

THE EFFECT OF ESTIMATES IN FINANCIAL STATEMENTS

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DISSERTATION SUBMITTED IN ACCORDANCE WITH THE
REQUIREMENTS FOR THE DEGREE

MAGISTER IN ACCOUNTING

IN THE FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES
(CENTRE FOR ACCOUNTING)

AT THE

UNIVERSITY OF THE FREE STATE

STUDY LEADER: PROF. HA VAN WYK

BLOEMFONTEIN

MAY 2008

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LIST OF DEFINITIONS

Core definition:

Accounting estimates: An approximation of the amount of an item in the absence of a precise means of measurement (IAASB/PAAB 2006 – ISA 540: par. 3).

Creative accounting: Creative accounting practices as all steps including the aggressive choice and application of accounting principles, fraudulent financial reporting, and any steps taken toward earnings management or income smoothing (Mulford & Comiskey 2002:3).

Earnings management: The manipulation of earnings toward a predetermined target (Mulford and Comiskey 2002:3).

Other definitions (in alphabetical order):

Accounting estimate hits: The words that have been used in the electronic search were “estimate”, “estimated”, “estimates”, “estimating”, “estimation” and “estimations”. The number of hits is an indication of the number of paragraphs in IFRSs, which contain any of the above-mentioned keywords. If more than one of the above mentioned keywords is found in a paragraph, the number of hits will be indicated as one. The hits also include hits within the Basis for Conclusions and Implementation Guidance, which accompanies some IFRSs but do not form part of the specific IFRSs.

Accounting Practice Board (APB): A body consisting of a wide spectrum of representative role-players in the South African economy that approves Standards of Generally Accepted Accounting Practice (GAAP) and of recommended accounting practice (Vorster *et al.* 2005:11).

Accrual basis: The effects of transactions and other events are recognised when they occur (and not as cash or its equivalent is received or paid) and they are recorded in the accounting records and reported in the financial statements of the periods to which they relate. Financial statements prepared on the accrual basis

inform users not only of past transactions involving the payment and receipt of cash but also of obligations to pay cash in the future and of resources that represent cash to be received in the future” (IASB/SAICA 2006 - Framework (AC 000): par. 22).

Change in accounting estimate: A change in accounting estimate is an adjustment of the carrying amount of an asset or a liability, or the amount of the periodic consumption of an asset, that results from the assessment of the present status of, and expected future benefits and obligations associated with, assets and liabilities. Changes in accounting estimates result from new information or new developments and, accordingly, are not corrections of errors (IASB/SAICA – IAS 8 (AC 103): par. 5).

Cookie jar reserves: Reserves set aside to cover the estimated cost of future events (Kokosza 2003:64).

Corporate reporting supply chain: The preparation and use of financial statements relies on a number of groups and individuals involved in the assembly, preparation and communication of financial information. The “Corporate Reporting Supply Chain” include standard setters, company executives, board of directors, audit committees, internal and independent auditor’s information distributors, third party analysts and investors and other stakeholders (DiPiazza Jr. and Eccles 2002:11).

Fair value: The amount for which an asset could be exchanged, a liability settled, or an equity instrument granted could be exchanged, between knowledgeable, willing parties in an arm’s length transaction (IASB/SAICA – IFRS 2: Appendix A).

Generally Accepted Accounting Practice (GAAP): Standards published by the South African Institute of Chartered Accountants, after approval by the APB (Vorster *et al.* 2005:5).

Internal control: The process designed and affected by those charged with governance, management and other personnel to provide reasonable assurance about the achievement of the entity's objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations. Internal control consists of the following components (AASB/SAICA 2004 – Glossary of Terms):

- the control environment;
- the entity's risk assessment process;
- the information system, including the related business processes, relevant to financial reporting, and communication;
- control activities; and
- monitoring of controls."

International Accounting Standards Board (IASB): A body who is committed to developing, in the public interest, a single set of high quality, global Accounting Standards that require transparent and comparable information in general purpose financial statements. In pursuit of this the IASB cooperates with national accounting standard-setters to achieve convergence in accounting standards around the world (Vorster *et al.* 2005:11).

Materiality: Information is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements. Materiality depends on the size of the item or error judged in the particular circumstances of its omission or misstatement. Thus, materiality provides a threshold or cut-off point rather than being a primary qualitative characteristic which information must have if it is to be useful (AASB/SAICA 2004 – Glossary of Terms).

Professional skepticism: The practitioner makes a critical assessment, with a questioning mind, of the validity of evidence obtained and is alert to evidence that contradicts or brings into question the reliability of documents or representations by

the responsible party (International Framework for Assurance Engagements par. 40).

Securities and Exchange Commission (SEC): A federal agency that administers securities, legislation, including the Securities Acts of 1933 and 1934. Public companies in the United States must register their securities with the SEC and file with the agency quarterly and annual financial reports (Mulford and Comiskey 2002:52).

Whistle blowing: Whistle blowing is the disclosure by organisation members (former and current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organisations that may be able to affect action (Near and Miceli (as quoted by Rezaee 2002:104)).

Widely held companies: A company is widely held if (Companies Act section (6) (a) SAICA Legislation Handbook 2007/2008:11):

- its articles provide for an unrestricted transfer of its shares;
- it is permitted by its articles to offer shares to the public;
- it decides by special resolution to be a widely held company; or
- it is a subsidiary of a company described in the above.

LIST OF ABBREVIATIONS

ACFE's	Association of Certified Fraud Examiners
APB	Accounting Practice Board
CA	Chartered Accountant
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIDB	Construction Industry Development Board
COSO	Committee of Sponsoring Organizations
DTI	Department of Trade and Industry
EA	External Auditor
FASB	Financial Accounting Standards Board
FRIP	Financial Reporting Investigations Panel
GAAP	Generally Accepted Accounting practice
IASB	International Accounting Standards Board
IASC	International Accounting Standards Committee
IFRIC	International Financial Reporting Interpretations Committee
IFRSs	International Financial Reporting Standards
ISA	International Standards on Auditing
SAICA	South African Institute of Chartered Accountants
SEC	Securities and Exchange Commission
SIC	Standards Interpretation Committee
UK	United Kingdom
USA	United States of America
XBRL	Extensible Business Reporting Language

SUMMARY

The International Financial Reporting Standards (IFRSs) requires a number of accounting estimates for the preparation of financial statements. The purpose of this study is to establish the effect of estimates in financial statements.

The possible increases in required accounting estimates in the IFRSs are examined by comparing the IFRSs of 2003 to 2006. With this comparison it is established that the requirements of the IFRSs for fair value accounting is mainly responsible for the increases in allowed accounting estimates. The IFRSs of 2006 is examined to establish the frequency of use of estimates in financial statements. In order to get a better picture of the frequency of use of accounting estimates in financial statements, a list of allowed accounting estimates for each of the components on the Balance Sheet (also referred to as the "statement of financial position") has been compiled. It is concluded that the components on the balance sheet are to a significant extent influenced by accounting estimates.

The literature on earnings management and creative accounting are examined to determine if there is any risk that accounting estimates could be used to manipulate financial statements. This gives an indication of the reliability of accounting estimates within financial statements. It is concluded that the difference between fair presentation and creative accounting seems to be the intention of management which is difficult to assess.

The "corporate reporting supply chain" has some responsibilities to prevent and detect creative accounting practices and fraud. These responsibilities can limit the risk that accounting estimates may be used in creative accounting and financial statement fraud. In the wake of some financial disasters, these checks and balances should restore public trust in financial reporting.

An empirical study is performed on five companies that form part of the Construction and Materials sector of the JSE to establish the effect of estimates on their financial statements. The study indicated that:

- the average percentages of assets, including cash and cash equivalents, of the five companies affected by accounting estimates are 60% for 2004, 60% for 2005 and 59% for 2006. If cash and cash equivalents are excluded from the calculation of assets affected by accounting estimates, the average percentages are 72% for 2004, 77% for 2005 and 76% for 2006;
- there is an increase in the number of “estimate” hits from 2004 to 2006 in the financial statements of the five companies in the empirical group; and
- the disclosure provided on key sources of estimation uncertainty is however, limited.

A number of recommendations are made to limit the risk that accounting estimates could be used for creative accounting purposes. The negative effect of the use of accounting estimates in financial statements is a loss of reliability. The positive effect of the use of accounting estimates in financial statements is that of relevance.

KEY WORDS:

Accounting estimates, creative accounting, corporate reporting supply chain, earnings management and fair value.

OPSOMMING

Met die voorbereiding van finansiële state word 'n aantal rekeningkundige ramings deur die Internasionale Standaard vir Finansiële Verslagdoening (IFRSs) verlang. Die doel van die studie is om die effek wat ramings in finansiële state het, te bepaal.

Die moontlike toename in toegelate rekeningkundige ramings in die IFRSs is ondersoek deur die IFRS van 2003 tot 2006 met mekaar te vergelyk. Met hierdie vergelyking is daar vasgestel dat die toename in toegelate rekeningkundige ramings verband hou met billike waarde rekeningkunde wat deur die IFRSs verlang word. Die IFRSs van 2006 is ondersoek om vas te stel hoe gereeld ramings in finansiële state gebruik word. Ten einde 'n beter begrip van die herhalende gebruik van ramings in finansiële state te kry, is 'n lys van toegelate rekeningkundige ramings vir elkeen van die komponente op die Balansstaat opgestel. Daar is tot die gevolgtrekking gekom dat die komponente op die Balansstaat in 'n groot mate beïnvloed word deur rekeningkundige ramings.

Literatuur oor verdienstebeheer (earnings management) en kreatiewe rekeningkunde (creative accounting) is ondersoek om vas te stel of daar enige risiko bestaan dat rekeningkundige ramings gebruik kan word om finansiële state te manipuleer. Dit gee 'n aanduiding van die betroubaarheid van rekeningkundige ramings in finansiële state. Daar is tot die gevolgtrekking gekom dat die verskil tussen redelike aanbieding en kreatiewe rekeningkunde verband hou met die intensie van bestuur, en dit is moeilik om te bepaal.

Die koöperatiewe verslagdoeningsketting het 'n verantwoordelikheid om kreatiewe rekeningkundige praktyke en bedrog te voorkom en te ontdek. Hierdie verantwoordelikhede kan die risiko dat rekeningkundige ramings vir kreatiewe rekeningkundige doeleindes en bedrog gebruik word, beperk. In die voetspore van sommige finansiële rampe behoort hierdie remme en teenwigte die publieke vertroue in finansiële verslagdoening te herstel.

’n Empiriese studie is op vyf maatskappye wat deel vorm van die Konstruksie en Materiale sektor van die JSE gedoen, om die effek van ramings in hulle finansiële state vas te stel. Die studie het aangetoon dat:

- die gemiddelde persentasies van bates wat deur rekeningkundige ramings beïnvloed word (ingesluit kontant en kontant ekwivalente) is 60% vir 2004, 60% vir 2005 en 59% vir 2006. Indien kontant en kontant ekwivalente uitgesluit word in die berekening van bates wat deur rekeningkundige ramings beïnvloed word, is die gemiddelde persentasies 72% vir 2004, 77% vir 2005 en 76% vir 2006;
- daar is ’n toename in die aantal kere wat “ramings” in die finansiële state vanaf 2004 tot 2006 van die vyf maatskappye in die empiriese groep voorkom; en
- die openbaarmaking wat met sleutelaannames oor ramings verband hou is taamlik beperk.

’n Aantal aanbevelings word gedoen om die risiko van die gebruik van rekeningkundige ramings vir die doel van kreatiewe rekeningkunde te beperk. Die negatiewe effek van rekeningkundige ramings in finansiële state is ’n verlies aan betroubaarheid. Die positiewe effek van rekeningkundige ramings in finansiële state is die verskaffing van toepaslike inligting.

SLEUTELWOORDE:

Rekeningkundige ramings, kreatiewe rekeningkunde, Koöperatiewe verslagdoeningskettering, verdienstebestuur en billike waarde.

THE EFFECT OF ACCOUNTING ESTIMATES IN FINANCIAL STATEMENTS

CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

It is difficult to read and understand a book that has been written in German if German is a foreign language to the reader. It is as difficult to make sense of financial statements if financial accounting is a "foreign language" to the reader. Financial statements are telling a "story" to those who understand the language of financial accounting. The "story" is about the performance of an entity for a specific financial accounting period or the financial position at a certain date.

There are different "characters" that always form part of this financial statement "story", and they are assets, liabilities, equity, income and expenses. Each of them has a very important role to play and has an influence on whether the "story" will have a happy or sad ending. An indication of a happy or sad ending in terms of financial statements is of course the so-called "bottom line". The bottom line tells the reader if the entity made a profit or a loss! Another indicator of a happy or sad ending is the earnings per share figure, or in South Africa, the headline earnings per share. If you are looking for this accounting "story" in a library where would you find it?

If financial statements were to be filed in a library, they would be in the non-fiction section, as financial statements are supposed to be a true presentation of the performance and position of the different "characters" over a period of time or at a specific moment. Sadly enough, some recent financial disasters have indicated that the financial statements of Enron and WorldCom, for example, should be filed under the fiction section. How is it possible that non-fiction changed to fiction, with detrimental consequences and no one noticed until it was too late?

Perhaps the answer may be found in human nature. Who wants to be part of the story with a sad ending, and feel like a loser? It is preferable to be part of a story with a happy ending, and be seen as a winner. Winners are also likely to be rewarded. Perhaps because of this and the fact that humans are born with the ability to make choices and to be creative, financial statements sometimes end up as fiction.

“Cooking the books” is a term known to the man on the street and is used to indicate that financial statements have been tampered with. “Earnings management” and “creative accounting” are also terms used to indicate the manipulation of financial statements. If it is presumed that human nature plays a role in the manipulation of financial statements, accounting estimates could be used to do so.

Estimating amounts to be included in financial statements is an allowed practice in accounting. If exact amounts are not available, it is under certain circumstances allowed by accounting principles, to estimate the specific amount. Estimates are based on judgement and discretion. Of course, there is a good argument for making use of accounting estimates because in doing so, a relevant “story” of performance and position is told to the reader of the financial statements. As long as this “story” is also reliable, the “story” will be correctly filed in the non-fiction section.

It is however possible, that by making accounting estimates, judgement and discretion can be applied in such a manner that the bottom line (happy or sad ending) may be manipulated. This will also have an effect on the earnings per share and the headline earnings per share calculations. The making use of accounting estimates may therefore have a possible earnings management or creative accounting effect.

Accounting principles give entities discretion in using accounting estimates. This discretion has an influence on the determination of earnings. The users of financial statements have difficulty figuring out what judgements entities make to calculate

accounting estimates. The scandals of Enron, WorldCom and other companies are reminders that the users of financial statements should pay attention as to how earnings are calculated (David 2004:78).

Accountants can use their knowledge of International Financial Reporting Standards (IFRSs) to “manipulate” the amounts disclosed in financial statements. Financial statements can be “manipulated” by being biased in the making of accounting estimates. An example is the estimation of the useful life of an asset for the purpose of depreciation (Blake, Bond, Amat & Oliveras 2000:136 – 137).

It appears from the above that because accounting estimates are based on judgement and discretion, it can lead to the manipulation of financial statements. The effect of accounting estimates on financial statements can be important to the users of financial statements, first of all to be aware of which amounts in the financial statements are influenced by accounting estimates, and secondly, if there is any risk because of the use of accounting estimates. The risk could be that financial statements are manipulated. Consequently, these manipulated financial statements do not fairly represent the effects of transactions and events and the financial statement “story” changes from non-fiction to fiction. The probable risk involved in using accounting estimates in the preparation of financial statements forms the basis of the problem statement of this study.

