative compensation expense) should be recognised as additional paid-in capital.	All tax benefits should be recognised in the income statement.
Employee Stock Ownership Plans (ESOPs)	ESOPs are excluded from SFAS 123 and are accounted for according to American Institute of Certified Public Accountants Statement of Position 93-6 “Employers’ Accounting for Stock Ownership Plans”.	ESOPs are included in the ED 2.
Non-public Entities	It is permitted for non-public entities to measure equity instruments granted at minimum value for transaction with employees, not taking into account expected stock price volatility.	It is required that both public and non-public entities measure equity instruments at fair value for transactions with employees.

The Invitation to Comment summarises the primary and secondary similarities and differences, but it does not list all similarities and differences between SFAS 123 and ED 2. The idea of issuing the Invitation to Comment was to encourage an analysis of the ED 2 in order to promote international convergence of high-quality accounting standards.

4 Empirical Findings

In this chapter we present the empirical evidence collected in the course of our work. We review a number of Comment Letters submitted by various companies and professional organizations on FASB SFAS 123 "Accounting for Stock-Based Compensation", FASB SFAS 148 "Accounting for Stock-Based Compensation - Transition and Disclosure", and IASB Discussion Paper on Share-Based Payments (Discussion Paper). Further, we look into how companies account for stock-based compensation expense in their financial statements.

4.1 Review of Comment Letters Submitted to the ED for SFAS 123

From more than 700 Comment Letters submitted on the Exposure Draft SFAS 123 (www.fei.org/advocacy/download/StockOptions-whitepaper.pdf), we have selected the Comment Letters from ten large and well-known representatives of their industries – manufacturers, auditors, analysts and high-tech companies. Dates of letters are given in parentheses.

Arthur Andersen & Co., Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG Peat Marwick, Price Waterhouse (1994)
The Boston Security Analysts Society (1993)
The Coca-Cola Company (1993)
The Chase Manhattan Corporation (1994)
Merrill Lynch & Co., Inc (1993)
Oracle System Corporation (1994)
LTV Steel (1993)
Intel Corporation (1994)
JP Morgan (1994)
BankAmerica Corporation (1993)

Descriptions of each respondent are provided in order to describe the nature of their businesses.

4.1.1 Arthur Andersen & Co., Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG Peat Marwick, Price Waterhouse

The six biggest auditing companies, Arthur Andersen & Co., Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG Peat Marwick and Price Waterhouse, expressed their opinion in one Comment Letter. All these auditing companies agreed to oppose the Exposure Draft “Accounting for Stock-Based Compensation.” “As the overwhelming majority of the 1700 Comment Letters

indicates, the proposal to record the fair value of employee stock options has not been accepted.” According to these auditors, the fair value measurement approach will further impair the credibility and comparability of financial statements. Hence, the best solution is to use expanded disclosures.

4.1.2 The Boston Security Analysts Society

Since 1946, the not-for-profit Boston Security Analysts Society has been a point of connection for one of the world's most influential investment communities, providing an open forum for the exchange of fresh perspectives on industry issues. Through its numerous events and educational programs, Boston Security Analysts Society fosters professional growth, promotes fellowship and encourages integrity among Boston-area investment practitioners. Society events are normally held inside Boston's financial district, which provides convenient and unique opportunities to learn from peers, mentors and industry luminaries. The Boston Security Analysts Society has more than 4,000 members - investment professionals and is a founding society of the Association for Investment Management & Research that has over 50,000 members globally (www.bsas.org).

The Boston Security Analysts Society’s Comment Letter on the Exposure Draft “Accounting for Stock-Based Compensation” was the only one of our analysed ten Comment Letters which totally supported the Proposed Statement of Financial Accounting Standard. The Boston Security Analysts Society agreed that the value should be recognised in financial statements, not just disclosed in footnotes. It also stated its concern, however, about “the possible large impact on reported earnings and the earnings volatility of small companies as well as substantial concern about the use of volatility measures in deriving employee stock option values where no liquidity exists for significant periods of time”.

4.1.3 The Coca-Cola Company

The Coca-Cola Company (Coca Cola) is the world's leading manufacturer, marketer, and distributor of non-alcoholic beverage concentrates and syrups, used to produce nearly 300 beverage brands (www2.coca-cola.com).

Coca-Cola strongly opposed the Exposure Draft “Accounting for Stock-Based Compensation” because “the proposed accounting rules would not enhance the overall usefulness and reliability of our financial statements and, in fact, would provide a result that is less meaningful to the users of financial statements than the current rules.” Coca-Cola expressed its opinion on the three following items:

Valuation of traded stock options versus non-traded employee stock options

Coca-Cola disagreed with the recognition of compensation expense because of a lack of a reliable and objective measurement method, since “option pricing models were designed to value traded options,” which do not have such characteristics as vesting restrictions or performance requirements, and a non-transfer clause.

Subjectivity of certain assumptions

To prove the importance of such assumptions as stock volatility and dividend yield, Coca-Cola made preliminary calculations using the Black-Scholes options pricing model for the year’s issuance of employee stock options for the company. The calculation showed that the range of reasonably supportable assumptions “would produce a fluctuation in value up to 33 percent” and this would “reduce the reliability and relevance of our financial statements”.

Cost-benefit considerations

Coca-Cola listed the following main time and effort requirements in using the fair value measurement approach for stock-based compensation:

-determining the most appropriate variables to use (stock volatility, dividend yield);
-educating senior management about the specificity of the new rule;
-educating and communicating with the investors;
-creating and implementing accounting systems to accommodate the necessary bookkeeping requirements.

The company concluded that the increased effort and time consuming fair value measurement approach for stock-based compensations “would produce highly subjective results that can’t be verified.”

4.1.4 The Chase Manhattan Corporation

The Chase Manhattan Corporation (Chase) is the retail financial services franchise within JPMorgan Chase. The merger of The Chase Manhattan Corporation and JPMorgan & Co. Incorporated was completed in December 2000, combining one of the world's largest commercial banks with one of the most respected and influential investment banking institutions (www.jpmorganchase.com/cm/cs?pagename= Chase/ Href&urlname=jpmc/about/history).

Chase disagreed with the Exposure Draft "Accounting for Stock-Based Compensation" proposal to recognise the compensation expense in the financial statements because " the issuance of stock options represents a capital transaction, not one that requires a charge against earnings" and also "no reliable or consistent methods currently exist for determining the fair value of employee stock options." According to Chase, the most practicable and useful approach is to use disclosures to inform the financial statement users of a company's employee stock option plans.

The company also made comments on the following items:

Measurement Date

Chase agreed with Exposure Draft "Accounting for Stock-Based Compensation" position that the stock price at the grant date should be used to measure compensation cost.

Measurement Method

Chase opposed the suggestion that the fair value method be the basic measurement method because of lack of a reliable method for determining the fair value of stock options: "determination of fair value as proposed is basically subjective and includes numerous variables, which call into question its validity, and make comparisons among entities virtually impossible."

Chase also disagreed with allowing different methods for calculating employee stock option's value for non-public companies because it would "only perpetuate the problem of comparability."

According to Chase, the non-arbitrary way is the way to reduce the value of an employee stock option to reflect its non-transferability. Using employee stock option's actual life to calculate its value will lead to "further distortive results, i.e., a decline in stock price after the option's grant date lengthens the exercise period, thereby requiring additional compensation expense to be recognised."

Attribution Period

Chase expressed the opinion that "to the extent that compensation is required to be recognised, then the vesting period should be utilised."

Disclosure

Chase agreed that disclosure could be an alternative to compensation expense recognition.

Effective Dates and Transition

According to Chase, at least one year is required after issuance of the standard. The company also finds it practical to use the proposed three year period pro forma disclosures before the recognition provisions of the standard are required to be adopted.

4.1.5 Merrill Lynch & Co., Inc

Merrill Lynch & Co., Inc (Merrill Lynch) is one of the world's leading financial management and advisory companies, with offices in 36 countries and total client assets of approximately $1.3 trillion (www.ml.com/about_ml.htm).

Merrill Lynch stated that the value of employee stock options should not be recorded as compensation expense because "granting of stock options is a capital transaction that represents only a potential future dilution of stockholders' equity." Moreover, Merrill Lynch, like the majority of other previously mentioned companies, agreed that there is no objective method for estimation of the appropriate fair value of an employee stock option because stock option pricing models "do not account for such factors as vesting and the non-transferability of stock option grants." Merrill Lynch believed that additional disclosure could be the best solution.

The company expressed its opinion on the following issues:

Recognition of Compensation Cost

According to Merrill Lynch, "To achieve the best theoretical accounting result, companies should bifurcate restricted stock-based compensation awards into expense and capital components, and apply a discount (at the grant date) to the fair values (derived from option pricing models) for illiquidity." However, the company agrees that this would be very difficult to implement in practise. Therefore Merrill Lynch recommends using the minimum value method to record the income statement effect for stock option grants for the reason that it would help to "achieve a more realistic fair value for restricted stock options, eliminate the subjective volatility factor, and promote consistency and comparability of financial statements."

Measurement Method

Merrill Lynch recommended using the option vesting period to calculate compensation expense instead of the Exposure Draft "Accounting for Stock-Based Compensation" suggestion to adjust compensation expense by recording the change between the expected and the actual stock options' lives. The company disagreed with the FASB suggested way because it would be "administratively burdensome and distort the measures of financial performance."

4.1.6 Oracle System Corporation

Oracle System Corporation (Oracle) is the world's leading supplier of software for information management, and the world's second largest independent software company (www.oracle.com).

Oracle strongly opposed FASB Exposure Draft "Accounting for Stock-Based Compensation" proposal to require companies to take a charge against earnings for employee stock-based compensations. The company stated three main reasons for this opinion:

- The proposal would negatively impact Oracle's ability to offer stock options
- It would weaken the ability of high technology companies to remain competitive in the world economy.
- It would lead to less accurate financial reporting.