1.2 PROBLEM STATEMENT

From the above, it may be deduced that by making accounting estimates allowed by International Financial Reporting Standards (IFRSs), the effect on financial statements could be that the reliability of financial reporting is affected because of manipulation. In the literature the manipulation of financial statements are referred to as “earnings management” or “creative accounting”. Naser (1993:59) defines “creative accounting” as the manipulation of accounting figures to change financial statements from what they should be to a required accounting result. This is done

by making use of accounting principles and rules. Earnings management may be defined as the manipulation of earnings toward a predetermined target (Mulford and Comiskey 2002:3).

From the two definitions mentioned above, it seems that both "earnings management" and "creative accounting" have the same purpose and that is to mask an entity's true financial position and performance. The accounting profession has been concerned with "earnings management" in the last few decades. It has been argued that earnings management hides the relevant information from the users of financial statements (Elias 2004:84). Creative accounting is however not always undesired. Koornhof and Du Plessis (2000:73) are of the opinion that not all practices of creative accounting have a "negative" effect. According to them creative accounting may have a "positive" effect if used in such a way that the financial position and performance of an entity is reflected fairly. This is especially the case in new areas of business lacking standards or guidelines. Therefore, in the absence of accounting principles and rules, creative accounting may be necessary to give a fair representation of an entity's financial performance and position.

Earnings management and creative accounting have recently been widely studied and various research papers have been published. This is understandable in the context of the Enron, WordCom and Parmalat disasters. Regulating bodies and users of financial statements are looking for answers and they would like to limit the risk of future unforeseen financial disasters. From the literature it is also clear that earnings management and creative accounting is a worldwide problem. Studies done in the United States of America (USA) that are referred to in this study are amongst others, *The financial numbers game: Detecting creative accounting practices* (Mulford & Comiskey 2002) and *Fuzzy numbers* (David 2004). Studies done in Europe that are referred to in this study are for example, *The ethics of creative accounting – some Spanish evidence* (Blake, Bond, Amat and Oliveras 2000), *Creative accounting in small advancing countries – the Greek case* (Baralexis 2004) and *Exploring the influences and constraints on creative accounting in the United Kingdom* (Shah 1998).

The study of earnings management and creative accounting may lead to a better understanding of how it occurs. Nelson, Elliot and Tarpley (2003:18) are of the opinion that “a better understanding of how earnings management occurs could help:

- regulators and standard setters to identify the areas most in need of regulatory changes;
- auditors to evaluate and report on their clients’ quality of earnings, and train novice auditors about earnings management;
- CEOs, CFOs, audit committees, and investors to focus attention on those areas of the financial statements where they should be most skeptical, managers and audit committees anticipate the transactions that investors will view most skeptically;
- educators to teach students about earnings management; and
- researchers to focus their analyses on areas of high-earnings-management activity”.

An important question in the study of earnings management and creative accounting is how accounting principles and rules allow the use thereof. According to David (2004:81 - 82) executives may manipulate the numbers on the financial statements through their accounting estimates. According to him the following are some of the ways entities can use accounting principles and rules to inflate, or deflate the earnings and cash flow they report:

- estimate sales after taking into account discounts or returns;
- predict customers’ bad debts and
- adjust inventory by changing the costs they estimate for inventory that will be obsolete before it can be sold.

If accounting estimates are made use of to manipulate financial statements, the number of accounting estimates used in the preparation of financial statements is important. David (2004:80) contends that the standard setters in the USA’s Financial Accounting Standards Board (FASB) require entities to make even more accounting estimates. These accounting estimates increase the potential for further

manipulation of the entities bottom line figures. Entities are required to estimate changes in the value of some assets and liabilities, which in turn, influence their earnings. Some of these accounting estimates will be reliable since they are based on known market prices, but others will be educated guesses that depend on a lot of assumptions.

In the United Kingdom (UK), there has been a bold attempt to control creative accounting. New weapons have been created by the UK and specific abuses are targeted (McBarnet and Whelan 1999:39). A number of role players are involved in the detection and prevention of earnings management and creative accounting. Managers, boards of directors and auditors all have responsibilities in terms of the prevention and detection of earnings management and creative accounting. The financial statement fraud disasters of Enron and WorldCom shook the confidence of the users of financial statements, in this so-called "corporate reporting supply chain" (DiPiazza Jr. and Eccles 2002:10). It is important to know and understand the responsibility of each of the role players in this chain to successfully evaluate the risk involved with the use of accounting estimates.

From the above the following problems may be derived:

- IFRSs presumably allows entities to make more accounting estimates;
- financial statements may be manipulated by being biased in the making of accounting estimates; and
- the mechanisms to prevent and detect earnings management and creative accounting are not adequate.

The above problems form the basis of this study. Having identified possible problems with the use of accounting estimates in the preparation of financial statements, the next step is to set the objectives of the study.

1.3 OBJECTIVES OF THE STUDY

Four research questions arise from the above problem statement, namely:

- Is there an increase in allowed accounting estimates required by the International Financial Reporting Standards (IFRSs)?
- Is there a risk that the use of accounting estimates may lead to earnings management and creative accounting?
- Are there any responsibilities placed on the “corporate reporting supply chain” to prevent and detect earnings management and creative accounting? and
- What is the effect of the use of accounting estimates in financial statements?

To address the above research questions, four objectives are formulated:

The first objective to be achieved by this study is to examine the International Financial Reporting Standards (IFRSs) with the purpose of identifying the accounting estimates that are allowed. The possible increase in allowed accounting estimates will be examined by comparing IFRSs from 2003 to 2006. This information can give an indication of the extent of the use of accounting estimates in financial statements.

The second objective of this study is to establish whether there is any risk that accounting estimates could lead to earnings management or creative accounting. The correlation between creative accounting, if any and financial statement fraud will also be examined. This information could give an indication of the reliability of accounting estimates within financial statements.

The third objective is to determine what the responsibilities of the “corporate reporting supply chain” are to prevent and detect earnings management and creative accounting practices, with special reference to accounting estimates. These responsibilities may lead to lowering the risk that accounting estimates could possibly be used in earnings management or creative accounting.

The fourth objective is to analyse the financial statements of companies within the

Construction and Material sector of the JSE to determine the effect of the use of accounting estimates on them.

1.4 SCOPE OF THE STUDY

The study will concentrate on IFRSs as used by listed companies on the Johannesburg Stock Exchange (JSE). The empirical study will focus on the accounting estimates used and the disclosure thereof in the financial statements of the companies within the Construction and Materials sector.

1.5 RESEARCH METHODOLOGY

The research methodology consists of a literature study and an empirical study, which are discussed below:

1.5.1 Literature study

The first three objectives of the study will be addressed by a literature study. The research methodology includes a literature study of International Financial Reporting Standards (IFRSs) in order to determine the number of allowed accounting estimates. From this study it will be established whether there has been any recent increases in allowed accounting estimates.

The literature on earnings management and creative accounting is examined, to determine if there is any risk that accounting estimates could be used to manipulate financial statements. With this literature study a comparison between creative accounting and fraud is made to highlight the differences and similarities.

The literature study will also refer to the "corporate reporting supply chain" to obtain insight into what is required from each of the role players to prevent and detect

earnings management and creative accounting, with specific reference to accounting estimates. The disclosures required by IFRSs concerning accounting estimates are also included in the study.

1.5.2 Empirical study

The fourth objective (see paragraph 1.3 above) will be addressed by an empirical study. Financial statements of the entities that form part of the Construction and Materials sector of the JSE will be analysed. The analysis will be limited to listed companies with a Construction Industry Development Board (CIDB) nine grading. The reason for the choice of this sector is that construction companies have large investments in property, plant and equipment, which are subject to accounting estimates. Revenue in terms of incomplete contracts is also calculated by making use of accounting estimates. The purpose of the analysis is to calculate a percentage of assets that represents the use of accounting estimates in financial statements. A comparison between the uses of estimates in the financial statements over a period of three years will be made. Financial statements for a financial year ended before 1 January 2005 and financial statements for two financial years ended after 1 January 2005 are used for the above analyses because, as from 1 January 2005, listed companies need to comply with IFRSs and there could be a change in the use of estimates from this date (Sowden-Service 2006:4). The disclosure in terms of key assumptions for the financial years ended during 2006 will be examined and compared to what is required from IFRSs.

1.6 CONTENTS OF THE STUDY

The contents of the study are in a logical sequence and will consist of the following six chapters:

Chapter 1 deals with the background, motivation, problem statement and objective of the study. The scope of the research and methodology used in the research are

also outlined. The four objectives of the study will be dealt with in Chapters 2, 3, 4, and 5.

In Chapter 2 accounting estimates are defined. A list of accounting estimates allowed by IFRSs is compiled and the possible increases in the allowed accounting estimates from 2003 to 2006 are examined. The use of fair values, as an example of accounting estimates, will also be considered. An indication of the specific line items in the balance sheet (also referred to as the "statement of financial position"), that could be affected by accounting estimates are given.

In Chapter 3 the relationship, if any, between accounting estimates and creative accounting will be explored. The reasons, incentives and motivation for creative accounting will be examined. Creative accounting and financial statement fraud are compared and analysed.

In Chapter 4 the duties of the different role players, within the "corporate reporting supply chain", to detect and prevent earnings management and creative accounting are discussed, with specific reference to accounting estimates. The "corporate reporting supply chain" includes standard setters, company executives, board of directors, audit committees, internal and independent auditor's information distributors, third party analysts, investors and other stakeholders.

In Chapter 5 the results of the empirical research are dealt with. An analysis of financial statements of the Construction and Materials sector of the JSE is performed with specific emphasis on the use of accounting estimates. A percentage of total assets affected by accounting estimates is calculated. The number of references to accounting estimates and the disclosure of these accounting estimates in the financial statements of the companies in the empirical group is examined.

Chapter 6 contains a summary of the study with a discussion of the overall conclusion reached. Recommendations and proposals for further research proceeding from this study are provided.

1.7 CONCLUSION

In Chapter 1 the background of the study is explained. The problem statement, objectives of the study and the research methodology are also highlighted. In the next chapter a list of allowed accounting estimates in terms of IFRSs is compiled to give an indication of the probable occurrence and increase of accounting estimates in IFRSs and financial statements.

CHAPTER 2

ACCOUNTING ESTIMATES IN FINANCIAL STATEMENTS

2.1 BACKGROUND

From Chapter 1 it is clear that there is a possible risk that accounting estimates allowed by the IFRSs could be used to manipulate financial statements. In this chapter the occurrence of accounting estimates in IFRSs and the nature of accounting estimates will be highlighted. Firstly, the IFRSs will be searched to establish whether there has been an increase in terms of allowed accounting estimates from 2003 to 2006 and secondly, a list of allowed accounting estimates will be compiled per standard. Before the IFRSs are scrutinised for an increase in allowed accounting estimates, an understanding of generally accepted accounting practice in South Africa is important and will be discussed in the next paragraph.

2.2 GENERALLY ACCEPTED ACCOUNTING PRACTICE

2.2.1 Introduction

Financial statements have been used for many years by a number of different users. According to Epstein and Mirza (2005:2) a need for the preparation of financial statements arose as a consequence of the Industrial Revolution early in the nineteenth century. Large amounts of capital were used to undertake industrial projects; for example, the building of canals and railways. The capital was raised from investors who did not form part of the day-to-day management of these large entities. The purpose of these financial reports was to present the investors with information and to provide a means of monitoring the activities of these large entities. A lot of development in the field of financial accounting and financial markets has taken place since then.

In the world of today countries are doing business in global markets. The year 2005 marked the fulfilment of an effort to create financial reporting rules and principles to which worldwide capital markets could adhere. From 2005 listed companies in the 25 European Union member states, Australia, New Zealand, Russia and South Africa will prepare annual financial statements in compliance with a single set of international principles – International Financial Reporting Standards (IFRSs) (Epstein & Mirza 2005:1). Unfortunately, North America does not prepare annual financial statements in compliance with IFRSs.

To understand the “language” of financial statements it is important for the external users of financial statements to have an understanding of IFRSs and the building blocks that underlie the preparation and presentation of financial statements. Two standards in IFRSs that specifically deal with the building blocks of financial statements are the *Framework* and IAS 1 (AC 101). The purpose of the *Framework for the preparation and presentation of Financial Statements* (the *Framework*) is to set out the concepts and assumptions for the preparation of financial statements. IAS 1 (AC 101) *Presentation of financial statements* deals with the overall considerations for the presentation of financial statements. A study of some of the assumptions and considerations from both the above-mentioned standards is a starting point for understanding the building blocks that underlie the preparation of financial statements.

2.2.2 Building blocks of financial statements

According to the *Framework* (IASB/SAICA 2006 - Framework (AC 000):par. 12) the objective of financial statements is to provide information about the financial position, performance and changes in the financial position of an entity that is useful to a wide range of users in making economic decisions. Some overall considerations for the presentation of financial statements are set out in *Presentation of Financial Statements* IAS 1 (AC 101). One of the overall considerations is fair presentation: “Financial statements shall present fairly the financial position, financial performance and cash flows of an entity. Fair presentation requires the faithful representation of

the effects of transactions, other events and conditions in accordance with the definitions and recognition criteria for assets, liabilities, income and expenses as set out in the *Framework*' (IASB/SAICA 2006 - IAS 1(AC 101): par. 13).

From the above it may be concluded that the *Framework* and IAS 1 (AC 101) has one objective and that is to provide the user with information from which the financial position and performance of an entity is evident. In the *Framework*, faithful presentation, as part of reliability, is one of the qualitative characteristics. In IAS 1 (AC 101) fair presentation, which requires faithful presentation, is one of the overall considerations when preparing financial statements. It is implied that financial statements shall only be useful to the users thereof if the information, together with other qualitative characteristics, is a faithful presentation of the underlying transactions and events.

For the financial information to be useful, it must have certain qualitative characteristics. The following principal qualitative characteristics of financial information are mentioned in the *Framework* as quoted by Vorster, Koornhof, Oberholster & Koppeschaar (2005:17):

- understandability – financial statements should be understandable to the average user with a reasonable knowledge and is willing to study the information;
- relevance – information that influences the economic decisions of users;
 - materiality – the omission or misstatement of information may influence the decisions of users;
- reliability – information should not contain material errors and should not be biased;
 - faithful representation – information should faithfully represent the financial position and/or results of the entity;
 - substance over form – information should reflect the economic substance rather than the legal form;
 - neutrality – information should be free from bias;
 - prudence – assets are not overstated and liabilities are not

- understated;
- completeness - information should be complete within the bounds of materiality and cost; and
- comparability – information for the same entity should be comparable over a period of time and information should be comparable between similar entities.

For the purpose of this study the characteristic of reliability and specifically the reliability of measurement is of importance because measurement may be based on estimates. The requirements for the recognition and measurement of the elements of financial statements should therefore be studied. In terms of the *Framework* (IASB/SAICA 2006 - Framework (AC 000):par. 83) "an item that meets the definition of an element should be recognised if:

- it is probable that any future economic benefit associated with the item will flow to or from the entity; and
- the item has a cost or value that can be measured with reliability".

In paragraph 86 of the *Framework* estimates are linked with reliability as follows: "In many cases, cost or value must be estimated, the use of reasonable estimates is an essential part of the preparation of financial statements and does not undermine their reliability" (IASB/SAICA 2006 - Framework (AC 000):par. 86). In other words the *Framework* recognises that reasonable estimates form part of the accounting narrative and should not influence the classification from non-fiction to fiction.

If financial statements were prepared on a cash basis, it would be easy to measure the cost or value of a transaction with reliability. However, one of the underlying assumptions of financial statements according to the *Framework*, is the use of the accrual basis. The accrual basis is defined as: "the effects of transactions and other events that are recognised when they occur (and not as cash or its equivalent is received or paid) and they are recorded in the accounting records and reported in the financial statements of the periods to which they relate. Financial statements prepared on the accrual basis inform users not only of past transactions involving

the payment and receipt of cash but also of obligations to pay cash in the future and of resources that represent cash to be received in the future” (IASB/SAICA 2006 - Framework (AC 000):par. 22). Because transactions are recognised according to the accrual basis and not when cash is paid or received, it is sometimes necessary to estimate the amount to be paid or received in the future. This is necessary so as to recognise the transaction in the accounting records when they occur. These estimates should satisfy the reliability conditions. If not, it may be presumed that financial statements will not fairly represent the effects of transactions and events.

A wide range of users with different needs, uses the information in financial statements. These users may be investors, employees, lenders of money, suppliers and other trade creditors, customers, governments and their agencies and the public (IASB/SAICA 2006 – Framework (AC 000): par. 9). In order to meet the needs of each of these groups, reliability and fair presentation are mentioned, amongst others, as characteristics of financial statements. “The application of IFRSs, with additional disclosure when necessary, is presumed to result in financial statements that achieve a fair presentation” (IASB/SAICA 2006 - IAS 1(AC 101):par. 13). Bearing in mind that financial statements are prepared according to the accrual basis, it is sometimes necessary to make estimations. These accounting estimates should not undermine the reliability of financial statements. It is important to note that “reliability” and not the words “accuracy” or “precision” is used in the *Framework* as a qualitative characteristic of financial statements.

The above paragraphs have identified the building blocks of the framework of financial statements. All of the identified building blocks comprise the “language” of accounting which is manifested in IFRSs. The next paragraph deals with the application of the IFRSs in South Africa.

2.2.3 IFRSs in South Africa

According to Vorster *et al.* (2005:5), it is desirable that financial statements are comparable internationally, since international transactions and interests are becoming more common. According to Sowden-Service (2006:4) 92 countries (at March 2004) agreed to adopt this single “language” of International Financial Reporting Standards. To get the remaining countries to comply with the IFRSs could be a lengthy and politically volatile project. All countries that adopted the IFRSs must comply with them for the financial periods beginning on or after 1 January 2005. The Accounting Practice Board (APB), a South African body that approves Standards of Generally Accepted Accounting Practice, has committed itself, with the so-called harmonisation project, to eliminate differences between South African and International standards of Generally Accepted Accounting Practice (GAAP).

The body responsible for the development of the IFRSs is the International Accounting Standards Board (IASB). The IASB cooperates with accounting standard-setters of countries throughout the world to achieve global convergence. The South African Institute of Chartered Accountants (SAICA) is represented on the IASB. The APB of South Africa accepts the International Financial Reporting Standards (IFRSs) issued by the International Accounting Standards Board (IASB) as Standards of GAAP in South Africa. The original text of the IFRSs is adopted without any amendments (Vorster *et al.* 2005:5).

Standards issued by the IASB are designated “IFRSs” and standards issued by the International Accounting Standards Committee (IASC), the predecessor of the IASB, is designated “IASs”. The International Financial Reporting Interpretations Committee (IFRIC) is an assisting committee to the IASB. “The role of the IFRIC is to provide timely guidance on newly identified financial reporting issues not specifically addressed in IFRSs or issues where unsatisfactory or conflicting interpretations have developed, or seem likely to develop. It thus promotes the rigorous and uniform application of IFRSs” (IASB/SAICA 2006 – *Preface to International Financial Reporting Interpretations*: par. 1). Standards issued by the

IFRIC are designated “IFRICs” and standards issued by the Standards Interpretation Committee (SIC), the predecessor of the IFRIC, is designated “SICs”.

A dual numbering system is used in South Africa (SA) to refer both to the SA GAAP standard number and the IFRS number. SA GAAP which is equal to IFRS, therefore consist of the following (Vorster *et al.* 2005:5-8):

- IFRSs, with an AC 100 series number;
- IASs with an AC 100 series number;
- IFRICs with an AC 400 series number: and
- SICs with an AC 400 series number.

In this paragraph the harmonisation of the IFRSs and SA GAAP in South Africa and the building blocks thereof are examined. A background is also provided on IFRSs, IASs, IFRICs and SICs. Before IFRSs can be scrutinised for allowed accounting estimates, accounting estimates need to be defined.

2.3 DEFINING ACCOUNTING ESTIMATES

To understand the nature of accounting estimates and the consequential risk involved in the use thereof, it is important to define accounting estimates. Although estimates are often referred to in the IFRSs, it is interesting to note that accounting estimates are not defined within the IFRSs.

The only accounting standard that refers to a definition of estimates is a definition for “changes in estimates” that is given in IAS 8 (AC 103: par. 5). “A change in accounting estimate is an adjustment of the carrying amount of an asset or a liability, or the amount of the periodic consumption of an asset, that results from the assessment of the present status of, and expected future benefits and obligations associated with, assets and liabilities. Changes in accounting estimates result from new information or new developments and, accordingly, are not corrections of errors” (IASB/SAICA 2006 – IAS 8 (AC 103): par. 5). In terms of IAS 8 (AC 103:

par. 5) accounting estimates may be changed if there is a change to available information.

Since auditors need to form an opinion on accounting estimates being used in financial statements, accounting estimates are defined in International Standards on Auditing (ISA). ISA 540 *Audit of Accounting Estimate* defines accounting estimates as “an approximation of the amount of an item in the absence of a precise means of measurement. Examples are (IAASB/PAAB 2006 – ISA 540: par. 3):

- allowances to reduce inventory and accounts receivable to their estimated realisable value;
- provisions to allocate the cost of fixed assets over their estimated useful lives;
- accrued revenue;
- deferred tax;
- provision for a loss from a lawsuit;
- losses on construction contracts in progress; and
- provision to meet warranty claims”.

From the above it may be derived that by using incomplete information, accounting estimates are made. Therefore estimates are not exact numbers but calculated guesses. Using the Thesaurus function in Microsoft Word, synonyms given for estimate are, amongst others, approximation, guess and ballpark figure.

The use of accounting estimates adds to the flexibility inherent in the preparation of financial statements. Keeping this in mind, it is important to establish if accounting estimates are common and if IFRSs allow an increase in accounting estimates over a number of years. In the following paragraph possible increases in accounting estimates allowed by the IFRSs are examined.

2.4 POSSIBLE INCREASE IN ALLOWED ACCOUNTING ESTIMATES

In order to establish the occurrence of allowed accounting estimates in financial statements and to confirm a possible increase in allowed accounting estimates in the IFRSs, an electronic keyword search was conducted. The keyword search was conducted by making use of the South African Institute of Chartered Accountants (SAICA) electronic handbook. This handbook that was issued during May 2006 contains, amongst others, the Accounting Standards for the years 2006, 2005, 2004 and 2003. The keyword search was done on all four of these available years. The words that were used in the search were "estimate", "estimated", "estimates", "estimating", "estimation" and "estimations".

A summary of the total number of hits for the above keywords for each of the four years is presented in Table 1 below. It may be noted that the number of hits is an indication of the number of paragraphs in IFRSs, which contain any of the above-mentioned keywords. If more than one of the above-mentioned keywords is found in a paragraph, the number of hits will be indicated as one. The hits also include hits within the Basis for Conclusions and Implementation Guidance, which sometimes accompanies some IFRSs but do not form part of the specific IFRSs.

Two sets of hits are indicated for 2005; the reason being that listed companies with a financial year-end commencing prior to 1 January 2005 and companies with a financial year-end commencing after 1 January 2005 prepared financial statements using IFRSs with different issue dates. Appendix A provides a complete list which indicates the number of hits in each of the accounting standards for 2006, 2005, 2004 and 2003. It is clear from Appendix A that there is no increase in terms of allowed accounting estimates between IFRS: 2004 and IFRSs: 2005 (prior to 1 January 2005), since the number of hits is the same (see Table 1 below).

Table 1: Number of accounting “estimate” hits

Year	Number of accounting estimate hits	Increase from one year to the next	Accumulated increase
2006	1 094	29	669
2005: After 1 January 2005	1 065	462	640
2005: Prior to 1 January 2005	603	None	178
2004	603	178	178
2003	425	Not applicable	-

From the above table it seems as if there is a definite increase in the number of paragraphs in the IFRSs from 2003 to 2006, which contain any of the words “estimate”, “estimated”, “estimates”, “estimating”, “estimation” and “estimations”. Of the total increases of 669 paragraph hits, 178 are between IFRSs: 2003 and IFRSs: 2004, 462 are between IFRSs: 2004 and IFRSs: 2005 (after 1 January 2005) and only 29 between IFRSs: 2005 (after 1 January 2005) and IFRSs: 2006. Further investigation is necessary to identify the specific standards and the reasons that led to these increases. The next paragraph will explain the increases in allowed accounting estimates between IFRSs: 2003 and IFRSs: 2004.

2.5 INCREASES IN “ESTIMATE” HITS BETWEEN 2003 AND 2004

In the previous paragraph an increase of 178 paragraphs with accounting “estimate” hits have been indentified between IFRSs: 2003 and IFRSs: 2004 through the keyword search. Table 2 below provides a summary of the specific standards in which an increase (or decrease), in the number of paragraphs containing the words “estimate”, “estimated”, “estimates”, “estimating”, “estimation” and “estimations” (also referred to as “accounting estimate hits”) could be found.

Table 2: Increases (decreases) in accounting estimate hits from 2003 to 2004

Standard number	Title	Number of hits		Number of increases in hits	Percentage increase in hits
		IFRSs: 2004	IFRSs: 2003		
IFRS 1 (AC138)	First-time Adoption of International Financial Reporting Standards	33	59	(26)	(15%)
IFRS 3 (AC140)	Business Combinations	32	18	14	8%
IAS 11 (AC109)	Construction Contracts	23	16	7	4%
IAS 26 (AC136)	Accounting and Reporting by Retirement Benefit Plans	5	3	2	1%
IAS 34 (AC127)	Interim Financial Reporting	35	32	3	2%
IAS 36 (AC128)	Impairment of Assets	200	95	105	59%
IAS 37 (AC130)	Provisions, Contingent Liabilities and Contingent Assets	40	36	4	2%
IAS 38 (AC129)	Intangible Assets	42	17	25	14%
IAS 41 (AC137)	Agriculture	32	29	3	2%
IFRIC 1 (AC434)	Changes in Existing Decommissioning, Restoration and Similar Liabilities	39	0	39	22%
SIC 12 (AC412)	Consolidation – Special Purpose Entities	1	0	1	0,5%
SIC 32 (AC432)	Intangible Assets – Web Site Costs	3	2	1	0,5%
Total number of increases				178	100%

IFRS 1 (AC138) shows an unexpected decrease in allowed accounting estimates. IFRS 1 (AC 138) will be analysed to establish the reason for this. IAS 36 (AC 128)

Impairment of Assets explains 59% of the increases, IFRIC 1 (AC 434) *Changes in Existing Decommissioning, Restoration and Similar Liabilities* 22% and IAS 38 (AC 129) *Intangible assets* another 14%. In total these three standards explain 95% of the total increases. The above-mentioned four standards will be examined to confirm any allowed increases (or decreases) in accounting estimates required by IFRSs: 2004. IFRS 1 (AC 138) that according to Table 2 indicates a decrease in the number of accounting estimate hits from IFRSs: 2003 to IFRSs: 2004 is discussed in the next paragraph.

2.5.1 IFRS 1 (AC 138)

The paragraph hits in IFRS 1 (AC 138) *First-time Adoption of International financial Reporting Standards* dealing with accounting estimates have the purpose of giving guidance on how a first-time adopter's accounting estimates under IFRSs relate to the accounting estimates it made for the same date under previous GAAP ((IASB/SAICA 2004 - IFRS 1(AC 138): par. IN7(c)). In essence, there are no accounting estimates allowed in terms of IFRS 1 that are not already allowed in terms of other standards. The decrease in accounting estimate hits between IFRSs: 2003 and IFRSs: 2004 is because IFRS 1 (AC 138) that forms part of IFRSs: 2003 (electronic version) contains as part of the Implementation Guidance a question and answer section, that does not form part of IFRS 1(AC 138) contained in IFRSs: 2004 (electronic version). The elimination of the question and answer section does therefore not actually represent a decrease in allowed accounting estimates.

2.5.2 IAS 36 (AC 128)

According to Table 2 above, the increase in accounting estimate hits in paragraphs within IAS 36 (AC 128) *Impairment of Assets* from IFRSs: 2003 to IFRSs: 2004 is 105 (59%). To establish the reason for this increase the specific standards within IFRSs: 2003 and IFRSs: 2004 have been compared with each other. The comparison is based on the number of accounting "estimate" hits under a main heading, as indicated in the contents of IAS 36 (AC 128). An increase in accounting

“estimate” hits under a specific heading may indicate the requirement for additionally allowed accounting estimates to be made in terms of IFRSs: 2004. This comparison is presented in Table 3 below.

Table 3: AC 128 (issued June 1999) and IAS 36 (issued June 2004)

IFRSs: 2003		IFRSs: 2004	
AC 128 (issued June 1999)		IAS 36 (issued June 2004)	
Main heading:	Number of hits:	Main heading:	Number of hits:
Contents	2	Contents	4
		Introduction	5
Scope	1	Scope	3
Definitions	1	Definitions	0
Identifying an asset that may be impaired	4	Identifying an asset that may be impaired	4
Measurement of recoverable amount	38	Measuring recoverable amount	36
Recognition and measurement of an impairment loss	1	Recognising and measuring an impairment loss	1
Cash-generating units	14	Cash-generating units and goodwill	12
Reversal of an impairment loss	6	Reversing an impairment loss	5
Disclosure	2	Disclosure	4
Transitional provisions	1	Transitional provision and effective date	0
Appendix	25	Appendix	24
		Basis for conclusions	80
		Illustrative examples	22
Total number of hits:	95	TOTAL NUMBER OF HITS:	200

From the above table it is clear that AC 128 (issued June 1999) did not have any main headings dealing with “Introduction”, “Basis for Conclusions” and “Illustrative Examples”. The “Basis for Conclusions” and “Illustrative Examples” are sections that accompany IAS 36 (AC 128) (issued June 2004) and explain almost all of the increases in the accounting “estimate” hits between IFRSs: 2003 and IFRSs: 2004. The “Basis for Conclusions” is a summary of the IASB considerations and the “Illustrative Examples” contains examples that illustrate the application of the specific standard. Both these sections are added to the IAS standards (did not form

part of the "old" AC statements), but only accompany the standard and do not give evidence of any new allowed accounting estimates in IFRSs: 2004.

For additional confirmation of this, the Table of Concordance has been inspected. "This table shows how the contents of the superseded version of IAS 36 (AC 128) and the new version of IAS 36 (AC 128) correspond. Paragraphs are treated as corresponding if they broadly address the same matter even though their guidance may differ" ((IASB/SAICA 2004 – IAS 36 (AC 128): Table of Concordance). All the current paragraphs listed on the Table of Concordance without a corresponding superseded paragraph have been verified to confirm that they do not carry any requirements for additional accounting estimates. The following paragraphs have been inspected: IAS 36 (AC 128) Par: 10, 11, 24, 30, 32, 34, 83-87, 89, 91-99, 133-137, 140, and 141. Paragraph 30 is the only paragraph of the above that mentions estimates and in the context of the calculation of an asset's value in use. An estimate of the future cash flows that the entity expects to derive from the asset should be included in this calculation ((IASB/SAICA – IAS 36 (AC 128): par. 30). Since value in use has always been estimated, the measurement of the value in use does not indicate a requirement for an additional accounting estimate.

The summary of main changes as part of the Introduction to the standard has also been inspected to confirm that the changes do not allow additional accounting estimates. According to paragraphs IN 6 – IN 9 in IAS 36 (AC 128) that was issued during June 2004 the "new" standard gives additional guidance on the measurement of value in use.