Oracle was also concerned about the Black-Scholes model, which according to the
company, would "cause confusion, inconsistency, and inaccuracy in corporate financial reporting." The measurement problem exists because there is no method that could precisely estimate:

- the nontransferability of employee stock options;
- their long-term exercisability;
- the requirement of continued employment to exercise the options;
- future stock price volatility;
- differences in vesting schedules; and
- changes in market price which are unrelated to company performance.

Oracle's recommendation to FASB was to inform shareholders in footnotes to the companies' financial statements together with theoretical valuation under the Black-Scholes model, and during several years period to make the decision whether this FASB Exposure Draft "Accounting for Stock-Based Compensation" should be implemented.

4.1.7 LTV Steel Corporation

The LTV Steel Corporation (LTV Steel) is a manufacturer with interests in steel and steel-related businesses. LTV Steel, along with 48 subsidiaries, filed voluntary petitions for relief under Chapter 11 of the U.S. Bankruptcy Code on December 29, 2000 (www.ltvsteel.com).

LTV Steel strongly opposed the Exposure Draft "Accounting for Stock-Based Compensation." The company expressed its preference for a disclosure-based approach. LTV Steel disagreed with recognition of employee stock-based compensation costs in financial statements because "the recognition of non-cash charges of employee stock award transactions, that do not affect cash flows or net equity, does not appear to be important in assessing the financial performance or condition of an enterprise." Furthermore, LTV Steel expressed its opinion on the following topics:

Valuation of Employee Stock Options

According to LTV Steel, "existing option pricing models are quite subjective and do not produce a reasonable or relevant value for employee stock options" because of big differences between traded options and non-traded employee stock options. LTV Steel concluded that it might be impossible to develop a consistent option pricing for employee stock options because "they do not trade and, because the assumptions used in the models are extremely subjective and produce an amount that is never verified in an actual transaction."

Use of Expected Term to Determine Expense and Value Options

LTV Steel disagreed with the Exposure Draft "Accounting for Stock-Based Compensation" proposal to use the expected term of the option on the grant date and then adjust the value using the actual term because it leads to "unnecessary complexity and inappropriate results."

The company listed two acceptable alternatives to make financial statement users aware of employee stock options:

- earnings per share calculations to reflect the effect on earnings per share of including options;
- usage of expanded disclosures.

4.1.8 Intel Corporation

Intel Corporation (Intel) supplies the computing and communications industries with chips, boards, systems and software building blocks that are the "ingredients" of computers, servers, and networking and communications products. These products rely on Intel's technology leadership and expertise in silicon design and manufacturing to help customers create advanced computing and communications systems (www.intel.com/intel/annual01/ about.htm).

Intel described the FASB proposal as representing both "improper accounting and impediment to entrepreneurism and innovation in U.S. high technology industries." Intel strongly opposed Exposure Draft "Accounting for Stock-Based Compensation" proposal to require taking an earnings charge for employee stock options because this proposal "could potentially undermine the credibility and comparability of corporate financial statements" in the following ways:

- The Black-Scholes method used as a valuation method for assessing the value of employee stock options would decrease financial statement accuracy since "this model will not adequately address the non-transferability of employee options, their long-term exercisability, or the requirement of continued employment to exercise the options."
- The proposed charge represents a non-cash expense, which will never be converted to cash, and might never have the value attributed to it. The Exposure Draft "Accounting for Stock-Based Compensation" does not offer a solution to reverse the charge if the value never materializes.
- The proposed changes would require a lot of implementation effort compared with the benefit.
- It would repeat an economic dilution effect already reflected in earnings per share.

According to Intel, because of a lack of a reliable employee stock option valuation method, it would be more "appropriate to disclose a range of possible outcomes in a footnote." The company suggests using only annual disclosure which would include the maximum value computed at the grant date of each year in a three year period.

4.1.9 JPMorgan Chase & Co.

JPMorgan Chase & Co. (JPMorgan) is a leading financial services firm. Its services include Investment Banking, Consumer Banking, Private Equity and Investment Management, Treasury and Securities Services and a number of other services (www.jpmorganchase.com).

JPMorgan stated that Exposure Draft "Accounting for Stock-Based Compensation" proposed accounting changes would not improve the quality or

credibility of financial statements. The company's biggest concern was employee stock option valuation issues. According to JPMorgan, the pricing models used for trading options would not produce "a mathematically derived 'theoretical' value which could not be verified by a market transaction." The company believed that the most appropriate solution would be a disclosure-based approach.

Furthermore the company made comments on the following issues:

Measurement Date

JPMorgan supported Exposure Draft "Accounting for Stock-Based Compensation" proposal to use the stock price at the grant date to measure compensation cost.

Measurement Method

JPMorgan agreed that the fair value is proper measurement attribute for stock awards. But the company opposed FASB's belief that "the use of existing option-pricing models together with adjustments for forfeitability and nontransferability produce estimates of the fair value of employee options that are sufficiently reliable and relevant to justify recognition in the financial statements."

The company listed specific factors that, in their opinion, should be incorporated in the option pricing model for valuing employee stock options:

- non-transferability;
- delayed exercisability due to vesting day;
- forfeiture of options due to employee leaving the company before vesting;
- different borrowing/reinvestment rates faced by individual employee stock option holders;
- inability of employees to unlock the time value of options through dynamic hedging; and
- the irrational early exercise of an option which tends to be a function of stock price.

In JPMorgan's view, the measurement method should be consistent for all companies (public and non-public). The company agreed that there is just an arbitrary way to reduce the value of an employee stock option to reflect its nontransferability.

Attribution Period

The company concurred that the period from the grant date to the vesting date would be the appropriate period for recognising employee stock options compensation costs.

Disclosures

JPMorgan believed that disclosures were the proper way of informing financial statement users. However, the company considered that some information should remain confidential, such as the expected volatility factor and expected dividend yield. Relying totally on estimates based disclosures might lead to financial statement users' misinterpretations. According to JPMorgan, it is very important that the benefit of providing the information to the financial statement users justify the cost of providing it.

Effective Date and Transition

JPMorgan stated that "A disclosure-based approach is the most appropriate course of action for stock –based compensation." The company also agreed with the proposed three year period of pro forma disclosures before the recognition provision of the Exposure Draft "Accounting for Stock-Based Compensation" are required to be adopted.

4.1.10 BankAmerica Corporation

BankAmerica Corporation (BankAmerica) is one of the world's leading financial services companies. BankAmerica serves individuals, small businesses and commercial, corporate and institutional clients across the United States and around the world (www.bankofamerica.com/investor/).

BankAmerica did not support either the income statement recognition or the pro forma disclosure provisions of the Exposure Draft "Accounting for Stock-Based Compensation." The company disagreed with "measuring employee stock options at 'fair value' for both practical and conceptual reasons." BankAmerica suggested measuring all employee stock options (of public and non-public companies) at their "minimum value."

BankAmerica made comments on the following issues:

Measurement Method

According to Exposure Draft "Accounting for Stock-Based Compensation", the differences between traded stock options and employee stock options (the nontransferability, the forfeitability of employee stock options) could be compensated by adjusting the fair value produced by traded option pricing models. The company stated that FASB proposal "underestimates the complexity of making adjustments to a traded option pricing model."

BankAmerica suggested using a minimum value method for employee stock option valuation mostly because of practical reasons. Regarding the minimum value method BankAmerica states: "the initial calculation itself is simple, and the variables that enter into calculation are objective." Furthermore, significant number of adjustments would not be necessary. It is more precise and accurate than the fair value method. The fair value calculation is much more judgmental and complex than the minimum value calculation. Therefore the company expressed its opinion that "it would be more representationally faithful to measure employee stock options at minimum value (and to disclose this as the measurement basis) than to measure them at fair value."

Measurement Date

The company supported Exposure Draft "Accounting for Stock-Based Compensation" proposal to use the stock price at the grant date to measure compensation cost.

Attribution Period

The company supported FASB's opinion that "no compelling reason exists to extend the attribution period beyond the vesting date, because as the Board indicates, the right to retain and exercise the option has been earned by the date the option vests."

Disclosure

The company also opposed Exposure Draft "Accounting for Stock-Based Compensation" proposal to have a three-year disclosure period followed by income statement recognition in the fourth year. BankAmerica Corporation agreed just with requirement of additional disclosures only. The company also stated that FASB should require "either disclosure or recognition from the effective date forward, but not one and then another."

Effective Date and Transition

BankAmerica suggested delaying the effective date by at least one year from the date when Exposure Draft "Accounting for Stock-Based Compensation" is finalised in order to give financial statement preparers time to understand and implement it.

4.2 Review of Comment Letters Submitted to the ED for SFAS 148

As it was not possible to examine all submitted Comment Letters, we have chosen seven companies and two organizations, which presented their comments on the proposed Amendment which eventually resulted in SFAS 148.. Where possible, we have selected respondents who also provided Comment Letters to the Exposure Draft for SFAS 123. Dates of letters are given in parentheses.

The selected companies are:

The Coca-Cola Company (2002)
The Software & Information Industry Association (2002)
Anheuser-Busch (2002)
Accounting and Valuation Group of UBS Warburg Equity Research (2002)
JPMorgan Chase & Co. (2002)
SunTrust Banks, Inc. (2002)
Merrill Lynch & Co. (2002)
Microsoft Corporation (2002)
Credit Suisse Group (2002)

Further, we review the most controversial issues or issues that raised the most concern for respondents. Again, we provide brief description of each respondent, unless they were discussed previously.

4.2.1 The Coca-Cola Company

The Coca-Cola Company (Coca-Cola) adopted the fair value method of accounting for stock-based compensation plans, proposed in SFAS 123 as of January 1, 2002. Taking into consideration this decision made by the company, Coca-Cola was extremely interested in the requirements of the proposed statement.

In its Comment Letter, Coca-Cola agrees with FASB suggestion to apply the fair value method, stressing the importance of the two additional transition methods stated in SFAS 148, which would help companies to avoid the ramp-

up effect. Nevertheless, the company airs its disagreement about the location of certain required disclosures in financial statements. SFAS 148 requires companies to disclose an extensive amount of information, which should be presented in the "Summary of Significant Accounting Policies." Coca-Cola believes it would be more appropriate to include such specific disclosures in a separate footnote related solely to stock-based compensation.

4.2.2 The Software & Information Industry Association

The Software & Information Industry Association (SIIA) is the principal trade association for the software and digital content industry. SIIA provides global services in business development, corporate knowledge and intellectual property protection to more than 500 leading software and information companies. SIIA's members are both the largest and oldest technology enterprises of the world as well as small and new companies (www.siia.net).

In general, SIIA supports FASB's attempt to amend SFAS 123 and provide companies who wish to adopt the fair value method of accounting for stock-based compensation plans with two more transition methods and approves the requirements for better and more frequent disclosure to be provided to investors.

The primary concern expressed in SIIA's Comment Letter is related to valuation models used for measuring employee stock options. SIIA highlights that "…more flexibility and additional transparency alone will not necessarily provide investors with better or more meaningful information."

SIIA places an emphasis on the imperfections of the Black-Scholes model used to measure stock option expense. The fair value estimated by option pricing models, in SIIA's opinion, does not accurately reflect the actual expense, as the estimated amount is not what will be realized by employees. Therefore, valuation using a modified option pricing models will result in overstated expense in financial statements.

Another concern of SIIA is the lack of standardization in valuation methodologies. Considering that SFAS 123 permits the use of the Black-Scholes model or any other valuation model, which includes six variables, companies will start developing new approaches to establish a fair value of stock-based compensation plans. The choice of valuation model, combined with company-specific calculations, provides inconsistent and incomparable results to investors. From the investors' point of view, comparing the cost of stock options for different companies with different stock option plans and

different variations of the Black-Scholes model will not be meaningful in any way.

In conclusion, SIIA stresses its strong belief that the intrinsic value method is the most appropriate method for measuring stock-based compensation expense, as this method would provide most valuable investor information.

4.2.3 Anheuser-Busch

Anheuser-Busch is a worldwide operator in beer, adventure park entertainment and packaging. Its interests also cover aluminium beverage container recycling, malt production, rice milling, real estate development and transportation services (www.anheuser-busch.com).

In its Comment Letter, Anheuser-Busch states that "…stock option accounting is not an issue of either transparency or full disclosure." In the company's opinion, all the information investors need is already available in companies' annual reports. Anheuser-Busch deems FASB's proposed multiple-choice approach to transition and disclosure as ill advised. Providing several adoption alternatives for companies will only confuse investors and in no way will add more clarity of disclosure.

The suggestion of Anheuser-Busch is to select a single method of transition, namely the full restatement method, as it is the simplest one. The information, which is necessary to restate the previous periods, is already available as companies had to provide pro forma disclosures since the introduction of SFAS 123. Besides, it places all companies choosing to expense stock options on the same footing.

The relocation of disclosure regarding the income statement impact of stock options is, in Anheuser-Busch's view, a form-over-substance measure. Moving this disclosure from the footnotes to the "Summary of Significant Accounting Policies" section won't increase the effectiveness of disclosure. However, it will elevate it over other disclosures, which is not justified. It is the users of financial statements, who have to determine the importance of individual disclosures based on their specific investment criteria, and not the placement of disclosure within the report.

4.2.4 Accounting and Valuation Group of UBS Warburg Equity Research

The Accounting and Valuation Group of UBS Warburg Equity Research (UBS Warburg) gives advice on financial accounting and equity valuation

methodology to UBS Warburg equities clients and to equity analysts within UBS Warburg Equity Research (www.ubswarburg.com).

UBS Warburg believes that FASB's proposal to permit three methods of transition would further impair the comparability and consistency of reported results. Users of financial statements would not only have to distinguish which companies have adopted the fair value based method, but will also have to determine which transition method these companies used.

In UBS Warburg's view, stock options meet the recognition criteria, i.e. there is a cost to shareholders when stock options are issued, the cost can be measured with sufficient reliability and the information is both, value relevant and reliable. Therefore, UBS Warburg recommends FASB to endorse the fair value based method of accounting for stock option plans. It is the company's belief that the fair value based method better reflects economic reality and economic position of companies.

UBS Warburg supports the adoption of only one transition method. Retroactive restatement is considered to be the most appropriate as it provides consistent and comparable results. However, UBS Warburg stresses that if FASB is unable to adopt full retroactive restatement, then the modified prospective method would be a reasonable compromise.

4.2.5 JPMorgan Chase & Co.

JPMorgan Chase & Co. (JPMorgan) applauds the attempt of FASB and IASB to bring convergence to accounting standards around the world. However, it disagrees with the main provisions of the proposed amendment. JPMorgan advises the continued use of the prospective method of transition, which is required by SFAS 123. Although the firm is not opposed to the use of other two alternative methods, it says that since many companies, which adopted fair value based method of accounting for stock-based compensation plans, have already implemented the prospective method, and other companies should continue doing so in order to ensure a higher degree of comparability in future.

With regard to disclosure requirements JPMorgan advocates just disclosing information in footnotes to the financial statements, not showing the expense in income statement. In the firm's opinion, showing the pro forma effect of expensing stock options would be sufficient. Moreover, disclosure should be included in footnotes, not in the "Summary of Significant Accounting Policies."

4.2.6 SunTrust Banks, Inc.

SunTrust Banks, Inc. (SunTrust) is one of the U.S. largest commercial banking organizations. SunTrust's primary businesses include deposit, credit, trust and investment services. The company provides credit cards, mortgage banking, insurance, brokerage and capital market services (www.suntrust.com).

SunTrust believes that the introduction of two additional methods of transition to companies, who voluntarily choose to adopt the fair value based method of accounting for stock-based employee compensation plans, would cause inconsistency and incomparability of financial results. The possibility exists that, e.g., three similar companies in the same line of business, each having a comparable number of outstanding options, would choose a different method of transition and show various amounts of stock-based compensation expense. In addition, the fourth company in the same line of business with a similar number of outstanding options may choose to apply the intrinsic value based method of accounting for stock options. Consequently, the results provided by these companies would be absolutely incomparable. SunTrust emphasizes that more disclosure itself will not be useful unless there is only one uniform transition method. In general, the company approves the method proposed in SFAS 123, namely prospective recognition, as this method in conjunction with new disclosure requirements will fulfil the goal of providing comparable and consistent results in financial statements.

4.2.7 Merrill Lynch & Co., Inc.

Merrill Lynch & Co., Inc. (Merrill Lynch) supports FASB's decision to provide companies with two additional transition methods as it will address the issue of comparability of reported results. Merrill Lynch especially supports the continuation of using the prospective transition method. If it is removed, it may discourage some of the companies from voluntarily adopting the fair value based method of accounting for stock-based compensation.

Merrill Lynch recognizes the concern of lack of comparability if three transition methods are allowed. The company's argument is that inconsistency does exist under current rules and increasing transition choices will hardly impair comparability any further.

Also, Merrill Lynch turns FASB's attention to the valuation methodology allowed by SFAS 123. It questions the ability of the Black-Scholes option pricing model to adequately address the non-transferability feature of options and therefore accurately measure the expense. The company believes FASB should revise its provisions on option pricing models and allow more refined techniques to be used.

4.2.8 Microsoft Corporation

Microsoft Corporation (Microsoft) is a leader in manufacturing software and operating systems developing, producing and supporting company (www.microsoft.com).

Microsoft believes that for the purpose of consistency, only one method of transition should be available upon adoption of the fair value based method of accounting for stock-based compensation expense. Though the company agrees with the requirement to present stock options related disclosure in interim financial statements, it does not support the suggestion to include disclosure in the "Summary of Significant Accounting Policies."

4.2.9 Credit Suisse Group

Credit Suisse Group (CSG) is a world-leading financial services company providing its clients advice in all aspects of finance around the world (www.credit-suisse.com).

In CSG's opinion, only one transition method should be allowed in order to ensure consistent expense recognition and, thus, comparability in the income statements of those companies, which chose to adopt the fair value method in SFAS 123. CSG suggests that FASB should maintain the prospective transition approach allowed by SFAS 123. CSG also emphasizes that option pricing models do not adequately reflect the true economic cost of employee stock options and therefore recommends FASB to address this issue in the Exposure Draft.

CSG considers quarterly disclosure provisions to be excessive. It would not provide useful information to users of financial statements as most stock-based compensation awards are granted on a yearly basis.

4.3 Review of Comment Letters Submitted on IASB Discussion Paper on Share-Based Payments

In this section we will present an overview of Comment Letters submitted to IASB with regard to the Discussion Paper on Share-Based Payments, which preceded ED 2. We would like to note that some of the issues, such as whether measurement date should be vesting date or grant date and some other issues, are not discussed in ED 2. However, we chose to consider the views of companies on these issues on order to evaluate whether respondents' opinion did in fact influence the standard setters when issuing ED 2.

From 311 Comment Letters submitted on the Discussion Paper by companies and organizations, we have selected the Comment Letters of six companies and four organizations. Dates of letters are given in parentheses.

Ericsson (2001)
The Swedish Institute of Authorised Public Accountants (FAR) (2000)
Merrill Lynch (2000)
The Shell Petroleum Company (2000)
DaimlerChrysler (2001)
Association of German Banks (2001)
Nokia (2001)
Barclays Bank (2000)
British Bankers' Association (2000)
European Commission (2001)

Where possible we selected the companies operating in the same industries as those, whose Comment Letters we reviewed on Exposure Draft SFAS 123 and SFAS 148.

Respondent descriptions are provided so the reader is made aware of the nature of their business, unless previously provided.

4.3.1 Ericsson

Ericsson is one of the world's largest suppliers of the mobile systems. It provides total solutions covering everything from systems and applications to services and core technology for mobile handsets (www.ericsson.com).