As seen from the above, no requirements for additional accounting estimates were found from 2003 to 2004 in IAS 36 (AC128). In the next paragraph possible increases in allowed accounting estimates within IFRIC 1 (AC 434) between IFRSs: 2003 and IFRSs: 2004 are examined.

2.5.3 IFRIC 1 (AC 434)

IFRIC 1 (AC 434) *Changes in Existing Decommissioning, Restoration and Similar Liabilities* is an interpretation standard that gives guidance “on how to account for the effect of changes in the measurement of existing decommissioning, restoration and similar liabilities. Many entities have obligations to dismantle, remove and restore items of property, plant and equipment. In this Interpretation such obligations are referred to as ‘decommissioning, restoration and similar liabilities’” ((IASB/SAICA – IFRIC 1 (AC 434): par. 1). Since the standard gives guidance on changes in the measurement of existing accounting estimates in other statements, no evidence is found to suggest that the new IFRSs require additional accounting estimates. IAS 38 (AC 129) that explains 14% of the increases (see Table 2 above) in the accounting estimate paragraph hits from IFRSs: 2003 to IFRSs: 2004 is discussed in the next paragraph.

2.5.4 IAS 38 (AC 129)

According to Table 2 above, the increase in accounting estimate paragraph hits within IAS 38 (AC 129) *Intangible Assets* between IFRSs: 2003 and IFRSs: 2004 is 25 (14%). To establish the reason for this increase, the specific standard within IFRSs: 2003 and IFRSs: 2004, is firstly compared with each other. Secondly, the Table of Contents is inspected; and thirdly, the summary for main changes in the Introduction section is examined. The comparison, per main heading, between AC 129 (IFRSs: 2003) and IAS 38 (IFRSs: 2004) is presented in Table 4 below.

Table 4: AC 129 (issued June 1999) and IAS 38 (issued June 2004)

IFRSs: 2003		IFRSs: 2004	
AC 129 (issued June 1999)		IAS 38 (issued June 2004)	
Main heading:	Number of hits:	Main heading:	Number of hits:
Contents		Contents	1
		Introduction	2
Definitions		Definitions	1
Recognition and initial measurement of intangible assets	5	Recognition and measurement	9
Amortisation	8	Useful life	3
		Intangible assets with finite useful lives	3
		Intangible assets with indefinite useful lives	1
Recoverability of the carrying amount – impairment losses	2	Recoverability of the carrying amount – impairment losses	0
Disclosure	1	Disclosure	2
Transitional provisions	1	Transitional provision and effective date	2
		Basis for conclusions	14
		Illustrative examples	4
TOTAL NUMBER OF HITS:	17	TOTAL NUMBER OF HITS:	42

From the above table it is clear that there are twenty-five (42 – 17) more hits in IFRSs: 2004 than in IFRSs: 2003. Twenty of the twenty-five (80 %) increases in accounting estimate hits between IFRSs: 2003 and IFRSs: 2004 for IAS 38 (AC 129) may be explained by the additional “Introduction” (2), “Basis for Conclusion” (14) and “Illustrative Examples” (4) paragraphs. If there are any requirements for additional accounting estimates in the remaining 20% increases in “estimate” hits, they should be identified with the examination of the Table of Concordance and the summary of main changes.

All the current paragraphs listed in the Table of Concordance each without a corresponding superseded paragraph have been verified to confirm that they do not carry any requirements for additional accounting estimates. The following paragraphs have been inspected: IAS 38 (AC 129) Par: 19, 29-31, 36, 37, 42, 43,

88, 89, 91, 103, 107, 107-110, 114-117, and 132. Paragraph 91 and 109 are the only paragraphs of the above that mention estimates and in the context of an indefinite useful life and a change from indefinite to finite useful life. The change should be accounted for as a change in accounting estimate ((IASB/SAICA 2004 – IAS 38 (AC 129):par. 109).

This change is also mentioned in the Introduction of IAS 38 (AC 129) as part of the summary of changes. "An intangible asset with an indefinite useful life should not be amortised. The useful life of such an asset should be reviewed each reporting period to determine whether events and circumstances continue to support an indefinite useful life assessment for that asset. If they do not, the change in the useful life assessment from indefinite to finite should be accounted for as a change in an accounting estimate" ((IASB/SAICA – IAS 38 (AC 129):par. IN11). Since the useful life of an asset that may be an intangible asset, has always been an estimate, there is no evidence of newly allowed accounting estimates in IAS 38 (AC 129).

2.5.5 Conclusions on "estimate" hits between 2003 and 2004

From the above discussion there is no evidence indicating either an increase or a decrease in allowed accounting estimates required by IFRSs: 2004. Increases in accounting "estimates" paragraph hits in the new IAS or IFRSs are mainly found because of the "Introduction", "Basis for Conclusions" and "Illustrative Examples" sections that accompany the new IAS or IFRSs that did not accompany the old "AC" standards.

It is expected that for all the "AC" standards harmonised with the IAS and IFRSs, an increase in accounting "estimate" paragraph hits will be indicated. It could be of importance to confirm this by scrutinising the increases in accounting "estimate" paragraph hits between IFRSs: 2004 and IFRSs: 2005 (after 1 January 2005). In the next paragraph these increases are discussed in more detail.

2.6 INCREASES IN "ESTIMATE" HITS BETWEEN 2004 AND 2005

The largest increase, a total of 462, in paragraphs (refer to Table 1 above) containing the words "estimate", "estimated", "estimates", "estimating", "estimation" and "estimations" is found between IFRSs: 2004 and IFRSs: 2005 (after 1 January 2005). Table 5 below provides a summary of the specific standards in which the increases can be found. Only standards with more than ten increases in accounting "estimate" paragraph hits are indicated, which explains 81% (373/462) of the total increase. Refer to Appendix A for a complete summary of the number of accounting "estimate" hits.

Table 5: Accounting "estimate" hits between 2004 and 2005 (after 1 January 2005)

Standard number:	Title	Number of hits		Number of increases in hits
		2005: After 1 Jan 2005	2004:	
	Newly issued:			
IFRS 2 (AC139)	Share-based Payment	129	-	129
IFRS 4 (AC141)	Insurance Contracts	42	-	42
IFRS 7 (AC144)	Financial Instruments: Disclosures	15	-	15
	Revised:			
IAS 1 (AC101)	Presentation of Financial Statements	33	0	33
IAS 8 (AC103)	Accounting Policies, Changes in Accounting Estimates and Errors	38	16	22
IAS 19 (AC116)	Employee Benefits	50	28	22
IAS 39 (AC133)	Financial Instruments: Recognition and Measurement	103	15	88
IAS 41 (AC137)	Agriculture	54	32	22
Total number of increases in hits in above standards				373
Other standards with less than 10 increases				89
Total number of increases in hits as per Table 1				462

From the above table it is evident that of the eight standards with more than ten

increases in accounting “estimate” paragraph hits, three are newly issued IFRSs and five have been revised.

In the following paragraphs each of the standards listed in Table 5 above will be scrutinised to confirm any requirements for additional accounting estimates within IFRSs: 2005 (after 1 January 2005). The three newly issued standards will be discussed first, followed by the revised standards.

2.6.1 IFRS 2 (AC 139)

IFRS 2 (AC 139) represents 129 (28%) of the 462 increases in accounting “estimate” paragraph hits between IFRSs: 2004 and IFRSs: 2005 (after 1 January 2005). The reason for the issue of IFRS 2 (AC 139) *Share-based Payment* is that “entities often grant shares or share options to employees or other parties. Share plans and share option plans are a common feature of employee remuneration, for directors, senior executives and many other employees. Some entities issue shares or share options to pay suppliers, such as suppliers of professional services” ((IASB/SAICA 2005 – IFRS 2(AC 139): par. IN1). An examination of IFRS 2 (AC 139) revealed a number of allowed accounting estimates. A short summary of these allowed accounting estimates is shown in Table 6 below:

Table 6: Allowed accounting estimates in IFRS 2 (AC 139)

PARAGRAPH NUMBER:	ALLOWED ACCOUNTING ESTIMATE:
IFRS 2.10	For equity-settled share-based payment transactions, the entity shall measure the goods or services received, and the corresponding increase in equity, directly, at the fair value of the goods or services received, unless that fair value cannot be estimated reliably.
IFRS 2.11	To apply the requirements of paragraph 10 to transactions with employees and others providing similar services, the entity shall measure the fair value of the services received by reference to the fair value of the equity instruments granted. Also refer to paragraph 17.
IFRS 2.15	For transactions in which services are received, and the equity instruments granted do not vest until the counterparty completes a specified period of service, the entity shall estimate the length of the expected vesting period at grant date, based on the most likely outcome of the performance condition.
IFRS 2.17	If market prices are not available for equity instruments granted, the entity shall estimate the fair value of the equity instruments granted.
IFRS 2.20	The entity shall recognise an amount for the goods or services received during the vesting period based on the best available estimate of the number of equity instruments expected to vest and shall revise that estimate, if necessary, if subsequent information indicates that the number of equity instruments expected to vest differs from previous estimates.

IFRS 2 (AC 139) paragraphs 10, 11 and 17 require measurement at fair value. It is also mentioned in both paragraphs 10 and 17 that the fair value measurement is an estimate. Paragraphs 15 and 17 require the estimate of the length of a vesting

period and an estimate of the number of equity instruments expected to vest respectively. It is therefore clear that IFRS 2 (AC 139) requires additional accounting estimates. These additional estimates deal mainly with fair value accounting requirements. In the next paragraph the second of the three newly issued standards with more than ten increases in accounting “estimate” paragraph hits is discussed (refer to Table 5 above).

2.6.2 IFRS 4 (AC 141)

IFRS 4 (AC 141) represents 42 of the 462 (9%) increases in accounting “estimate” paragraph hits between IFRSs: 2004 and IFRSs: 2005 (after 1 January 2005). The objective of IFRS 4 (AC 141) *Insurance Contracts* “is to specify the financial reporting for insurance contracts by any entity that issues such contracts (described in this IFRS as an insurer) until the Board completes the second phase of its project on insurance contracts”. In particular, with reference to accounting estimates, IFRS 4 (AC 141) requires that “an insurer shall assess at each reporting date whether its recognised insurance liabilities are adequate, using current estimates of future cash flows under its insurance contracts” ((IASB/SAICA 2005 – IFRS 4(AC 141):par. 15). Additional accounting estimates are therefore required in IFRS 4 (AC 141). In the following paragraph the third of the three newly issued standards with more than ten increases in accounting “estimate” paragraph hits is discussed (refer to Table 5 above).

2.6.3 IFRS 7 (AC 144)

IFRS 7 (AC 144) represents 15 of the 462 (3%) increases in accounting “estimate” paragraph hits between IFRSs: 2004 and IFRSs: 2005 (after 1 January 2005). One of the reasons for the issue of IFRS 7 (AC 144) *Financial Instruments: Disclosures* is to give information by way of disclosure requirements to the users of financial statements about an entity’s exposure to risks and how those risks are managed. IFRS 7 (AC 144) supersedes the disclosure requirements of IAS 32 (AC 125), while the presentation requirements of IAS 32 (AC 125) remain unchanged ((IASB/SAICA

2005 – IFRS 7(AC 144):par. IN2 and IN7). Since IFRS 7 (AC 144) deals with disclosure requirements, no confirmation of requirements for additional accounting estimates could be found.

In the above discussion of the newly issued standards that form part of IFRSs: 2005 (after 1 January), two of the three required an increase in allowed accounting estimates. In the following paragraphs the five revised standards that displayed an increase in accounting “estimate” paragraph hits (refer to Table 5 above) are analysed in more detail.

2.6.4 Revised standards analysed

Table 7 provides a summary of the number of accounting “estimate” hits within the “Introduction”, “Basis of Conclusion” and “Guidance on Implementation” sections, of the five revised standards (refer to Table 5 above). The Basis of Conclusion and Guidance on Implementation paragraphs accompany only the standard and do not form part of the actual standard.

Table7: Accounting “estimate” hits in Introduction and accompanying sections

Standard number	Increase in Hits: D (Refer to Table 5)	A	B	C	Total Hits: A+B+C	% Change explained by (A+B+C) /D
IAS 1 (AC101)	33	5	11	0	16	48%
IAS 8 (AC103)	22	3	6	3	12	55%
IAS 19 (AC116)	22	0	20	0	20	91%
IAS 39 (AC133)	88	3	37	22	62	70%
IAS 41 (AC137)	22	1	19	0	20	91%
Total	187	15	93	25	130	70%

A = Number of hits in Introduction

B = Number of hits in Basis of Conclusion

C= Number of hits in Guidance on Implementation

The above summary is used as a starting point to indicate the reasons for any possible increases in allowed accounting estimates between IFRSs: 2004 and IFRSs: 2005 (after 1 January 2005). In most cases (70%) the increase in “estimate” hits is represented by the Introduction, Basis of Conclusion or Guidance on Implementation. In the following paragraphs each of these standards that have been revised, will be discussed separately to confirm the reason for the increase in allowed accounting estimates.

2.6.4.1 IAS 1 (AC 101)

The first of the five revised standards to be discussed is IAS 1 (AC 101). IAS 1 (AC 101) represents 33 of the 462 (7%) accounting "estimate" paragraph increases between IFRSs: 2004 and IFRSs: 2005 (after 1 January 2005). The number of accounting "estimate" paragraph hits in IAS 1 (AC 101) *Presentation of Financial Statements*, which has been revised during August 2004, is 33 compared to the nil of the previous standard that was issued during October 1998. All of the accounting "estimate" paragraph hits could therefore be an indication of additional allowed accounting estimates. The "Changes from previous requirements" paragraph that forms part of the Introduction section of the standard is a good starting point to confirm this.

In terms of the revised IAS 1 (AC 101) the following changes that specifically deal with presentation and disclosure are required: "the key assumptions concerning the future, and other key sources of estimation uncertainty at the balance sheet date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year" ((IASB/SAICA 2005 – IAS 1 (AC 101): par. IN12(b)). The "Key Sources of Estimation Uncertainty" are dealt with in Paragraphs 116 to 124 of the revised IAS 1 (AC 101). Thirty-three percent (33%) of the accounting "estimate" hits (refer to Table 5 above) may be found in these paragraphs.

From the above it should be clear that the key sources of estimation uncertainty in terms of allowed accounting estimates need to be disclosed. This is therefore not an indication of additional allowed accounting estimates but of additional disclosure requirements. These disclosure requirements could be of significance for the purpose of the study. It is possible that the risk of accounting estimates being used to manipulate financial statements could be limited because of these disclosure requirements. In Chapter 4 the limitation of risk through increased disclosure requirements is discussed in more detail. In the following paragraph the second of the five revised standards with more than ten increases in accounting "estimate"

paragraph hits is discussed (refer to Table 5 above).

2.6.4.2 IAS 8 (AC 103)

IAS 8 (AC 103) represents 22 of the 462 (5%) increases in accounting "estimate" paragraph hits between IFRSs: 2004 and IFRSs: 2005 (after 1 January 2005). Only 55% of this increase in accounting "estimate" paragraph hits could be explained by the introduction and accompanying sections (refer to Table 7 above) of IAS 8 (AC 103) *Accounting Policies, Changes in Accounting Estimates and Errors*. The Table of Concordance and the Introduction have been examined to prove whether an increase in allowed accounting estimates exists.

All the current paragraphs listed in the Table of Concordance without a corresponding superseded paragraph were verified to confirm that they do not carry any requirements for additional accounting estimates. The following paragraphs have been inspected: IAS 8 (AC 103) Par: 6, 20, 21, 27, 37, 43-45, 47, 50-53 and 56. Paragraph 37 and 51-53 above are the only paragraphs that mention estimates. IAS 8(AC 108) paragraph 37 (issued March 2004) gives guidance as to how a change in accounting estimate should be recognised if the change in an accounting estimate gives rise to changes in assets and liabilities, or relates to an item of equity ((IASB/SAICA 2005 – IAS 8(AC 103):par. 37). The impracticability in respect of retrospective application and retrospective restatement are dealt with in paragraphs 51-53.