In its Comment Letter, Ericsson 1 states that the issue of share-based payments has a low priority for the company as long as U.S. GAAP rules only require disclosure of share-based compensation expense. Ericsson is reporting under Swedish GAAP and, since the company is also listed on NASDAQ, it makes the reconciliation to U.S. GAAP. Nevertheless, the company strongly recommends IASB "…not to go beyond the U.S. GAAP treatment."

The company agrees that where an observable price for stock options does not exist, an option pricing model should be used in order to estimate the fair value of stock option. It also adds that disclosure should be provided about the assumptions used when applying the option pricing model. It is especially relevant to the non-transferability feature of employee stock options.

The Discussion Paper proposes an alternative to use vesting date, service date or grant date to measure the fair value of options granted. Ericsson believes that grant date is an appropriate measurement date.

4.3.2 The Swedish Institute of Authorized Public Accountants (FAR)

FAR is the professional institute of authorised public accountants, approved public accountants and other professionals in the accountancy sector in Sweden. The Institute has a leading role in the development of the professional standards, education and information for accounting and auditing professionals in Sweden (www.far.se).

FAR generally agrees that there is an urgent need for similar accounting standards around the world for stock-based compensation expense recognition, as presently existing different treatment hinders the comparability of reported earnings.

In FAR's opinion, the issuing of stock options should be recognized in financial statements and result in a charge to the income statement. The fair value of the options granted is the proper measurement basis, but only if the fair value can be reliably estimated.

FAR believes that option pricing models should be applied when estimating the fair value of options granted. The assumptions used in option pricing models can be adjusted. Nevertheless, detailed disclosure should be provided with regard to the adjustments made. FAR emphasizes that one of the most important choices made when applying option pricing model is that of taking either contracted or expected life of the option into account. FAR considers that the contracted life should be used. Otherwise, the reasons for not using it should be disclosed.

In FAR’s opinion, the grant date is the most proper date for measuring the value of stock-based compensation expense. If there are more or less of vesting options than originally expected, the transaction amount should further be adjusted over the vesting period.

4.3.3 Merrill Lynch & Co., Inc.

Merrill Lynch & Co., Inc (Merrill Lynch) expresses its disappointment with IASB reviving the controversial issue of stock-based compensation expense when, in its opinion, the issue has already been debated and resolved in the United States. It emphasizes that the requirement of assigning a value to stock options and charging the expense to earnings would severely damage both

established and emerging companies in industries that rely heavily on stock awards to reward their employees.

Merrill Lynch believes that a successful compromise was reached in the United States by issuing SFAS 123. The necessary level of transparency was achieved via disclosure requirements. The pro forma effects of using the fair value based method of measuring stock-based compensation expense provide, in Merrill Lynch's opinion, sufficient information to analysts and investors. Therefore, it suggests that the existing methods allowed by SFAS 123 should be reflected in IASB proposal.

In case IASB continues with its requirement to apply the fair value based method, Merrill Lynch states that the grant date is the appropriate date for measuring stock-based transactions. The amount recognized should not be spread out over the vesting period, but charged to the income in full at the grant date.

Merrill Lynch opposes the application of option pricing models to measure the stock-based compensation expense as the estimated amount is not what is realizable to the employee. It believes the valuation using a modified option pricing model would result in an overstated expense in the financial statements.

4.3.4 The Shell Petroleum Company

The Shell Petroleum Company (Shell) is a leading global energy company, exploring, producing and refining oil and gas. It is also active in renewable energy, having growing businesses in power generation and a diverse portfolio of products in chemicals businesses (www.shell.com)

As a multi-national group, Shell favors the harmonization of accounting standards around the world. Therefore, it says that if the provisions of the Discussion Paper will not be recognized by other standard-setting bodies (and it doubts that FASB will require the mandatory adoption of fair value based method of accounting for stock-based compensation expense) it will put European companies in a more disadvantaged position.

While Shell admits that the issue of options can have an observable value, which might be used as the substitute for the value of services provided by employees, it also deems that the cost to the company is not necessarily the same as the economic value to the employee.

The company also doubts the ability of option pricing models to provide relevant valuation of stock options granted. In conclusion Shell states that

accrual of stock-based compensation expense in the period before business success and true option value is established could eliminate start-up capital and drive viable companies into bankruptcy.

4.3.5 DaimlerChrysler

DaimlerChrysler is one of the world's leading automotive, transportation and services companies. It produces passenger cars, commercial vehicles and offers financial and other services (www.daimlerchrysler.com).

In general, DaimlerChrysler agrees with the proposal of IASB for accounting for stock-based compensation. Stock options granted should be measured at fair value and should be charged to net income. However, the company says its final approval will depend on whether its competitors, both in the capital markets and in their business, will have to apply the same accounting rules for stock-based payments. If companies in the same line of business use different measurement methods, it will only end in the presentation of misleading results.

From the company’s point of view, the grant date would better reflect the value of the stock-based payments as this is the date when all parties agree to the contract and each party’s basis to agree is the market value at a grant date. If, subsequently, the number of shares that actually vest is greater or less than originally expected, there should not be any adjustments made to the transaction amount, so long as these changes do not occur during the vesting period.

4.3.6 Association of German Banks

The Association of German Banks represents the interests of the private commercial banks in Germany. The members of the Association are both small and big banks, banks operating worldwide and regional banks (www.german-banks.com).

The Association of German Banks does not agree with the proposed accounting for share-based payments. It proposes instead that the stock option plans not be recognized in financial statements until options are exercised. The reason for such treatment of stock option plans is that the issue of stock options to employees does not affect the entity itself, but the shareholders only. It does not result in any cash payments to employees, and the recognition of expense would be fictitious.

The proposals of IASB set in the Discussion Paper would lead to a considerable disadvantage for all companies applying International Accounting Standards compared to those companies, which prepare their financial statements in accordance with U.S. GAAP. Moreover, considering the complex structure of employee stock option plans, it will often be impossible to calculate the fair value of options granted. The Association therefore considers the intrinsic value based method as the only acceptable and reliable method of measuring the stock-based compensation expense.

4.3.7 Nokia

Nokia is the world leader in mobile communications industry. It is the leading supplier of mobile phones and mobile, fixed and broadband networks (www.nokia.com).

Nokia strongly opposes the proposal of recognizing stock-based compensation expense using the fair value based method. In the company's opinion "…it would be totally unacceptable for enterprises preparing their financial statements according to IAS to have to comply with more stringent requirements than others preparing according to high-quality sets of standards." Hence, the company states that the only acceptable solution would be a disclosure approach as in the United States.

However, if IASB decides to proceed with the application of fair value based method, Nokia present its opinion on the main issues. It believes that the grant date is the date when stock-based compensation expense should be recognized. Nokia agrees with the suggestion that option pricing models should be modified when using them to estimate the employee stock options.

4.3.8 Barclays Bank

Barclays Bank (Barclays) is one of the largest financial services groups in the United Kingdom. It offers both, retail and commercial banking services in and outside United Kingdom with a bias toward continental Western Europe (www.barclays.com).

Barclays does agree that share options issued to employees should be recognized in financial statements. The measurement basis for such transactions should be the fair value of the options granted. The application of option pricing models is justified in Barclays' opinion; however, the assumptions made should be adjusted in order to incorporate the special features of employee stock options. Further guidance with regard to option pricing models should be provided in order to ensure a consistent treatment.

Barclays supports the grant date as a proper measurement date since this is the date when company is valuing the services to be provided. Eventually the transaction amount should be adjusted, in Barclays' view, to take into account the actual number of options that vest.

4.3.9 British Bankers' Association

British Bankers' Association (BBA) is the leading trade association in the banking and financial services industry, which represents banks and other financial services firms in the United Kingdom. The members of the association are of both UK and non-UK origin (www.bba.org.uk/public).

BBA admits that there are good arguments for including a charge in the income statement when employee stock options are issued. However, it states that there is no actual outflow of resources for the company. Therefore, IASB should provide more justification for inclusion of this expense in the financial statements, instead of showing it as a disclosure in the footnotes.

The application of option pricing models to measure the stock-based compensation expense is also questionable in BBA's opinion. The value produced by such models can be extremely subjective, especially in the markets where similar options do not exist.

BBA does not support the use of vesting date as a measurement date. Instead, it would be appropriate to use the grant date. The transaction charge should then be spread over the service period in order to match the cost with benefits received.

4.3.10 European Commission

The European Commission (EC) fully supports IASB's attempt to find an internationally agreed approach to accounting for share-based payments. It stresses, though, the impact the accounting issues addressed in the Discussion Paper can have on the financial statements of many companies. In particular, it can have a material impact on a company's ability to pay dividends.

EC does not support the main conclusions presented in the Discussion Paper. It questions the statements that the grant of share options to employees is a cost to the company. It is only an opportunity cost, which is reflected by way of dilution. In fact, this opportunity cost is already shown in company accounts as a required disclosure. Hence, EC believes that the real debate should be focused on first, whether it is appropriate to recognize opportunity costs in the income statement and if so, whether it should be restricted to shares and options, and

second, if the current information about share-based transactions is inadequate for accounts to show a true and fair value.

4.4 Review of Comment Letters Submitted on Invitation to Comment "Accounting for Stock-Based Compensation: A Comparison of FASB Statement No.123, Accounting for Stock-Based Compensation and Its Related Interpretations, and IASB Proposed IFRS Share-Based Payment"

Responses to the Invitation to Comment "Accounting for Stock-Based Compensation: A Comparison of FASB Statement No. 123, Accounting for Stock-Based Compensation and Its Related Interpretations, and IASB Proposed IFRS Share-Based Payment" had to be submitted by February 1, 2003. Because of the timing and general unavailability of the letters, we could analyse only three Comment Letters released by the following organizations and published on their websites. The dates of their letters are given in parentheses.

The Investment Company Institute (2003)
The Biotechnology Industry Organization (2003)
The Committee on Corporate Reporting of Financial Executives International and the Financial Reporting Committee of the Institute of Management Accountants (2003)

4.4.1 The Investment Company Institute

The Investment Company Institute (Institute) is the national association of the American investment company industry. It was founded in 1940, its membership includes 8,935 mutual funds, 559 closed-end funds, and six sponsors of unit investment trusts. Its mutual fund members represent more than 90 million individual shareholders and manage approximately $6.4 trillion. The Investment Company Institute represents its members and their shareholders in matters of legislation, regulation, taxation, public information, economic and policy research, business operations, and statistics. The Institute seeks to enhance public understanding of the investment company business, to serve the public interest by encouraging adherence to the highest ethical standards by all segments of the industry, and to promote the interests of fund shareholders (www.ici.org/about_ici.html).

The Institute recommends FASB to move forward with a reconsideration of SFAS 123. The Institute expressed its belief that accounting standards should:

(1) require issuers to treat the fair value of stock options granted to employees to be recognized as expense in the income statement; and
(2) ensure uniformity in how stock options are valued for this purpose.

The Institute stated that mandatory expense treatment is necessary to ensure full and fair disclosure of issuers' results of operations and financial position. The Institute supports the IASB proposal to require issuers following International Accounting Standards to expense the fair value of stock options granted to employees.

The Institute made comments on the following issues:

Issuance, Forfeitures, and Attribution Methods

On the Invitation to Comment question whether the effect of forfeitures should be incorporated into the estimate of the fair value of options granted, the Institute believes that SFAS 123's approach, which excludes forfeitures from the estimate of the fair value of options granted, is the preferable approach. Requiring issuers to estimate future forfeitures and to incorporate that estimate into the option pricing model would enable them to "manage" the fair value of options granted and related compensation expense by adjusting their estimates. In addition, the IASB approach would not seem to allow issuers to adjust compensation expense for any variance between estimated and actual forfeitures. For these reasons, the Institute believes excluding the effects of forfeitures from the estimate of the fair value of options granted combined with adjustment of compensation expense based on actual forfeitures yields the most accurate results. The Institute expressed its opinion that analysts and investors are familiar with the Statement 123 approach and that adoption of the IASB approach may complicate their ability to estimate compensation expense and future earnings (www.ici.org/02_fasb_stock_option.html).

4.4.2 The Biotechnology Industry Organization

The Biotechnology Industry Organization (BIO) is the national trade organization representing the biotechnology industry, and represents more than 1,100 biotechnology companies, academic institutions, state biotechnology centres and related organizations in all 50 U.S. states. The biotechnology industry, like many other growth sectors of the economy, uses employee stock option plans that are very important to the continued growth of the industry.

Such plans are especially important as the industry continues to commercialise its products and needs to attract employees from other, more mature industries (www.bio.org/tax/letters/20030131.asp).

BIO’s primary concern with the Invitation to Comment is the use of the Black-Scholes Value for employee stock options. The biotechnology industry (and BIO's membership) is dominated by emerging growth companies that have highly volatile stocks, many with limited liquidity. In light of this, BIO does not support expense reporting of stock options in the income statement. Specifically, the Black-Scholes model was not designed and is inappropriate for valuing employee stock options. For volatile stocks, the model produces values that it believes are misleading to investors and other users of financial statements. Additionally, the Black-Scholes model does not take into account that employee stock options are not freely traded and cannot be exercised in many situations because of blackout periods. BIO continues to believe that current reporting choices provided by SFAS 123 are working and should continue. They say they would be happy to provide several examples of how the Black-Scholes Value, when applied to companies in their industry, can be very misleading to investors.

BIO expressed its opinion on the following issues:

Option Pricing Models / Valuation of Employee Stock Options

The accounting standard should require the use of an appropriate option-pricing model for footnote disclosure. The model used, including key assumptions and the basis for selecting a particular model, should be clearly disclosed in the footnotes. The Black-Scholes model often can produce misleading results for companies with stocks that are highly volatile and/or have limited liquidity. Under current guidance in SFAS 123 there is limited quality guidance for determining the volatility assumption and no consideration of adjustments in value for companies with thinly traded stocks. Adjustments need to be allowed for these factors to provide for a more accurate determination of fair value. Also, employee stock options are non-transferrable and subject to forfeiture, which reduces value. These factors are not considered in existing models, leading to an overstatement of value. In addition, BIO believes the standard should permit the use of new, appropriate option-pricing models as they are introduced.

Issuance, Forfeitures, and Attribution Methods

BIO sees merit to the approach in providing estimates for forfeitures at the date of grant that eliminate large adjustments that can occur under existing U.S.

Standards, since such an approach could result in overstating compensation expense for companies that are not mature and that have large unanticipated reductions in force.

BIO believes that the existing attribution method in SFAS 123 is the most appropriate and representationally faithful of the economics of stock-based compensation arrangements. BIO stated that the "unit-of-service" concept in the proposed IASB rule is overly complex, will prove difficult to track, and will not yield estimates that are more accurate than the straight-line or graded vested methods under SFAS123.

Disclosure

BIO continues to support improved disclosures that are meaningful to shareholders and users of the financial statements. The current concern is that the stock option disclosure could become too lengthy and complex for shareholders and other users of financial statements. So BIO supports the IASB's suggestion to provide additional disclosure surrounding key assumptions (volatility and vesting conditions).

4.4.3 The Committee on Corporate Reporting of Financial Executives International and the Financial Reporting Committee of the Institute of Management Accountants

The Committee on Corporate Reporting of Financial Executives International and the Financial Reporting Committee of the Institute of Management Accountants (the Committees) expressed their opinions on Invitation to Comment “Accounting for Stock-Based Compensation: A Comparison of FASB Statement No.123, Accounting for Stock-Based Compensation and Its Related Interpretations, and IASB Proposed IFRS Share-Based Payment” (www.fei.org/download/FEI_IMA_FAS123.pdf).

The Committees expressed their views on the following issues:

Issuance, Forfeitures, and Attribution Methods

The Committees agree with the FASB’s conclusion that an equity instrument is issued only when valuable consideration has been exchanged. The existence of vesting restrictions and the potential for forfeiture differentiate employee stock options from virtually any other equity instrument and support the view expressed in SFAS 123. The Committees, therefore, do not agree with the units of service model proposed in the IASB ED. In Committees' opinion, the underlying conceptual basis for the IASB attribution model is inconsistent: it is not meaningful to recognize an expense for options that never vest, as the IASB

requires. The Committees are also concerned about the possibility that expenses recognized under the units of service approach can actually exceed the fair value of options granted. These outcomes stretch the credibility of the overall model. The Committees believe that the principles underlying the IASB model should only be adopted if they are demonstrably better than SFAS 123.

Option Pricing Models/Valuation of Employee Stock Options

The Committees state that there is universal agreement among members of both Committees that standard option-pricing models significantly overstate the value of employee stock options and that adjustments are necessary to reflect the differences between traded options and employee stock options. There also is strong agreement that the adjustments provided for in SFAS 123 do not adequately reflect those differences. Furthermore, there has been little progress in the development of a robust valuation model for employee stock options following the issuance of SFAS 123 that would provide a reasonable basis for a prescriptive approach to measurement. The Committees note that most accounting standards provide only summary level guidance regarding fair value measurement. Given that no robust valuation theory exists for determining the fair value of employee stock options, the Committees believe that it would be inappropriate to provide highly prescriptive guidance in this area. If expense recognition is ultimately required for employee stock options in financial statements, the requirement should stop at the principles level by indicating that measurement should be at fair value. FASB and IASB should not mandate the use of a particular option pricing model and companies should be permitted to use professional judgment in deriving their best estimate of each of the relevant variables consistent with the fair value objective. If necessary, the standard could provide factors to consider in determining fair value, such as:

- The exercise price of the option
- The current price of the underlying security
- The expected life of the options, the period over which the options will actually be outstanding
- The anticipated risk-free interest rate for the period corresponding to the expected term of the option
- The expected future volatility of the underlying security
- Expected dividends
- The effect on value of the lack of transferability of the options
- The effect on value if the stock cannot be sold, once the option is exercised, because of a blackout period.

The quality of the assumptions used in option pricing models is critical determining an appropriate fair value.

The Committees solicited the views of valuation experts on the parameters that should form the basis for a fair value requirement and were advised that in order to estimate fair value, companies should have the ability to:

use the probability distribution of an option's lifetime, as estimated from historical data, rather than its expected value only;
employ a stochastic model for volatility, calibrated to historical data;
apply models other than standard geometric Brownian motion to describe the uncertainty in the temporal evolution of share prices into the future, provided empirical evidence can be produced that supports them.

If such adjustments were permitted, the Committees also would agree that it would be appropriate to provide disclosures that help investors understand the model that was used and the methodologies applied for determining the assumptions.

4.5 Overview of Company Reporting Practices

We have chosen ten companies to look into their stock based compensation accounting practise. We investigate their views expressed in the Comment Letters compared to what they do in practice. All the companies we are reporting on are included as a respondent in one of the Comment Letters categories. We do not include all the companies because eleven of them are the entities (The Boston Security Analysts Society, The Software & Information Industry Association, etc.) that represent their members' view but they do not practise stock based compensation accounting themselves; one company has bankrupted during the period 1993-2003 (LTV Steel) or two companies have merged (The Chase Manhattan Corporation and JPMorgan). We are looking at the latest available annual reports of the companies.

4.5.1 The Shell Petroleum Company

The philosophy of remuneration of Group Managing Directors in the Shell Petroleum Company (Shell) is to attract and retain highly experienced individuals and motivate them towards high-quality performance. The remuneration systems are therefore developed to reconcile the goals of senior staff to those of the company and shareholders. A significant proportion of remuneration packages is linked to actual performance.

Group Stock Option Plans are a means of long-term incentives. Shell grants stock options plans once per year in accordance with one of the Group Stock Option Plans. Since 1998 Shell granted stock options to executives for a ten-

year term. The vesting period is usually three years and 50% of the options are subject to various performance conditions.

In the Annual Report 2001 Shell states that the shares granted under Group Stock Option Plans are existing issued shares of the company. Hence, no dilution of shareholders' equity exists. The price at which shares can be bought (the exercise price) will not be less than the fair market value of shares at the grant date.