According to the Introduction, this standard includes a definition for the change in accounting estimates ((IASB/SAICA 2005 – IAS 8(AC 103): par. IN17). No proof for additional accounting estimates could therefore be found in the above paragraphs. In the following paragraph the third and fourth of the five revised standards with more than ten increases in accounting "estimate" paragraph hits are discussed (refer to Table 5 above).

2.6.4.3 IAS 19(AC 116) and IAS 41 (AC 137)

IAS 19 (AC 116) and IAS 41 (AC 137) represent 44 of the 462 (10%) increases in accounting "estimate" paragraph hits between IFRSs: 2004 and IFRSs: 2005 (after 1 January 2005). Only four of the 44 increases in accounting "estimate" paragraph hits cannot be explained by the introduction and accompanying sections to IAS 19 (AC 116) *Employee Benefits* and IAS 41 (AC 137) *Agriculture* (refer to Table 7 above). It may therefore be concluded that there is no proof for additional accounting estimates within these two standards. In the following paragraph the last of the five revised standards with more than ten increases in accounting "estimate" paragraph hits is discussed (refer to Table 5 above).

2.6.4.4 IAS 39 (AC 133)

IAS 39 (AC 133) represents 88 of the 462 (19%) increases in accounting "estimate" paragraph hits between IFRSs: 2004 and IFRSs: 2005 (after 1 January 2005). IAS 39 (AC 133) *Financial Instruments: Recognition and Measurement* replaces the previous IAS 39 that was revised during September 2002. The revised IAS 39 (AC 133) provides additional guidance on selected matters and is part of a project to improve IAS 32 (AC 125) *Financial Instruments: Disclosure and Presentation* ((IASB/SAICA 2005 – IAS 39(AC 133):par. IN1-IN3). The disclosure requirements formerly included in IAS 39 (AC 133) have been incorporated into the current version of IAS 32 (AC 129) ((IASB/SAICA 2005 – IAS 39(AC 133): par. IN25).

Since the layout and the format of the standard changed, the 50% increase in accounting "estimate" paragraph hits that could be explained by the introduction and accompanying sections (refer to Table 7 above) is not necessarily a true reflection of the changes within the standard. The Table of Concordance and the Introduction have therefore been inspected to confirm whether there are possible increases in allowed accounting estimates.

With the inspection of the Table of Concordance no current paragraphs were found

without reference to a superseded paragraph. This indicates that no new paragraphs were added to the revised IAS 39 (AC 133). One of the main changes indicated in the Introduction of IAS 39 (AC 133) is that additional guidance about how to determine fair values using valuation techniques is provided. For the purpose of the study it is important to note that "in applying valuation techniques, an entity uses estimates and assumptions that are consistent with available information about the estimates and assumptions that market participants would use in setting a price for the financial instrument" ((IASB/SAICA 2005 – IAS 39(AC 133): par. IN18). From this it could be deduced that under certain circumstances the calculation of fair values is an accounting estimate. No proof could therefore be found for an increase in allowed accounting estimates other than the calculation of fair values.

2.6.5 Conclusions on "estimate" hits between 2004 and 2005

From the above review it is clear that the following reasons explain the large increase in accounting "estimate" hits between IFRS: 2004 and IFRS: 2005 (after 1 January 2005):

- an increase in the number of allowed accounting estimates from the newly issued IFRS which relate mainly to estimating fair values;
- additional guidance is given on the recognition of a change in accounting estimates and the determining of fair values;
- additional disclosure requirements in terms of key assumptions, estimation uncertainty and risk exposure; and
- a large number of the accounting estimate hits may be found in the introduction and accompanying sections of standards.

The additional presentation and disclosure requirements in terms of accounting estimates and the added guidance on the recognition of accounting estimates may be seen as an indication of the importance of accounting estimates for both the preparers and users of financial statements. The only increase in allowed accounting estimates concerns fair value accounting. In the next paragraph the

occurrence of fair values in accounting standards will be discussed.

2.7 FAIR VALUES IN ACCOUNTING STANDARDS

From the previous paragraph it is clear that the calculation of fair values could, under certain circumstances, involve accounting estimates. To establish the occurrence of "fair values" in accounting standards, an electronic keyword search was conducted, making use of the South African Institute of Chartered Accountants' (SAICA) electronic handbook. The search was performed on the accounting standards for 2006, 2004 and 2003. The accounting standards of 2005 were omitted from the search; the reason being that standards in issue before 1 January 2005 are almost the same as the standards in issue during 2004, and the standards in issue after 1 January 2005 are almost the same as the standards in issue during 2006. The word used in the search was "fair value".

Appendix B contains a complete list, which indicates the number of "fair value" hits in each of the accounting standards for 2003, 2004 and 2006. The number of hits is an indication of the number of paragraphs in IFRSs, which contain the "fair value" keyword. If more than one of the above-mentioned keywords were found in a paragraph, the number of hits will be indicated as one. The hits also include hits within the Basis for Conclusions and the Implementation Guidance, which accompany some IFRSs but do not form part of the specific IFRSs. A summary of the total number of "fair value" paragraph hits for each of the three years is presented in Table 8 below.

Table 8: Number of "fair value" hits

Year	Total number of "estimate" hits (refer to Table 1)	Total number of "fair value" hits	Increase in "fair value" hits from one year to the next	Accumulated increases in "fair value" hits
2006	1 094	2 093	1 316	1 624
2004	603	777	308	308
2003	425	469	Not applicable	-

By comparing Table 8 which indicates the number of "fair value" paragraph hits with Table 1 that indicates the number of accounting "estimate" paragraph hits, it is clear that there are a larger number of paragraphs containing the words "fair value" than accounting "estimate". Table 9 below gives an indication of the standards with the highest number of "fair value" hits. Refer to Appendix B for a comprehensive summary of the number of "fair value" hits in each of the standards over three years.

Table 9: Standards with the highest number of “fair value” hits

Standard number:	Title	Number of hits		
		2006	2004	2003
IFRS 2 (AC139)	Share-based Payment	209	-	-
IFRS 3 (AC140)	Business Combinations	138	137	16
IFRS 4 (AC141)	Insurance Contracts	100	-	-
IFRS 7 (AC144)	Financial Instruments: Disclosures	98	-	-
IAS 36 (AC128)	Impairment of Assets	95	95	6
IAS 39 (AC133)	Financial Instruments: Recognition and Measurement	603	120	120
IAS 40 (AC135)	Investment Property	159	60	60
IAS 41 (AC137)	Agriculture	117	49	48
“Fair value” hits in above standards		1519	461	250
“Fair value” hits in other standards		574	316	219
“Fair value” hits in all standards (refer to Appendix B)		2093	777	469

The above-mentioned standards in Table 9 above represent 73% (1519/2093) of the “fair value” paragraph hits in 2006, 59% (461/777) of the “fair value” paragraph hits in 2004 and 53% (250/469) of the “fair value” paragraph hits in 2003. Of the 2003 “fair value” paragraph hits indicated for IFRSs: 2006 (refer to Appendix B), 603 (29%) are found in IAS 39 *Financial Instruments: Recognition and Measurement*. Note that of the 1094 accounting “estimate” paragraph hits indicated for IFRSs: 2006 (refer to Appendix A), 103 (9%) are found in IAS 39 *Financial Instruments: Recognition and Measurement*. As indicated in paragraph 2.6.4.4, IAS 39 gives further additional guidance on how to determine fair values.

Fair value is defined as the amount for which an asset may be exchanged, or a liability settled, between knowledgeable and willing parties in an arm’s length transaction ((IASB/SAICA 2005 – IAS 39(AC 133):par. 9). If there is no active market for the financial instrument, an entity establishes fair value by using valuation techniques. The objective is to establish what the transaction price would

have been on the measurement date in an arm's length exchange motivated by normal business considerations. The following valuation techniques are mentioned ((IASB/SAICA 2005 – IAS 39(AC 133): par. IN18):

- "A valuation technique (a) incorporates all factors that market participants would consider in setting a price and (b) is consistent with accepted economic methodologies for pricing financial instruments.
- In applying valuation techniques, an entity uses estimates and assumptions that are consistent with available information about the estimates and assumptions that market participants would use in setting a price for the financial instrument.
- The best estimate of fair value at initial recognition of a financial instrument that is not quoted in an active market is the transaction price unless the fair value of the instrument is evidenced by other observable market transactions or is based on a valuation technique whose variables include only data from observable markets".

From the above it may be deduced that if there is an active market for the particular financial instrument, no estimate is necessary because the price in the active market would comprise the fair value. It is when there is no active market that the fair value needs to be estimated. Since the objective of the study is to identify the accounting estimates that are allowed in the IFRSs, this is an important principle. Although fair value accounting, in the absence of an active market, may imply accounting estimates, the valuation techniques used to calculate fair values could become complicated and may be seen as a topic on its own.

A detailed analysis of fair value accounting does not form part of this study. Refer to Appendix C, which gives an indication per standard of allowed accounting estimates contained in the IFRSs, as well as when the calculation of fair values includes an accounting estimate.

As indicated in the above paragraphs a large number of accounting "estimate" paragraph hits forms part of the IFRSs and the main reason for an increase in

“estimate” paragraph hits is as a result of the increase in the requirement for fair value accounting. Although the number of accounting estimates did not increase substantially, the impact that accounting estimates may have on financial statements might be significant. A search through the IFRSs was conducted to give a better understanding of the occurrence and frequency of use of accounting estimates in financial statements. The frequency of use of accounting estimates will be discussed in the following paragraph.

2.8 FREQUENCY OF USE OF ESTIMATES IN FINANCIAL STATEMENTS

The first objective of this study is to examine the IFRSs with the purpose of identifying the accounting estimates that are allowed. This examination consists firstly of a comparison between IFRSs 2003, 2004, 2005 and 2006 to determine if there is a possible increase in allowed accounting estimates. In the above paragraphs it is concluded that although there is an increase in the number of allowed accounting estimates from IFRSs: 2003 to IFRSs: 2006 (refer to Table 1), the only real increase in allowed accounting estimates concerns new requirements in IFRSs for fair value accounting.. This does however, not imply that there are not a large number of accounting estimates required by the IFRSs. Comparing and counting the number of accounting “estimate” paragraph hits in IFRSs (as has been done in the above paragraphs of Chapter 2) is insufficient to satisfy the first objective. Therefore, the examination of the IFRSs consists secondly of a summary of all the paragraphs that contained accounting “estimate” hits with a reference to when accounting estimates are required and also if any guidance is given by IFRSs as to how the estimates should be made. If there is a possible risk that accounting estimates allowed by the IFRSs could be used to manipulate financial statements, the occurrence of accounting estimates in the IFRSs and frequency of use of accounting estimates in financial statements may be imperative to evaluate the possible risk.

In order to establish the occurrence of accounting estimates in the IFRSs the

electronic keyword search for accounting “estimates” that has already been done has been used. A total number of 1 094 accounting “estimate” paragraph hits within IFRSs: 2006 is indicated (refer to Table 1). Refer to Appendix A which gives an indication of the number of accounting “estimate” paragraph hits in each standard and refer to Appendix B which gives an indication of the number of “fair value” paragraph hits in each standard.

Since the largest number of accounting “estimate” paragraph hits (1 094) can be found in IFRSs: 2006, only the accounting estimates contained in IFRSs: 2006 are summarised in Appendix C. This summary provides an indication of the occurrence of allowed accounting estimates in the IFRSs and when the IFRSs requires accounting estimates. The summary also indicates if the standard gives guidance on how the accounting estimate should be made. Note that if the standard indicates that an accounting estimate needs to be made in order to calculate fair value, the requirement is also included in Appendix C.

In Appendix C all of the standards are summarised by referring to the specific paragraph number in the standard that allows or requires the accounting estimates. The summary also supplies some information on the nature of the allowed accounting estimate. In order to prevent the same accounting estimates being listed more than once, reference to accounting estimates within the Introduction, Basis of Conclusion and Implementation Guidance sections do not form part of the summary in Appendix C. IAS 1 (AC 101) *Presentation of Financial Statements* and IFRS 7 (AC 144) *Financial Instruments: Disclosures* deals with the presentation and disclosure requirements for accounting estimates and will be discussed in Chapter 4; therefore, this does not form part of Appendix C.

In order to gain a better perspective on the frequency of use of accounting estimates in financial statements, Appendix C has been used to list allowed accounting estimates for each of the components on the Balance Sheet. The illustrative Balance Sheet that is used forms part of the Implementation Guidance to IAS 1(AC 101) with some components added to this illustrative balance sheet. The

information is presented in Table 10 below.

Table10: Accounting estimates per component of the Balance Sheet

Component	Standard number	Allowed accounting estimate
Property, plant and equipment	IAS 16.14 IAS 16.16	Inspection cost: The estimated cost of a future similar inspection may be used. Dismantling cost: The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located forms part of the cost at recognition.
	IAS 16.51 IAS 16.33 IAS 36.6 and 9	Depreciable amount and depreciation period: The estimation of the useful life of the asset is a matter of judgment Depreciation method: Selection of the depreciation method of assets is a matter of judgment. Revaluation model: If there is no market-based evidence of fair value of the item of property, plant and equipment an entity may need to estimate fair value. Estimate the recoverable amount of the asset if there is an indication of impairment. The recoverable amount is the higher of the estimated value in use and the estimated fair value less cost to sell.
Investment property	IAS 40.46	Fair value model: Measurement at most reliable estimate of fair value in the absence of current prices in an active market

Goodwill	<p>IFRS 3.51</p> <p>IFRS 3.54</p> <p>IFRS 3.33</p>	<p>Initially measures goodwill at its cost, being the excess of the cost of the business combination over the acquirer's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities.</p> <p>After initial recognition, the acquirer shall measure goodwill acquired in a business combination at cost less any accumulated impairment losses.</p> <p>Estimates the adjustments to the cost of a business combination that is contingent on future events.</p>
Other intangible assets	<p>IAS 38.93</p> <p>IAS 38.8</p> <p>IAS 38.104</p> <p>IAS 38.35</p>	<p>Uncertainty justifies estimating the useful life of an intangible asset on a prudent basis.</p> <p>The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal.</p> <p>Changes to the amortisation period and amortisation method shall be accounted for as changes in accounting estimate.</p> <p>Measures the fair value of an intangible asset acquired in a business combination is an estimate.</p>
Gross investment in lease	IAS 17.41	Estimate the unguaranteed residual value.
Available-for-sale investments	<p>IAS 39.46</p> <p>IAS 39 (AG 74 and 75)</p>	<p>After initial recognition, an entity shall measure financial assets at their fair values, without any deduction for transaction costs it may incur on sale or other disposal.</p> <p>If the market for a financial instrument is not active, an entity establishes fair value by using a valuation technique. Fair value is estimated on the basis of the results of a valuation technique that makes maximum use of market inputs, and relies as little as possible on entity-specific inputs.</p>

Biological assets	IAS 41.12	A biological asset shall be measured on initial recognition and at each balance sheet date at its fair value less estimated point-of-sale costs.
Inventories	IAS 2.6	Inventories are carried at the lower of cost or net realisable value. Net realisable value equals the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.
Trade receivables	IAS 18.20	Revenue on the rendering of services is recognised when the outcome can be estimated reliably.
Other current assets		
Uncertified contract revenue	IAS 11.28 IAS 11.30	Contract revenue shall be recognised by reference to the stage of completion of the contract activity at the balance sheet date. The stage of completion may be calculated as the proportion of contract costs incurred for work performed to date to the estimated total contract costs.
Non-current assets classified as held for sale	IFRS 5.15	An entity shall measure a non-current asset (or disposal group) classified as held for sale at the lower of its carrying amount and fair value less costs to sell.
Cash and cash equivalents		-
Share capital	IFRS 2.17	Estimates the fair value of equity instruments granted under share-based payment.
Other reserves		-
Retained earnings		-
Minority interest		-
Long-term borrowings	IFRS 2.30	For cash-settled share-based payment transactions, the entity shall measure the goods or services acquired and the liability incurred at the fair value of the liability.