Shell does not show the stock option expense in the income statement. The Group Consolidated Financial Statements are prepared in accordance with Dutch GAAP. Shell stated in its Comment Letter that as long as the requirement to expense employee stock options is not universal, requiring European companies to expense them, will put them into more disadvantaged position. As there is no requirement to show the stock-based compensation expense measured at its fair value under Dutch GAAP, the company only provides the disclosure in the footnotes to the financial statements. However, in our opinion, there is an opportunity cost for the company. In 2001 the number of options exercised was 16,000 EUR. The exercise price was 48.92 EUR, while the market price at a date of exercise was 67.26 EUR.

In the United States, the subsidiary of Shell prepares its financial statements in accordance with U.S. GAAP. The company, however, does not apply the fair value based method of accounting for stock-based compensation expense. It only provides disclosure as required by SFAS 123. In the notes to the financial statements, it is simply written that the pro forma impact on net income and earnings per share calculated according to SFAS 123 requirements is not significant. Shell's reluctance to include employee stock-based compensation expense in the income statement can also be based on the company's distrust of existing stock pricing models.

4.5.2 Anheuser-Busch

Anheuser-Busch prepares its accounts in compliance with U.S. GAAP. In its Comment Letter, the company opposes the proposal to include employee stock-based compensation expense in the income statement since all necessary information is provided in the notes to financial statements. Following this statement, in the "Summary of the Significant Accounting Principles and Policies" of the annual report for year 2001, the company states that it accounts for employee stock option expense in accordance with APB 25, under which the company does not record any expense related to employee stock options in the income statement as options are always granted at a price equal to the market price on the grant date.

Following the requirements of SFAS 123, in Note 5 to the financial statements of the annual report in 2001, the company provides pro forma effects the stock options would have on the income statement had the employee stock-based compensation expense been recognized using the fair value based method. The difference between reported net incomes is quite considerable. Under APB 25, net income amounted to 1,704 million USD, while if the company recorded stock-based compensation expense using the fair value based method net income would be 1,635 million USD. In order to estimate the fair value of options granted, Anheuser-Busch uses the modified Black-Scholes option pricing model. The company emphasizes that it calculated the weighted average fair value of stock options granted applying the Black-Scholes model for SFAS 123 disclosure purposes. However, in reality, as company's employee stock options are not traded on an exchange, employees cannot derive any value from holding these plans unless there is an increase in market price of Anheuser-Busch stock.

4.5.3 SunTrust Banks, Inc.

SunTrust Banks', Inc. (SunTrust) financial statements are prepared in accordance with U.S. GAAP. With regard to accounting for employee stock-based compensation expense, it follows the provisions of APB 25, i.e., the company does not recognize compensation cost in accounting for its stock option plans. In the notes to the financial statements SunTrust provides disclosure of the pro forma effects of using fair value based method to account for stock-based compensation expense as required by SFAS 123. In the year 2000 the reported income of SunTrust amounted to 1,294 million USD. The pro forma net income would be 1,281 million USD. The weighted average value of options granted was calculated using the Black-Scholes option pricing model with modified assumptions.

4.5.4 Nokia

Nokia Group's accounts are prepared in accordance with Finnish Accounting Standards. In its Comment Letter, Nokia strongly opposed the proposal of including employee stock-based compensation expense in the income statement. Hence, in its Annual Report 2001 in the notes to financial statements Nokia provides extensive disclosure with regard to the issued stock option plans. It states the number of issued stock options, the categories the stock options are divided within the company, the subscription price of stock options, the number of stock options granted, exercised and forfeited. The company does not, however, provide any pro forma effects the stock option plans would

have on company's financial statements if they were measured at their fair value and shown as an expense in the income statement.

4.5.5 UBS Warburg Group

UBS Warburg Group financial statements are prepared in accordance with International Accounting Standards (IAS). Since UBS Warburg is also listed in the United States it provides a description in notes to financial statements of all the significant differences, which would arise if the annual accounts were presented in accordance withU.S.GAAP.

Even though, in the Comment Letter UBS Warburg agreed with the proposal to measure employee stock-based compensation expense at the fair value, under IAS the company records the stock-based compensation expense using the intrinsic value based method. In the 2001 annual report in the notes to financial statements, the company provides a wide disclosure of the share-based compensation plans offered to employees. The information provided includes the number of stock option plans granted and weighted average purchase price. As mentioned earlier, the company presents the major differences which would arise if the financial statements were prepared underU.S.GAAP. Further, in its notes, UBS Warburg gives the pro forma net income and earnings per share as if the company had adopted fair value based method of accounting for stock-based compensation expense.

4.5.6 The Coca-Cola Company

The Coca-Cola Company (Coca-Cola) strongly opposed the Exposure Draft "Accounting for Stock-Based Compensation" in 1993 underlining the main reason for such position – a lack of reliable and objective method for recognition of compensation costs. However, ten years later Coca-Cola is among the first companies which started to expense employee stock-based compensation plans, using a fair value method.

The company prepares its financial statements in compliance with U.S. GAAP. The company discloses in Note 12 "Restricted Stock, Stock Options and Other Stock Plans" of the annual report for year 2001 that Coca-Cola accounts for the employee stock-based compensation according to Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" and related Interpretations in accounting for employee stock-based compensation plans under which the company does not record any expense related to employee stock options in the income statement as options are always granted at a price equal to the market price on the grant date (www2.coca- cola.com/investors/ annualreport/2001/ pdf/ko_ar_2001_financials_ section.pdf).

Coca-Cola provides pro forma effects that employee stock options would have on the income statement if the company had adopted the fair value based method for measuring stock-based compensation costs. The difference between reported net income and after the impact of applying SFAS 123 is significant and amounted to 0,202 million USD as of December 31, 2001. Under APB 25 net income amounted to 3,969 million USD, while if the company recorded stock-based compensation expense using the fair value based method net income would be 3,767 million USD.

In July 2002, Coca Cola announced that it would expense the cost of all stock options the company grants, beginning with options to be granted in the fourth quarter 2002. Doug Daft, chairman and chief executive officer, described some reasons for such decision: "Our management's determination to change to the preferred method of accounting for employee stock options ensures that our earnings will more clearly reflect economic reality when all compensation costs are recorded in the financial statements".(http://www2.coca-cola.com/presscenter/nr_20020714_atlanta_ stock_ options.html).

The company decided to adopt the fair value based method of recording stock options contained in SFAS 123, which is considered the preferable accounting method for stock-based employee compensation. All future employee stock option grants will be expensed over the stock option vesting period based on the fair value at the date the options are granted. The company expects minimal financial impact in the current year from the adoption of this accounting methodology. If the Board of Directors grants options in 2002 at a similar level to 2001, the expected impact would be approximately $0.01 per share for 2002.

Coca-Cola underlines that an important advantage of the expensing policy that the company is adopting is that it puts the various forms of options on an equal accounting footing, eliminating any bias that may have existed to issue the kind that do not need to be expensed. With this new policy, the company will be able to design whatever kind of options it believes will both best motivate employees and more align their interests with those of share owners, without regard for the options' accounting effects. The policy also puts options on an equal footing with other kinds of compensation and should allow the company to design compensation packages that make optimum sense (http://www2.coca-cola.com/presscenter/nr_20020714_atlanta_stock_options.html).

4.5.7 Merrill Lynch & Co., Inc.

Merrill Lynch & Co., Inc. (Merrill Lynch) is among the majority of companies which opposed the Exposure Draft "Accounting for Stock-Based Compensation" in 1993 and still does not agree with accounting for employee stock-based compensation plans using the fair value based method. The company states that there is no objective method to estimate the fair value of employee stock options.

Merrill Lynch accounts for employee stock-based compensation in accordance with the intrinsic value-based method in APB 25, rather than the fair value-based method in SFAS 123. Compensation expense for stock options is not recognized since Merrill Lynch grants stock options with no intrinsic value. Compensation expense related to other stock-based compensation plans is recognized over the vesting period. The unamortized portion of the grant value for such plans is reflected as a reduction of Stockholders' Equity in Unamortized employee stock grants on the Consolidated Balance Sheets.

Pro forma compensation expense associated with option grants is recognized over the vesting period. Merrill Lynch discloses the difference between the reported net earnings (loss) and net earnings (loss) after applying SFAS 123, which amounts to 854 million U.S. dollars. Under APB 25, net earnings amounted to 573 million USD, while if the company recorded stock-based compensation expense using fair value based method net earnings (loss) would be (281) million USD.

4.5.8 Intel Corporation

In 1993 Intel Corporation opposed the Exposure Draft "Accounting for Stock-Based Compensation". The company still disagrees with the suggestion to expense the employee stock-based compensation plans and follows APB 25 in accounting for its employee stock options because the alternative fair value accounting provided for under SFAS 123 requires the use of option valuation models that were not developed for use in valuing employee stock options. Under APB 25, because the exercise price of the company's employee stock options equals the market price of the underlying stock on the date of grant, no compensation expense is recognized in the company's financial statements.

Pro forma information is required by SFAS 123 as if the company had accounted for its employee stock options under the fair value method. So the company provides the information on the fair value of options granted in 2001 estimating the value of employee stock options at the date of grant and using the Black-Scholes option-pricing model.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the options' vesting periods. Net income for the year 2001 after applying SFAS 123 amounted to 254 million U.S.dollars while the reported net income amounted to 1,291 million U.S.dollars.

Intel Corporation emphasizes that the Black-Scholes option valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility. Because the company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in the opinion of management, the existing models do not necessarily provide a reliable single measure of the fair value of employee stock options.

4.5.9 JPMorgan Chase & Co

In 1993 JPMorgan Chase & Co (JP Morgan Chase) opposed the Exposure Draft "Accounting for Stock-Based Compensation" as not improving the quality and credibility of financial statements. However, the company started expensing employee stock options from January 2003.

JPMorgan Chase accounts for its employee stock-based compensation plans under the intrinsic value based method in accordance with APB 25. There is no expense recognized for stock options, as they have no intrinsic value on the grant date. Following the requirements of SFAS 123, the company provides pro forma effects the stock options would have on the income statement had the employee stock-based compensation expense been recognized using the fair value based method (www.ar.jpmorganchase.com/ar2001/audited/n19.html).

JPMorgan Chase stated that if the company had adopted the fair value based method pursuant to SFAS 123**,** options would be valued using the Black-Scholes model. The higher impact from applying SFAS 123 in 2001 reflects the lower level of net income and increased options granted during 2001. The difference between net income as reported and after the impact of applying SFAS 123 is significant and amounted to 0,622 million USD. Under APB 25 net income amounted to 1,694 million USD, while if the company recorded stock-based compensation expense using the fair value based method, net income would be 1,072 million USD. JPMorgan Chase stated that it used weighted-average grant-date fair value and assumptions to value the options using the Black-Scholes model for equity awards granted.

JPMorgan Chase announced that the company is going to start to expense all stock options granted to employees beginning January 2003. This will have a somewhat larger impact on JPMorgan Chase than on some other firms because the company is one of the few companies that offer an options program to almost all employees. (www.jpmorganchase.com/cm/cs?pagename=phase/Href&urlname=jpmc/about/facts/ceo_email).

4.5.10 BankAmerica Corporation

In 1993 BankAmerica Corporation (BankAmerica) did not support the Exposure Draft "Accounting for Stock-Based Compensation". The corporation still does not agree to expense employee stock options and applies the provisions of APB 25 in accounting for its employee stock option plans. In accordance with SFAS 123, the company provides disclosures as if the company had adopted the fair value based method of measuring outstanding employee stock options in 2001. The difference between reported net income and after the impact of applying SFAS 123 is significant and amounted to 0,351 million USD as of December 31, 2001. Under APB 25 net income amounted to 6,792 million USD, while if the company recorder stock-based compensation expense using the fair value based method net income would be 6,441 million USD (www.s1.mobular.net/ccbn/7/27/29/).

For estimating the fair value of granted employee stock options on the grant date, the company used weighted-average grant-date fair value and assumptions to value the options using the Black-Scholes option pricing model. Compensation expense under the fair value based method is recognised over the vesting period of the employee stock options.

BankAmerica highlighted that the Black-Scholes option pricing model was developed to estimate the fair value of traded options, which have the different characteristics than employee stock options and changes to the subjective assumptions used in the model can result in materially different fair value estimates.

5 Analysis

In this chapter, we analyse the results of our study of the various Comment Letters presented in Chapter 4. We present the analysis under these subheadings in Section 5.1 in order to better summarize the large amount of empirical evidence: SFAS 123, SFAS 148, IASB Discussion Paper, and Invitation to Comment. We also summarize important ideas and practices relevant to actual practice of companies, as obtained from their annual reports and various news releases.

5.1 General

Even if the positive effect on companies of employee stock based compensation plans is not a universally shared belief, the wide use of stock options as a means of compensating employees has a number of well-grounded reasons. Stock options are said to reconcile the interests of employees with those of shareholders. They facilitate job creation, especially in information technology industries, and help corporations to cope with tight labour markets. Companies perceive stock options as a more advantageous way of remunerating employees since such plans do not result in actual cash outflows from the company. Via aligning the interests of employees and shareholders, who are two major stakeholder groups within a company, an improved corporate performance might be achieved. However, there seem to be as many opponents of stock options as there are proponents of them. It is believed that the broad use of stock options might significantly increase the company's shareholder value over a period of time. If the company, however, is performing worse than other companies within the industry, issuing stock options may be negatively viewed by other stakeholders.

The introduction of SFAS 123 by FASB and the issuance of Exposure Draft 2 by IASB were natural flows of events. Though the use of stock option plans is constantly growing, there is no uniform standard as to how to account for them. In fact, in Europe a standard does not exist at all (Levinsohn, 2002). FASB made an attempt to propose a fair value based method of accounting when it issued its Exposure Draft in 1993. However, this proposal was defeated by strong lobbying. Companies viewed it as a threat to their good results reflected in income statements. The business community, in general, strongly disagrees with fair value based method and opposes stock option compensation expense to be deducted from income. In our opinion, their reluctance to apply fair value based method is based on their primary concern that reduced earnings will negatively influence the share price.

IASB addressed the issue for the first time when it published a Discussion Paper on Share-Based Payments in year 2000. Its proposal to measure share-based compensation expense at fair value was not very well received in Europe as well. The absence of a standard requiring the use of the fair value based method of accounting for stock-based compensation leaves room for companies to omit the presentation of any expense related to stock options. Such is the case with Shell, for example, which does not provide any pro forma effects of applying fair value based method stating that the differences between the intrinsic value and fair value are insignificant.

5.2 Opinions on Stock-Based Compensation

5.2.1 SFAS 123

We have analysed ten Comment Letters on the Exposure Draft "Accounting for Stock-Based Compensation" issued by FASB in 1993. The significant majority (nine Comment Letters) opposed the Exposure Draft. And only one company in its Comment Letter totally supported the FASB Proposal. Other companies stated that proposed accounting rules would not enhance the overall usefulness and reliability of the financial statements and would provide a result that is less meaningful to the users of financial statements than the current rules. It was stated that the Exposure Draft proposed rules would result in confusion, inconsistency, and inaccuracy in corporate financial reporting and would reduce comparability of financial statements. The proposed changes would require a lot of implementation effort compared with the benefit.

The main issues recurring in basically every Comment Letter we reviewed included the following:

Measurement Date

The majority of companies supported the Exposure Draft position that the stock price at the grant date should be used to measure compensation cost.

Measurement Method

The majority of companies opposed the fair value based method and disagreed with the recognition of compensation expense because of lack of a reliable and objective measurement method. Existing option pricing models are quite subjective and do not produce a reasonable or relevant value for employee stock options because of big differences between traded options and non-traded employee stock options; such differences include the nontransferability, the forfeitability of employee stock option, their long-term exercisability, the requirement of continued employment to exercise the options, future stock

price volatility, differences in vesting schedules, and changes in market price which are unrelated to company performance.

Some companies suggested using the minimum value method for employee stock option valuation. This method could reduce significant number of adjustments. It is more precise and accurate than the fair value method. The fair value calculation is much more judgmental and complex than the minimum value calculation.

Attribution Period

The companies concurred that the period from the grant date to the vesting date would be the appropriate period for recognising employee stock options compensation costs.

Disclosure

All the analysed companies agreed that disclosure could be an alternative to compensation expense recognition. They believed that disclosures were the proper way of informing financial statement users.

5.2.2 SFAS 148

By introducing SFAS 148, FASB made another attempt to encourage companies to adopt fair value based method of accounting for stock-based compensation expense. The two additional transition methods, provided in SFAS 148, are expected to assist companies in the transfer from the intrinsic to the fair value based accounting method. However, when reading Comment Letters, we realized the introduction of two additional alternatives for transition did not, in fact, make the issue more unambiguous. Most of the companies, i.e. six out of nine, whose Comment Letters we reviewed, expressed their concern about having several transition alternatives. In their opinion, it will only further impair the comparability of financial results. Most of the respondents support the application of only one transition method, full restatement method in most cases, as all necessary information is already available.

It appeared that companies view the introduction of two additional transition methods from different perspectives. On one hand, some of them perceive it as a way to bring more transparency and comparability to the reported results. On the other hand, some of the responding companies emphasized that having multiple choices in transition methods would only generate more confusion among investors and would further damage the comparability. Yet another viewpoint expressed in the Comment Letters was that the comparability is

already significantly impaired, and thus, it will not harm having three alternatives with regard to transition methods. However, having three alternative methods of transition can motivate more companies to adopt fair value based method.

FASB's proposal of placing the disclosure of stock-based compensation expense in the "Summary of Significant Accounting Policies" was not supported by any of the responding companies. Overall, the opinion conveyed in Comment Letters was that disclosure should be provided in footnotes to financial statements. One of the reasons given was that placing this disclosure in the " Summary of Significant Accounting Policies" would raise it over other disclosures that are not justified. The users of financial statements should be able to decide themselves which disclosure deserves priority. It seems that the effort of FASB is aimed at focusing the financial statements users' attention on this disclosure, while companies' effort is concentrated on hiding it.

5.2.3 IASB Discussion Paper on Share-Based Payments

The main issues recurring in basically every Comment Letter we reviewed included the following:

- Whether the intrinsic or the fair value method should be used to measure stock-based compensation expense,
- If the fair value is to be used, how it should be measured,
- Which date is the most appropriate measurement date.

The majority of companies stress the need for a uniform accounting standard dealing with stock-based compensation expense recognition. They oppose IASB's proposal to deduct stock-based compensation expense from income unless the same treatment of stock options will be adopted elsewhere, especially in the United States. It seems as if some European companies would be more willing to adopt fair value based accounting method for stock options if this was mandatory for all companies in major world markets. Merrill Lynch, however, states that the compromise achieved in the United States is rather successful. Therefore, it proposes IASB to simply adopt the same treatment of stock option expense.

As there is no comprehensible theoretical framework of defining whether employee stock options are an expense for companies or not, there is also no agreement on this issue in practice. Those companies, which disagree with fair value based method of accounting, mostly provide one common reason, i.e. stock options do not affect the company itself, but the shareholders only, and there is no actual cash outflow for the company.

In our opinion, more companies would favour the fair value based method if there were reliable methods of measuring this value. All of the responding companies marked the absence of a trustworthy way to measure fair value of the stock options granted. Not a single company seems to be satisfied with existing option pricing models. They find them to be inappropriate for valuation of employee stock options. It is often underlined that assumptions used in the Black-Scholes and binominal option pricing models have to be modified when applying them to employee stock options. The modifications made would be company-specific and rather subjective. Hence, the ultimate results would be incomparable across companies. Providing disclosure about the assumptions made when using option pricing models would give deeper insight into how companies calculated stock option expense. But even extensive disclosure does not eliminate the necessity of introducing updated and more comprehensible and employee stock options specific models to measure stock-based compensation expense.