Deferred tax	IAS 12.68B	Share-based payment transactions: If the amount the taxation authorities will permit as a deduction in future periods is not known at the end of the period, it shall be estimated.
Long-term provisions	IAS 37.36	The amount recognised as a provision shall be the best estimate of the expenditure required to settle the present obligation at the balance sheet date.
Trade and other payables	IAS 18.17	Revenue is recognised on sale of goods and an estimate of future returns is recognised as a liability.

The above paragraphs, which deal with the use of estimates in the balance sheet, together with Appendix C, give an indication of the occurrence of allowed accounting estimates contained in IFRSs: 2006 and the frequency of use of accounting estimates in financial statements. A better understanding of the nature of accounting estimates is important because it can be helpful with the evaluation of a possible risk that accounting estimates could be used to manipulate financial statements. In the following paragraph the nature of accounting estimates is dealt with.

2.9 THE NATURE OF ACCOUNTING ESTIMATES.

From Table 10 (above) it is clear, to a significant extent, that the components on the balance sheet are influenced by accounting estimates. This being the case and the fact that financial accounting uses the double entry system mean that the income statement (also referred to as the "statement of comprehensive income") will also be affected by accounting estimates in an indirect manner.

The nature of accounting estimates is discussed in IAS 540 *Audit of Accounting Estimates* where it is indicated that "these estimates are often made in conditions of uncertainty regarding the outcome of events that have occurred or are likely to occur and involve the use of judgement. The determination of an accounting

estimate may be simple or complex depending upon the nature of the item. For example, accruing a charge for rent may be a simple calculation, whereas estimating a provision for slow-moving or surplus inventory may involve considerable analyses of current data and forecasts of future sales. In complex estimates, there may be a high degree of special knowledge and judgement required. Accounting estimates may be determined as part of the routine information accounting system relevant to financial reporting operating on a continuing basis, or may be non-routine, operating only at period end. In many cases, accounting estimates are made by using a formula based on experience, such as the use of standard rates for depreciating each category of fixed assets or a standard percentage of sales revenue for computing a warranty provision. In such cases, the formula needs to be reviewed regularly by management, for example, by reassessing the remaining useful lives of assets or by comparing actual results with the estimate and adjusting the formula when necessary" (IAASB/PAAB 2006 – ISA 540:par. 5 - 6).

From the above paragraph the nature of accounting estimates may be explained and perhaps better understood by the following summary:

- conditions of uncertainty – accounting estimates are not exact amounts, because they are based on outcomes that are unknown;
- determination may be simple or complex – some accounting estimates are easier to calculate than others, and are influenced by the available information;
- based on experience – information of previous, similar accounting estimates is necessary;
- special knowledge – because of the complexity of some accounting estimates particular know-how of a field or subject that necessitates an accounting estimate is necessary; and
- judgement – accounting estimates always involve some guessing.

Seeing that the nature of accounting estimates is a grey area, David (2004:80) is of the opinion that executives have a tremendous opportunity to manipulate the numbers through their accounting estimates. Bearing in mind the vast number of

accounting estimates allowed and required by the IFRSs (refer to Appendix C) and the manipulation opportunities created by them, the obvious question is: why does such flexibility in terms of measurement of components that form part of financial statements exist?

Mulford and Comiskey (2002:26) ask the same question. They conclude that there are valid reasons for flexibility in the measurement of components and that the existence should not result in misleading financial statements. The flexibility should not be used to manipulate financial statements and to mislead the users; rather, entities should make use of it to provide a fair presentation of their financial results and financial position.

2.10 CONCLUSION

In terms of the first objective of this study, namely to examine the IFRSs with the purpose of identifying allowed accounting estimates, it may be concluded that:

- no substantial proof for a large increase in allowed accounting estimates from IFRSs: 2003 to IFRSs: 2006 could be found;
- the increases in allowed accounting estimates that were found is a result of standards that require more fair value accounting;
- in the absence of current prices in an active market for a particular financial instrument or other component that needs to be fair valued, IFRSs requires measurement at the most reliable estimate of the fair value;
- allowed accounting estimates often occur within the IFRSs and the measurement of components of financial statements are frequently influenced by accounting estimates; and
- because accounting estimates are based on outcomes that are unknown, they are not exact amounts.

Taking into account the occurrence of allowed accounting estimates in the IFRSs and the nature of accounting estimates, it is important to explore the risk of accounting

estimates being used to manipulate financial statements. In the next chapter (Chapter 3) the risk of the manipulation of financial statements through the use of accounting estimates is examined.

CHAPTER 3

CREATIVE ACCOUNTING

3.1 INTRODUCTION

In Chapter 2 it was indicated that not all amounts on financial statements are exact; some could be estimates. Using different assumptions and judgements, different accounting estimates can be calculated that may be seen as “creative”. The use of different assumptions to get to the “correct” answer could, in turn, have an influence on earnings. The purpose of this chapter is to review the literature on the nature of earnings management and creative accounting to explore the possibility that accounting estimates may be used to manage earnings or lead to creative accounting.

Firstly, the different definitions for earnings management and creative accounting will be discussed, as well as whether these terms are used as synonyms. In order to answer the question as to why creative accounting is used, the conditions, motivation and incentives for creative accounting are explored. Furthermore, creative accounting practices that involve accounting estimates and some evidence of creative accounting are examined. The relationship between creative accounting and fraud is also explored. Lastly, the consequences, positive or negative, of the use of creative accounting are discussed.

3.2 DEFINING EARNINGS MANAGEMENT AND CREATIVE ACCOUNTING

Earnings management or creative accounting has been defined by a number of authors and from these definitions it may be concluded that creative accounting is not easily defined. A number of definitions are given below:

- “Earnings management is the active manipulation of earnings toward a predetermined target, which may be set by management, a forecast made by

an analyst, or an amount that is consistent with a smoother, more sustainable earnings stream” (Mulford & Comiskey 2002:3).

- According to Baralexis (2004:440) “creative accounting or earnings management is defined as the process of intentionally exploiting or violating the Generally Accepted Accounting Practice (GAAP) or the law to present financial statements according to one's interests.”
- Naser (as quoted by Blake *et al.* 2000:137) defines creative accounting as follows: “Creative accounting is the transformation of financial accounting figures from what they actually are to what preparers desire by taking advantage of the existing rules and/or ignoring some or all of them”.
- Shah (1998:83) is of the opinion that “Creative accounting can be understood as the process by which management take advantage of gaps or ambiguities in accounting standards to present a biased picture of financial performance. It does not breach the letter of the law or rules, but may breach its spirit”.
- “Earnings management occurs when management use judgement in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers” (Healy and Wahlen 1999:368).

From the above definitions it is clear that all of the definitions involve some action, within the context of financial reporting, with the purpose of reaching a desired outcome. The above definitions are summarised in Table 10 below:

Table 11: Definitions of earnings management and creative accounting

Author:	Action:	Making use of:	Outcome:
Mulford & Comiskey	Manipulation	None mentioned	Predetermined target of earnings
Baralexis	Intentionally exploiting or violating	GAAP or the law	Presents financial statements according to one's interests.
Naser (as quoted by Blake <i>et al.</i>)	Transformation	Existing rules	Desired financial accounting figures
Shah	Take advantage	Gaps or ambiguities in accounting standards	Presents a biased picture of financial performance
Healy and Wahlen	Alter financial reports	Management use judgment in financial reporting	Misleads some stakeholders or influences contractual outcomes

It is interesting to note that four of the five authors are of the opinion that earnings management or creative accounting is possible because of some utilisation of accounting standards. The definition of Healy and Wahlen specifically mentions judgement, one of the characteristics of accounting estimates, being used to mislead stakeholders.

It may be concluded that earnings management or creative accounting has the same meaning and involves an act, by making use of the flexibility within the IFRSs (in a South African context), to alter the reported financial information in order to achieve a predetermined earnings figure.

Referring to the actions involved, Rezaee (2002:91) is of the opinion that most

earnings management practices are legitimate and are required under certain conditions by the IFRSs. Illegitimate earnings management however, involves the deliberate manipulation of the accounting figures. According to Dechow and Skinner (2000:238) it is difficult to apply these definitions and to identify creative accounting practices since they centre on managerial intent, which is unobservable. McBarnet and Whelan (1999:99) maintain that one person's creative accounting is another's professional estimate. However, by referring to the outcome of the above definitions of creative accounting or earnings management, it seems as if all five authors perceive it to be a disreputable practice.

At this point it is important to explore the difference, if any, between earnings management and creative accounting. Authors from the USA are more likely to use "earnings management" and authors from the UK and Europe are more likely to use "creative accounting". Although two of the above five definitions refer to earnings management, two of the five to creative accounting and one to both, it seems as if the outcome (refer to Table 10 above) of all five definitions is more or less the same. Mulford & Comiskey (2002:3) define creative accounting practices as all steps including the aggressive choice and application of accounting principles, fraudulent financial reporting, and any steps taken toward earnings management or income smoothing. From this definition it seems that creative accounting is used as a broader term than earnings management. The term creative accounting will therefore rather be used in this study, implying not only earnings management but all steps that lead to the manipulation of financial statements.

From the above it may be concluded that the term creative accounting includes earnings management. Both creative accounting and earnings management make use of the flexibility in measurement allowed by the IFRSs. It is therefore difficult to identify creative accounting because managerial intent plays an important role. From the different definitions given for creative accounting and earnings management it seems as if it is an undesirable practice. Hillier & McCrae (1998:78) are of the opinion that accounting numbers should represent economic values and should faithfully represent just that. Creative accounting is therefore inherently

undesirable.

Having a better understanding of the definition of creative accounting, leads to the following questions:

- why is creative accounting practised; and
- which practices are used?

In order to answer the first question why creative accounting is practised, the conditions and motivation for creative accounting are examined in the following paragraphs.

3.3 CONDITIONS AND MOTIVATION FOR CREATIVE ACCOUNTING

The conditions that allow creative accounting should be distinguished from the conditions that motivate creative accounting practices. As noted from the definitions of creative accounting, the basic underlying condition for the practice of creative accounting is the IFRSs itself. In the next paragraph the IFRSs as an underlying condition for creative accounting is discussed.

3.3.1 IFRSs as an underlying condition for creative accounting

The IFRSs allows a large number of accounting estimates (refer to Chapter 2). The nature of accounting estimates is that the amount calculated for a specific component reflected on the financial statements is not an exact figure. According to Mulford and Comiskey (2002:64, 26) areas of flexibility within the IFRSs could imply areas of creative accounting. Instead of using flexibility for fair presentation, accounting principles are selected and applied in an aggressive and purposeful manner. Shah (1998:92) contends that where management have some freedom in making accounting policy choices, it is likely that their decisions will be influenced by the performance criteria by which they are assessed. The flexibility in accounting policy choices also gives rise to more scope for creative accounting (Blake *et al.* 2000:138).

Because the IFRSs is an underlying condition for creative accounting, it is the view of Baralexis (2004:440) that there are two kinds of creative accounting: the legitimate, and the illegitimate. Nelson *et al.* (2003:17) distinguish between earnings management that is consistent with GAAP (being difficult to distinguish from GAAP) and earnings management that is clearly not GAAP. It is often difficult to distinguish creative accounting from the reasonable exercise of business judgement. Accounting standards allow for a difference between the accounting estimates and reality (Collingwood 2001:74). It seems that by making use of allowed accounting estimates the "story" that the financial statements tell which should be non-fiction based on the truth may be bent so that it becomes fiction.

With respect to the above, the question could be asked why flexibility is allowed within the IFRSs if there is a risk that it could be used to manipulate financial information. Healy and Wahlen (1999:366) are of the opinion that financial reports should convey a manager's knowledge about the entity. According to them, accounting standards should permit managers to make judgements and by so doing, communicate information to the users of financial statements that could potentially increase the value of accounting.

The former Securities and Exchange Commission (SEC) chairman, Arthur Levitt, justifies the use of flexibility in accounting standards with the following observation: "Flexibility in accounting allows it to keep pace with business innovations. Abuses such as earnings management occur when people exploit this pliancy. Trickery is employed to obscure actual financial volatility" (Levitt 1998:16).

McBarnet and Whelan (1999:39) note that in the UK, which uses the IFRSs to prepare financial statements, there is an emphasis on principles rather than on rules. They maintain that principles are seen as the only way to capture the complexity of accounting. It should be noted that according to Baker and Hays (2004:768) the IFRSs emphasises a principle-based approach to accounting standard setting more than US GAAP, which is more rule-based.

From the above it may be deduced that the IFRSs, for good reason, allows for flexibility and this in turn, is a satisfying condition for creative accounting. What is important for this study is that accounting estimates, being largely discretionary in nature, imply an area of flexibility in the IFRSs. No presumption is made at this stage that accounting estimates would be outside the flexibility bounds of the IFRSs. The IFRSs does not motivate the use of flexibility to a point of misleading the users of financial statements. In the next paragraph the conditions that motivate the use of creative accounting are examined in order to answer the question of why creative accounting is used.

3.3.2 Motivation and incentives for the practice of creative accounting

In order to fully understand the practice of creative accounting, it is important to comprehend the motivation and incentives that lead to creative accounting. If the users of financial statements have knowledge of the existence of these pressures, they have the opportunity to take it into consideration and adjust their decisions accordingly (Duncan 2001:37). A number of authors have identified motivators for creative accounting and some of their findings are discussed below.

Clikeman (2003:76) identifies the following situations and pressures that motivate managers to practise creative accounting:

- entities whose earnings are in danger of falling below analysts' forecasts and market expectations;
- entities who experience unusually strong earnings would like to smooth their income; and
- contractual motives; for example, bonus plans are based on accounting information.

Nelson *et al.* (2002:176) are also of the opinion that managers' creative accounting attempts are motivated by a variety of conditions. The need to meet analysts' estimates and to smooth income or improve income is mentioned amongst others. Additionally, compare Healy and Wahlen (1999:371) who refer to a study performed

by Burgstahler and Eames (1998) that found that managers take actions to manipulate earnings upward to meet analysts' expectations.

According to Du Plessis (1999:2) there are various pressures that may motivate management to resort to creative accounting:

- if an entity disappoints the market, it could have a negative effect on the share price of the entity;
- the deterioration in the earnings of an entity may affect bonuses and share options of management; and
- not meeting profit expectations may influence the price of take-overs, rights issues and delay capital projects.

Duncan (2001:34 - 36) mentions that pressures for creative accounting may arise as a result of external forces, such as the culture of the company and personal factors. Under each of the above headings some of the pressures are mentioned:

- External forces:
 - Analysts' forecasts – entities that fail to meet analysts' estimates can expect a drop in their share prices.
 - Competition – entities may want to maintain an edge in revenues or market share.
- Company culture:
 - Management compensation – executive share options and bonus plans that are tied to earnings could be a powerful incentive for creative accounting.
 - Excessive profit followed by fear of decline – reserves being used to smooth earnings in future, during less profitable periods.
- Personal factors:
 - Personal bonuses – executive compensation policies are frequently based more on incentives, than on base salary.
 - Low regard for auditors – managers believe that they can manipulate earnings and that their auditor will not detect it.

Capital market incentives may also motivate creative accounting practices. It is indicated by a study by Skinner and Sloan (as quoted by Dechow and Skinner 2000:244) that when small earnings disappointments (relative to analysts' forecasts) are reported, these entities suffer disproportionate large share price declines. It could be expected that managers would take steps to avoid such earnings news. This could be more so if management's wealth, in terms of shares owned in the entity or share options, is tied to the share price of the entity.

From the above-mentioned motivators for creative accounting, there are three that are most evident, namely:

- meeting market expectations;
- income smoothing; and
- bonus and share options of managers.

The reasons why the above motivate creative accounting are discussed below.

All of the above authors note "meeting market expectations" as one of the possible motivators for creative accounting. According to Holland and Ramsey (2003:43) this is because the earnings figure is used as a key performance indicator and features high on the list of entities strategic objectives. Entities with steadily growing income streams are being rewarded by financial markets (Kokosza 2003:64). The incentive for meeting market expectations could be the avoidance of a potentially sharp drop in share price.

Next on the evident list of motivators is income smoothing. In periods of strong financial performance, entities may hide earnings in a "cookie jar" by overstating reserves, over accruing expenses, and using one-time write-offs. In periods of under financial performance, the cookie jar accruals and reserves are reversed to increase earnings (Kokosza 2003:64). The incentive for income smoothing could be to avoid an improper market response to earnings being temporarily off trend (Mulford & Comiskey 2002:61).

Lastly, bonuses and share options of managers may lead to creative accounting

practices. Hwang and Baker, as quoted by Hwang and Staley (2005: 227) hold the view that Chief Executive Officers (CEOs) and Chief Financial Officers (CFOs) betray their fiduciary duties by not acting for the benefit of shareholders but for their own personal gain. The executives who own the majority of options will benefit the most in increases in the entity's share price.

"Expected rewards earned by those who play the financial numbers game may be many and varied. Often the desired reward is an upward move in the firm's share price. For others, the incentive may be a desire to improve debt ratings and reduce interest costs on borrowed amounts. An interest in boosting a profit-based bonus may drive some" (Mulford & Comiskey 2002:2). Descriptive data about incentives for creative accounting attempts indicated that 56% of all attempts are share-market-related incentives (Nelson *et al.* 2002:189).

From the above it seems as if creative accounting practices may mainly be motivated by market expectations, based on smoothed earnings that have the incentive of maintained share prices. Increased share prices also benefit executives with share options. From the literature review, it is therefore clear that there is some motivation and incentives for creative accounting practices. In the following paragraph the different creative accounting practices are highlighted.

3.4 CREATIVE ACCOUNTING PRACTICES

The IFRSs and the flexibility inherent to accounting estimates are identified as a possible satisfying condition for creative accounting. Add to this the motivation and incentives for creative accounting and the practice of creative accounting becomes a possibility. The literature reviewed revealed a number of different creative accounting practices. Since the objective of the study deals with the effect of accounting estimates on financial statements, the practices mentioned below will be limited to those involving accounting estimates.

Creative accounting may be practised through entities' accounting decisions. The

following are examples (Clikeman 2003:76):

- estimates of asset valuation accounts, such as the allowance for uncollectible accounts and the inventory obsolescence account;
- accruing larger or smaller liabilities for items such as warranties, environmental cleanup costs and corporate restructuring costs;
- reported expenses may be influenced through assumptions and estimates such as the assumed rate of return on pension plan assets and useful lives of property, plant and equipment; and
- reported income may be affected by an entity's choice of depreciation method and method of accounting for employee stock options.

According to Sherman and Young (2001:131) game-playing around creative accounting occurs within six accounting minefields:

- revenue measurement and recognition;
- provisions for uncertain future cost;
- asset valuation;
- derivatives;
- related-party transactions; and
- information used for benchmarking performance.

Two of the six minefields involve accounting estimates and are briefly discussed. The first minefield is the provision for uncertain future cost. Examples listed are losses from inventory obsolescence, uncollectible amounts, product returns and restructuring costs. Accounting estimates may also be used to inflate or to create hidden reserves and to diminish or enhance reported profits. The second minefield mentioned by Sherman and Young that involves accounting estimates, is asset valuation. Assets are generally carried at cost less accumulated depreciation and accumulated impairment losses. Depreciation requires an estimate of the useful life of the asset and an estimate of the amount to be obtained from the disposal of the asset, the so-called residual value. The useful life and residual value variables create opportunities for manipulation.

Gulliver (2003:17 - 18) also mentions a number of creative accounting practices that involve accounting estimates, which are listed below:

- maintaining inadequate reserves for inventory or bad debts;
- using a low depreciation rate for assets; and
- taking write-offs for in-process research and development costs.

David (2004:82) is also of the opinion that the way companies account for bad debts can influence earnings. Earnings will of course be higher, the lower the estimate for bad debts is. In essence, companies guess how much money owed by debtors is unlikely to be paid by them. David also mentions that the costs estimated for inventory that will be obsolete before they can be sold, may influence earnings.

Another creative accounting practice which is mentioned by Kokosza (2003:64) is the so-called "big bath". In periods of strong financial performance, entities can reduce earnings by overestimating one-time restructuring charges. This kind of overestimating is commonly known as "big bath" charges. Earnings often shine in the wake of restructuring because of the excess on the restructuring reserve being channelled back to earnings.

From the above literature study a number of possible creative accounting practices involving accounting estimates is evident. Although these creative accounting practices are being identified from the literature based on US accounting, as well as UK accounting, all of the above examples of creative accounting practices that involved accounting estimates, can be found in the summary of allowed accounting estimates within the IFRSs (Appendix C) that is used by South African entities. Some of these accounting estimates are discretionary by nature and may imply possible creative accounting practices. Note that the items in Appendix C are presented neutrally in terms of whether they exceed the boundaries of flexibility in the IFRSs.

From the above literature study it may be concluded that some allowed accounting estimates are closely linked with the possibility of creative accounting. This

knowledge is important to the users of financial statements; firstly, because of the large number of accounting estimates allowed by the IFRSs (refer to Appendix C) and secondly, it could increase awareness and identification of creative accounting practices.

Identifying the possible creative accounting practices is however, not an indication that creative accounting is being practised. Before any conclusions on accounting estimates being used as a creative accounting tool can be made, evidence of the existence of creative accounting is important. In the following paragraph evidence of the existence of creative accounting is discussed.

3.5 EVIDENCE OF THE EXISTENCE OF CREATIVE ACCOUNTING

Paragraphs 3.3 and 3.4 identified conditions and motivations for creative accounting and possible creative accounting practices. In order to prove the existence of creative accounting, the study relies on historical evidence. Enforcement actions by the USA's Securities and Exchange Commission (SEC), recent financial disasters and academic research on creative accounting are scrutinised to provide evidence for the existence of creative accounting.

3.5.1 Evidence from the SEC

In the USA the number of enforcement actions by the SEC provides some concrete evidence for the existence of creative accounting (Mulford & Comiskey 2002:68). According to Mulford and Comiskey (2002:71) this evidence is based on enforcement cases, which includes testimonies and documentation. They give some examples of so called "abusive" earnings management. These examples are provided in the Accounting and Auditing Enforcement Release (AAERs) of the SEC. Table 11 represents a sample of the list provided by Mulford and Comiskey (2002:67-70). The examples listed in Table 11 below are limited to those that involved accounting estimates as part of abusive earnings management.

Table 12: USA example of earnings management that involves accounting estimates

Company	Year of abuse	Nature of earnings management
Cendant Corporation	2000	Understated reserves and reversed reserves into earnings
First Merchants Acceptance Corp.	1999	Understated its allowance for credit losses by misrepresenting the payment status of the accounts
Hybrid/ Ikon, Inc	2000	Improperly recognised sales transactions that provided a right of return.
Informix Corp.	2000	Recognised revenue on transactions granting rights to refunds.
Pepsi-Cola P.R.	1999	Understated allowances for sales discounts.

Note that for all of the above cases the year of abuse is prior to some big financial scandals in the USA. According to Deakin and Konzelmann (2004:134) these big financial scandals were a main driver for change in company law in the USA. The US Congress adopted the Sarbanes-Oxley Act in the USA summer of 2002. In the next chapter (Chapter 4) the recent changes in respect of requirements for the role players in the corporate reporting supply chain that may have the effect of preventing and detecting creative accounting are discussed in more detail.

3.5.2 Evidence from recent financial disasters

Recent financial disasters give some proof of the use of creative accounting. The purpose is not to give a full account of the reasons for the financial disasters, but only a short summary. All of the entities mentioned below used some form of creative accounting or entered into fraudulent activities. It is also important to note that all of the creative accounting practices mentioned did not involve accounting estimates.

3.5.2.1 Enron Corporation

Rezaee (2002:48) identifies the cause for the collapse of Enron, amongst others, as the overstating of earnings, the understating of debts and losses and the overstating of equity. This was possible through the use of Special Purpose Entities (SPEs) that need not be consolidated in terms of US GAAP at that stage. A consequence of this financial fraud is a loss of more than \$80 billion in market capitalisation.

3.5.2.2. WorldCom Inc.

According to Kokosza (2003:64-65) a most prominent example of creative accounting, which involves accounting estimates, is WorldCom Inc. They made use of cookie jar reserves. These reserves were made during periods of strong financial performance to cover the estimated cost of future events. Once the cost of the event is incurred, any excess reserves are allocated back to earnings. In WorldCom's case improperly recognised reserves totaled \$2,5 billion which relate to litigation, uncollectible receivables and taxes.

3.5.2.3 Parmalat

At the end of 2003 another big corporate disaster unfolded, but this time in Europe. Parmalat was declared insolvent and eventually charged with financial fraud and money laundering. Among the questionable accounting practices used, Parmalat borrowed money from banks that granted the loans based on inflated revenues. Revenues were inflated by fictitious sales based on the double billing of clients. The debt was then transferred to shell companies based in offshore tax havens (Gumbel 2004:1-3).

3.5.2.4 Leisurenet

A South African company that was declared insolvent through of the use of creative accounting is Leisurenet. Leisurenet recognised income on long-term contracts

although the services were not rendered. A forced change in accounting policy, concerning revenue recognition changed a reported profit of R109,5 million into a more realistic loss of R46,8 million (Basson 2001:10).

3.5.3 Evidence from academic research

Academic research also provides some evidence that creative accounting exists. Both descriptive studies and statistical studies provide evidence of creative accounting. Beneish (2001:5) distinguishes between three approaches being used by academics to study creative accounting:

- aggregate accruals are studied and regression models are used to calculate expected and unexpected accruals;
- specific accruals are focused on, or accruals in a specific sector; or
- discontinuities in the distribution of earnings are studied.

As mentioned before it is difficult to distinguish between practices allowed by the IFRSs and creative accounting practices if the difference is the intention of management. For this reason the study of creative accounting is a complicated matter. Some previous studies have found evidence of creative accounting and some have not. A few of these studies are highlighted below.

- In a study performed by Nelson *et al.* (2002:176) results of descriptive analyses indicates that creative accounting attempts occurred in numerous accounting areas, including revenue recognition, business combinations, intangible assets, property, plant and equipment, investments and leases. According to Nelson, reserves by far, involved the most frequently identified attempts.
- Beneish (as quoted by Beneish 2001:10) finds some evidence linking creative accounting with insider trading. He found that managers of entities with overstated earnings are more likely to sell their share holdings. He argues that managers, being informed traders, use their knowledge about earnings

overstatements and then trade for their own benefit.

- Statistical evidence of a 1999 study performed by Zeckhauser, Degeorge and Patel, as quoted by Collingwood (2001:67) suggests that many companies manage their earnings to satisfy Wall Street's expectations. It is documented that there is a large number of cases where analyst forecasts are exactly met or just beaten. There are an unusually small number of near misses (Dechow and Skinner 2000:243). According to Beneish (2001:11) there is more pervasive evidence of income increasing creative accounting than income decreasing creative accounting.
- In a study performed by Hillier and Mccrae (1998:75 - 86) the earnings smoothing potential of systematic depreciation was examined. Their concern was with how much and under what circumstances earnings can be smoothed through depreciation. The influence of depreciation operates through the choice of the depreciation method, guesses of disposal values and useful lives. According to them the choice between the depreciation methods made little difference in terms of effective smoothing. The forecast of asset-useful lives and disposal values could have substantial smoothing potential, with the effectiveness, to some extent, dependent on the ratio of acquisition to disposal values.
- Asset write-downs were investigated in a study by Rees, Gill and Gore (1996:157 - 169). According to them managements' estimates of fair value could determine the amount of the asset write-down. They wanted to assess whether entities engage in earnings management in the year of the write-down. The conclusion from their study, according to them, contrasted with that of the financial press concerning the potential use of write-downs in earnings management. They found that the write-down draws attention to poor operating performances and that it is an appropriate response by management to changes in the firm's economic environment.

According to Healy and Wahlen (as quoted by Dechow and Skinner 2000:241) academic evidence of creative accounting is sometimes difficult to find, partly because of the measurement difficulties, given that the IFRSs require accounting estimates under certain conditions. Nelson *et al.* (2002:176) also quotes Healy and Wahlen according to whom accounting research has not provided much evidence about the characteristics of accounting standards that encourage earnings management or the extent to which the financial reporting process discourages earnings management.

From the five studies mentioned above, four could find evidence of the practice of creative accounting. Taking this into account, as well as the motivations, incentives and the fact that management will probably try to hide creative accounting, it may be concluded that creative accounting, although sometimes difficult to detect, does exist. Changes to requirements on the corporate reporting supply chain, indicates that creative accounting is perceived as a possible problem in the supply of reliable financial information. These changes will be dealt with in the following chapter (Chapter 4).

Recent financial disasters and some enforcement actions taken by the SEC provide strong evidence that accounting estimates are used to manipulate financial statements. In the case of financial disasters, the creative accounting practices were discovered when it was too late for the users of financial statements to change their minds on the available financial information. A question may therefore be asked if the users of financial statements should not be able to identify these creative accounting practices and align their decisions accordingly. In the next paragraph the responsibility of the users of financial statements in terms of the unmasking of creative accounting is discussed.

3.6 CAN USERS IDENTIFY CREATIVE ACCOUNTING PRACTICES?

Creative accounting practices have been verified from a number of different sources.

These practices should not pose a high risk to the users of financial statements if they can identify and correctly analyse and adjust the financial effect of such creative accounting practices. According to Dechow and Skinner (2000:242) creative accounting should not be problematic if the users of financial statements are aware of it and if they are reasonably sophisticated in their information processing capabilities. They will then be able to make adjustments to undo these practices to arrive at what they see as appropriate accounting.

If the purpose of creative accounting is to deceive, it can be expected that it will not be easily identifiable. According to Dechow and Skinner as quoted by Nelson *et al.* (2002:176) the definition of creative accounting hinges fundamentally on managerial intent, which is difficult to assess. Mulford and Comiskey (2000:71) are of the opinion that because of the creativity involved, the collusion and the apparent willingness to risk, it becomes very difficult to detect creative accounting. There are indeed some incentives for managers to apply creative accounting, but they are likely to do so in a way that is difficult to detect, and this in itself weakens the power of any research results (Beneish 2001:7).

Healy and Wahlen (1999:374) argue that even clever analysts may not always identify creative accounting practices. It is only possible to detect creative accounting if financial statements clearly display information on the manipulated item. Disclosure therefore may give valuable information to reveal possible creative accounting practices to the users of financial statements. Additional information on elements in financial statements forms part of disclosure, which is prescribed by the IFRSs. The disclosure requirements that could be helpful in the detection of creative accounting are discussed in Chapter 4.