As for the date of measuring the stock-based compensation expense, all responding companies agreed that grant date is the most appropriate as this is the date when all parties involved agree on the transaction and its value.

5.2.4 Invitation to Comment

The main issues recurring in basically every Comment Letter we reviewed included the following:

Issuance, Forfeitures, and Attribution Methods

Some companies disagreed with the units of service model proposed in the IASB ED because of inconsistency of a conceptual basis for the IASB attribution model. The concern was also expressed about the possibility that expenses recognized under the units of service approach can actually exceed the fair value of options granted. These outcomes stretch the credibility of the overall model.

To the question of whether the effect of forfeitures should be incorporated into the estimate of the fair value of options granted, companies believed that Statement 123's approach, which excludes forfeitures from the estimate of the fair value of options granted, is the preferable approach. Requiring issuers to estimate future forfeitures and to incorporate that estimate into the option pricing model would enable them to "manage" the fair value of options granted and related compensation expense by adjusting their estimates. Furthermore, the IASB approach would not allow issuers to adjust compensation expense for

any variance between estimated and actual forfeitures. In addition, the proposed IFRS is overly complex, will prove difficult to track, and will not yield estimates that are more accurate than the straight-line or graded vested methods under Statement 123.

Option Pricing Models / Valuation of Employee Stock Options

The accounting standard should require the use of an appropriate option-pricing model for footnote disclosure. The model used, including key assumptions and the basis for selecting a particular model, should be clearly disclosed in the footnotes. The Black-Scholes model often can produce misleading results for companies with stocks that are highly volatile and/or have limited liquidity. According to SFAS 123, there is limited quality guidance for determining the volatility assumption and no consideration of adjustments in value for companies with thinly traded stocks. Adjustments need to be allowed for these factors to provide for a more accurate determination of fair value. Employee stock options are non-transferrable and subject to forfeiture, which reduces value. These factors are not considered in existing models, leading to an overstatement of value.

Companies underlined that FASB and IASB should not mandate the use of a particular option pricing model and companies should be permitted to use professional judgment in deriving their best estimate of each of the relevant variables consistent with the fair value objective.

Companies suggested that in order to estimate fair value, companies should have the ability to use the probability distribution of an option's lifetime, as estimated from historical data, rather than its expected value only; employ a stochastic model for volatility, calibrated to historical data; apply models other than standard geometric Brownian motion to describe the uncertainty in the temporal evolution of share prices into the future, provided empirical evidence can be produced that supports them.

If such adjustments were permitted, the companies also would agree that it would be appropriate to provide disclosures that help investors understand the model that was used and the methodologies applied for determining the assumptions.

Disclosure

Companies expressed their views that improved disclosures are meaningful to shareholders and users of the financial statements. The current concern is that the stock option disclosure could become too lengthy and complex for

shareholders and other users of financial statements. Some companies supported the IASB's suggestion to provide additional disclosure surrounding key assumptions (volatility and vesting conditions).

5.2.5 Practice of Accounting for Stock-Based Compensation Expense

When looking at the annual reports of companies and the methods used to measure stock-based compensation expense, we found that the vast majority of companies choose the intrinsic value based method. Two companies' practise contradicts the opinions expressed in their Comment Letter. UBS Warburg Group, for example, totally agrees in its Comment Letter that stock options meet all expense recognition criteria and should therefore be deducted from income. The company advises FASB to endorse the application of fair value based method as a mandatory. It would only be natural to assume that UBS Warburg Group uses fair value based method to value employee stock options. Nevertheless, while looking into company's financial reports we found that it applies the intrinsic value based method and only provides pro forma effects of using the fair value based measurement. In 1993 the Coca-Cola Company opposed the Exposure Draft SFAS 123. However, it was one of the first companies who started expensing employee stock options.

Despite the efforts made by FASB in the United States to encourage companies to adopt the fair value based method, companies do not seem to be eager to adopt it. However, Coca-Cola, American Express, Bank Of America, Computer Associates, Washington Post, Amazon.com and scores of other companies have voluntarily decided to expense stock options (www.fed.org/onlinemag/sep02/trends.htm). It is perhaps significant that most of the companies that have publicly announced a decision to expense stock options are not among those that have larger, more significant and broad-based stock option programs. The decision to expense, therefore, is relatively less costly for them. Conversely, the companies that have announced a decision to continue with current policy (not to expense options) are those with especially large and broad based stock option programs.

Adoption of the fair value based method is even less likely to spread in Europe, where there is no current existing standard for accounting for stock-based compensation (Levinsohn, 2002). The most commonly used way is simply providing disclosure of pro forma effects of applying the fair value based method. Companies seem to deem it to be sufficient. The depth of disclosure varies from company to company. American companies disclose pro forma income statement and earnings per share as required by APB 25. The European companies we reviewed tend to limit their disclosure to general information

about the stock option plans offered by the company, number of stock options granted, exercised and forfeited.

The number of companies expensing or planning to expense employee stock option costs has increased slowly. From our analysed companies just two companies: Coca-Cola Company and JP Morgan Chase started expensing the cost of employee stock options.

The Coca-Cola Company stated that the main reason for such decision was to assure the most accurate financial reporting. Coca-Cola concluded that the company's earnings would more clearly reflect economic reality when those costs were recorded in their financial statements.

According to the Coca-Cola Company, one of the difficulties that companies faced in moving to the fair value based method was the difficulty of determining the actual amount to be recorded as an expense. Under the FASB rules, companies must determine the "fair value" of stock-based compensation. Although six key variables are identified (stock price, exercise price, risk-free interest rate, expected life of the option, expected stock price volatility and expected dividends), no specific model is mandated.

The main advantages of expensing stock options are the benefit it provides to investors—a better reflection of the company's economic reality (increase in investors' confidence in corporations) and more comparability among companies with stock option plans. Those benefits might help companies to design whatever kind of options companies believe will both best motivate employees and more align their interest with those of shareowners, without regard for the options' accounting effects.

6 Concluding Discussion

The purpose of this chapter is to summarize the evidence collected and give a short and clear answer to our research question: What is the opinion of the business community on the issue of expensing stock-based compensation plans and what arguments are presented pro/con?

6.1 Conclusions

As we stated earlier in this thesis the issue of stock-based compensation expense measurement and recognition in the income statement has been discussed for many years by many interested parties: IASB, FASB and the business community, i.e. companies, investors, accountants and professional organizations. We focused our attention on the existing and proposed standards of FASB and IASB and the Comment Letters of a number of companies and organizations in order to see what existing FASB standards require, what IASB intention was when issuing Exposure Draft 2 and what business enterprises' opinion is with regard to the existing and proposed standards. In addition, we looked into how companies deal with employee stock option expense recognition in practice.

While studying Comment Letters and companies' opinion regarding the issue of expensing employee stock-based compensation plans, we found that majority of the companies do not favour the notion of this expense recognition in the income statement. They present a variety of reasons for this position, which we summarize as follows:

- Granting employees stock options does not result into actual cash outflow for the company. As there is no actual cash outlay, this compensation does not meet the criterion of expense.
- Fair value of stock-based compensation cannot be reliably measured as there are no trustworthy employee stock option pricing models. Existing option pricing models would not provide an objective result unless the underlying assumptions are modified.
- If the fair value based method of accounting for employee stock option plans is be adopted, it will impair the comparability of financial results across companies.
- Expensing employee stock options will reduce earnings, which might lead to the fall in share prices.

However, there are a number of companies and professional organizations, which support the idea of expensing employee stock option plans. The core arguments presented in favour of expense recognition are as follows:

Even though there is no actual cash outlay for companies, when they issue employee stock options, the granted stock options still represent a valuable consideration to employees. The benefits obtained by employees result in an expense regardless of whether consideration is given in cash or other goods or services.

Considering that companies have tax deductions when options are sold after satisfying the holding period, it would only be fair to show the stock-based compensation expense in the income statement.

Employee stock options might result in actual cash expense if, after employees exercise their stock options, companies repurchase their shares in the market in order to keep the constant number of outstanding shares.

Deducting the stock-based compensation expense from income would provide a more realistic picture of companies' economic position to investors.

Despite the fact that the proposal to expense employee stock option plans first appeared in 1993, when the Exposure Draft preceding SFAS 123 was issued, only two companies, in our study, the Coca-Cola Company and JPMorgan Chase & Co. have actually started expensing employee stock option plans. We also came to the conclusion that many of the responding companies would adopt the fair value based method of accounting for stock-based compensation expense if the uniform standard existed around the world and if there were more reliable employee stock option pricing models developed. However, it seems that unless it becomes mandatory to expense stock-based compensation, companies will follow the practice of only providing disclosure with regard to it.

FASB and IASB held a joint meeting in Norwalk, Connecticut, USA on September 18, 2002, where they signed a Memorandum of Understanding. In this Memorandum FASB and IASB agreed to adopt compatible, high-quality solutions to existing and future accounting issues worldwide (www.fei.org/download/2002pr16.pdf). Despite the Memorandum, there is little convergence as yet on the subject of treatment of stock-based compensation plans. FASB still permits the intrinsic value based method of accounting for employee stock-based compensation expense, which often does not result in an income statement expense. IASB, on the other hand, proposes only a fair value based method, inevitably resulting in an income statement expense. It is a matter of importance to all stakeholders whether harmonization effect will resolve the existing differences.

6.2 Suggestions for Further Research

While working on this thesis, the issue of expensing stock-based compensation was continuously discussed in academic journals and newspapers. The topic is vital and there are issues, which we did not cover in this thesis.

First of all, IASB has not issued the standard on accounting for share-based payments yet. The period for submission of Comment Letters on ED 2 will be over on March 7, 2003. It would be of paramount interest to study the final standard and its implications for companies.

Another interesting study could be done with regard to U.S companies, which changed from using the intrinsic value based method to the fair value based method. The reasons for change, transition methods selected and the results of the change could lead to some interesting and valuable conclusions.

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