The identification of creative accounting practices may also be influenced by the change, over a number of years, to the compensation structure of senior management. According to Fridson (2003:1), during the 1990s senior management's compensation was based on their entity's reported earnings. Managers therefore had an incentive to manipulate earnings. This could be done,

for example, by lengthening the estimated depreciable lives of assets. The effect of this would be a rise in reported earnings but in no change in cash flow. Since there is no change in cash flow, the experienced investors would be able to detect the fictitious improvement to reported earnings by referring rather to cash flows, and the result would be that the share price would not increase because the market would not be fooled. These days senior management's compensation is based on increases in the share price and management has to dupe the market in order to enrich themselves. Managements' goal would therefore be to participate in share price appreciation through substantial ownership of share options. The dark side to this is that financial statements may be manipulated in ways that are not transparent to investors. An illusory increase in profits should somehow be converted into a genuine rise in the share price.

It may be concluded that with sophisticated knowledge on the workings of financial statements, some of the creative accounting practices could be identified and the users could act accordingly. Other creative accounting schemes are, however, not easy to identify and the users will be deceived. The consequences of this possible deception are examined in the next paragraph to give an answer to whether creative accounting is always harmful.

3.7. CONSEQUENCES OF THE USE OF CREATIVE ACCOUNTING

From the above paragraphs, especially paragraph 3.5.2, that deal with the evidence from recent financial disasters, it is clear that the consequences of creative accounting are undesirable in many instances. It is important to explore the consequences of the use of creative accounting to confirm this.

Hillier & Mccrae (1998:76) contend that creative accounting is inherently undesirable. It supposedly reduces the usefulness of financial statements by distorting the representation of economic performance. According to Clikeman (2003:76, 77) creative accounting can lead to serious long-term problems, including:

- reduced company value – creative accounting decisions taken to influence short-term earnings may hurt the long-term economic health of the entity;
- eroded ethical standards – even if creative accounting practices do not violate IFRS, they are an ethically questionable practice. Creative accounting is a slippery slope with minor accounting gimmicks which become more aggressive until they create material misstatements in the financial statements;
- concealed problems at operating units – creative accounting may be practised at lower levels and operating problems may be concealed from top management; and
- sanctions and restatements – creative accounting may become very costly if fines are imposed. Requiring the restatement of financial statements may also be very costly in terms of market value.

The former Chairman of the SEC, Mr. Levitt (1998:14) strongly positioned himself against the practice in a speech at the dedication of the New York University Center for Law and Business. He said, “too many corporate managers, auditors and analysts are participating in a game of nods and winks. In the zeal to satisfy consensus earnings estimates and project a smooth earnings path, wishful thinking may be winning the day over faithful representation”. He also said, “there is a grey area where accounting is being perverted, where managers are cutting corners, and where earnings reports reflect the desires of management rather than underlying the financial performance of the company.” Mulford and Comiskey (2002:65) are of the opinion that beyond the grey area there is a black area, where creative accounting is carried beyond the limits of the flexibility inherent in the application of IFRSs, into the realm of alleged fraudulent financial reporting.

Taking the detrimental consequences of financial disasters such as Enron and Parmalat into account, it is as if the words of Mr. Levitt became a self-fulfilling prophecy. It is in this “grey area” where financial accounting is moved from non-fiction to fiction. A Financial Executive International report indicates that the US stock market lost \$34 billion during 2000 when the accounting irregularities at

Lucent Technologies, Cendant and MicroStrategy surfaced. SEC documents indicate that all three entities started their fraudulent practices by smoothing earnings to meet earnings forecasts and analysts' expectations (Magrath and Weld 2002:51).

From the above it is apparent that creative accounting is, most of the time, an undesirable practice. If creative accounting is an undesirable practice, the question may be asked whether the practice of creative accounting implies fraud. In the next paragraph, creative accounting will be compared with financial statement fraud to give a better understanding of a possible relationship with, and the ultimate consequences of, creative accounting.

3.8 FRAUDULENT FINANCIAL REPORTING

The effect of creative accounting on the balance sheet could be that the amounts are becoming less of a reflection of the financial position of the entity, and more of a lie reflecting the desires of management. Magrath and Weld (2002:52-53) maintain that many accountants, analysts and investors believe that some creative accounting practices are not fraudulent. They believe that good business practice requires managers to manage earnings and that the process of the smoothing of earnings is rewarded in the share market. Unpredictable earnings streams on the other hand are penalised with lower market valuations. The problem with creative accounting practices may be that once started, entities are likely to continue with these practices in order to meet ever-increasing analysts' expectations. This may mean that entities starting out using perceived harmless creative accounting practices could end up practising more blatant fraudulent activities and become caught up in a downward spiral from which they cannot escape.

The question therefore remains, could creative accounting at some stage become financial fraud? Comparing the definitions and motivations of creative accounting with that of fraud could answer this question. In the following paragraph these definitions are analysed.

3.8.1 Creative accounting and fraud – comparing definitions

The differences, if any, between creative accounting and fraud could become clear by comparing their definitions. A number of definitions for creative accounting are discussed in paragraph 3.2 above and a summary of these definitions can be found in Table 10. According to Dechow and Skinner (2000:238) financial fraud is more clearly defined than creative accounting and a number of definitions is discussed below.

- International Standards on Auditing (ISA) 240R *The Auditor's responsibilities relating to fraud in an audit of financial statements* defines the term "fraud" as an "intentional act by one or more individuals among management, those charged with governance, employees, or third parties, involving the use of deception to obtain an unjust or illegal advantage" (AASB/SAICA 2006 – IAS 240R: par. 11).
- The National Association of Certified Fraud Examiners (as quoted by Dechow and Skinner 2000:238) defines financial fraud as the intentional deliberate, misstatement or omission of material facts, or accounting data, which is misleading and, when considered with all the information made available, would cause the reader to change or alter his or her judgement or decision.
- Bossard and Blum (2004:27) agree with the above and define fraud as a deliberate misrepresentation with the intent to deceive.

From the above definitions it is first of all clear that in the case of all three definitions the intention of the perpetrator is referred to and the intention is immoral and unethical. Secondly, the purpose of fraudulent actions is to obtain an unjust or illegal advantage, to deliberately deceive or to deliberately misstate material facts. Thirdly, it may be derived from the definitions that employees, management and even third parties could be involved in fraud. Comparing these definitions with those

of creative accounting (refer to paragraph 3.2) it may be concluded that both creative accounting and financial fraud hinge on management intent. The outcome of creative accounting and financial fraud, being to deceive the users of financial statements, are also comparable. The main difference between creative accounting and financial fraud is that creative accounting includes accounting choices allowed within the IFRSs whereas financial fraud may also include accounting procedures which violate the IFRSs.

There is a clear distinction between fraudulent accounting practices that violate the IFRSs, and accounting practices, for example accounting estimates, that form part of the IFRSs. Inventory could be overstated by recording fictitious inventory and that would clearly comprise fraudulent accounting. Inventory could also be overstated if the estimation of the net realisable value of the inventory, required by the IFRSs to establish a possible write-down from cost, is too high. This estimation of net realisable value may comprise creative accounting depending on management intent. It is, however, very difficult to distinguish creative accounting practices from the legitimate exercise of accounting judgement (compare Dechow and Skinner 2000:239).

In IAS 240R *The Auditor's responsibilities relating to fraud in an audit of financial statements* examples are given of how fraudulent financial reporting may be accomplished. One of the examples could relate to accounting estimates: "Assets, liabilities, revenues, or expenses based on significant estimates that involve subjective judgements or uncertainties that are difficult to corroborate" (AASB/SAICA 2006 – IAS 240R: Appendix 1). This standard acknowledges that fraudulent financial reporting often involves management's overriding of controls. A number of techniques are mentioned amongst which "inappropriately adjusting assumptions and changing judgements used to estimate account balances" and also "concealing, or not disclosing, facts that could affect the amounts recorded in the financial statements" (AASB/SAICA 2006 – IAS 240R: par. A4). Gray and Manson (2005: 622) are of the opinion that managerial fraud is likely to be more important in the context of financial statements, than fraud carried out by employees. Managerial

fraud could also be more difficult to detect. According to the results of the Committee of Sponsoring Organisations' (COSO) report in 1999 (as quoted by Rezaee 2002:46) the Chief Executive Officer (CEO) was involved in 72% and the Chief Financial Officer (CFO) in 63% of the financial statement fraud cases. The study performed by the COSO examined SEC enforcement actions against approximately 200 entities which were reported to have fraudulent financial reporting activities.

From the above paragraph it may be concluded that management, through the use of accounting estimates, can accomplish not only creative accounting, but also fraudulent financial reporting. Owing to the nature of the manager's position, such fraud could be concealed especially if it starts out as a small immaterial adjustment.

It is clear from ISA 240R paragraph A2 that management's efforts to manage earnings may cause fraudulent financial reporting. "Such earnings management may start out with small actions or inappropriate adjustment of assumptions and changes in judgements by management. Pressures and incentives may lead these actions to increase to the extent that they result in fraudulent financial reporting. Such a situation could occur when, due to pressures to meet market expectations or a desire to maximize compensation based on performance, management intentionally takes positions that lead to fraudulent financial reporting by materially misstating the financial statements. In some other entities, management may be motivated to reduce earnings by a material amount to minimize tax or to inflate earnings to secure bank financing (AASB/SAICA 2006 – IAS 240R: par. A2)". The mention of adjustment of assumptions and changes in judgements in the above paragraph closely relate to accounting estimates, which are based on assumptions and judgements.

The above paragraph clearly acknowledges that certain pressures or incentives may lead to creative accounting. It may also be concluded that financial statement fraud could be a consequence of creative accounting. If the misstatement caused by creative accounting is material, financial statement fraud may be implied. In

Chapter 4 the implications of materiality in terms of creative accounting are discussed.

It may be concluded that creative accounting and financial statement fraud are closely related in terms of their definitions. It is important to examine the motivation for financial statement fraud and to compare it to that of creative accounting to be able to understand the possible relationship between creative accounting, making use of accounting estimates, and fraud. In the next paragraph the motivation for fraudulent financial reporting is discussed.

3.8.2 Motivation for fraudulent financial reporting

In paragraph 3.2.2 meeting market expectations, income smoothing and bonus and share options were indicated as the most evident motivations for creative accounting. A question could be asked as to what would motivate managers to get involved in fraudulent financial reporting.

Rezaee (2002:58) is of the opinion that the reasons for fraudulent financial reporting may be grouped into three broad categories: conditions, corporate structure and choice, otherwise known as the "3Cs". According to him this model helps explain the motives, opportunities and rationalisation for the preparation of fraudulent financial statements.

According to IAS 240R *The Auditor's responsibilities relating to fraud in an audit of financial statements* "fraud, whether fraudulent financial reporting or misappropriation of assets, involves incentive or pressure to commit fraud, a perceived opportunity to do so and some rationalisation of the act" (AASB/SAICA 2006 – IAS 240R: par. A1). Note that the "3Cs" are also present. The incentive or pressure could be the condition; the opportunity could exist because of the corporate structure and the rationalisation of the act forms part of the choice.

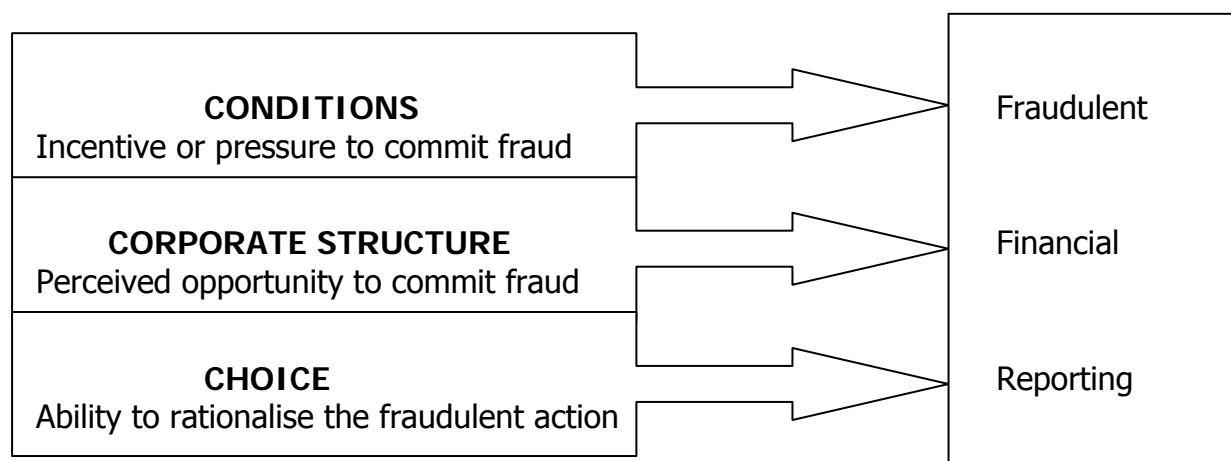
Another study that refers to the "3Cs" is a study performed by Loebbecke, and

quoted by Beasley, Carcello, Hermanson and Lapedes (2000:443). They identify important entity and engagement characteristics that may lead to fraudulent financial statements:

- conditions at the entity that do not prevent fraud;
- motivation for management to commit fraud; and
- the attitude of management and a lack of ethical values.

Figure 1 below is an illustration of the “3Cs” model. Fraudulent financial reporting becomes a possibility if there is an incentive (condition) to commit fraud, if there is a perceived opportunity to do so (corporate structure) and if there is an ability to rationalise the fraudulent action (choice).

Figure 1: The “3Cs” model – Characteristics of fraudulent financial reporting



A better understanding of the “3Cs” model may be helpful in the prediction and uncovering of fraud. Each of the “Cs” namely conditions, corporate structure and choice is discussed separately in the following paragraphs.

3.8.2.1 Conditions

The conditions that could lead to fraudulent financial reporting have to do with the incentives or pressures to commit fraud. Pressures, such as market expectations, are the conditions that set the table for engaging in financial fraud (Rezaee

2002:58). According to IAS 240R "fraudulent financial reporting may exist when management is under pressure, from sources outside or inside the entity, to achieve an expected (and perhaps unrealistic) earnings target or financial outcome – particularly since the consequences to management for failing to meet financial goals can be significant" (AASB/SAICA 2006 – IAS 240R: par. A1).

Paragraph 3.2.2 concluded that market expectations, based on smoothed earnings that have the incentive of maintained share prices could motivate the practice of creative accounting. It may therefore be deduced that the same pressures or conditions that motivate creative accounting, namely market expectations, is a motivator for financial fraud.

3.8.2.2 Corporate structure

The corporate structure may either prevent financial statement fraud or a lack of structure could possibly supply an opportunity for financial statement fraud. According to Rezaee (2002:58) an entity's corporate structure creates an environment that either increases or decreases the likelihood that fraudulent financial reporting will occur. Attributes of the corporate governance structure, internal audit functions and internal control structure all play a role. "A perceived opportunity to commit fraud may exist when an individual believes internal control can be overridden, for example, because the individual is in a position of trust or has knowledge of specific weaknesses in internal control" (AASB/SAICA 2006 – IAS 240R: par. A1).

Aspects that have to do with the corporate structure and possible financial statement fraud have been identified in two separate studies:

- in a study performed by Beasley *et al.* (2000:452) they found that fraudulent companies:
 - have fewer audit committees;
 - have audit committees that are less independent;
 - have fewer audit committee meetings;

- have fewer independent boards compared with non-fraudulent companies; and
- are less likely than non-fraudulent companies to have an internal audit function.
- Geriessh (2003:29) finds that firms that issue fraudulent financial statements are more likely to engage in:
 - related-party transactions;
 - have founders who still have a major influence over the company;
 - employ fewer Chartered Accountants (CA); and
 - exhibit a history of illegal violations.

From the above it seems that corporate structure plays an important role in the prevention of financial statement fraud. In Chapter 4 the prevention and detection of creative accounting or financial fraud is analysed in detail.

3.8.2.3 Choice

Both management and individuals in an entity have a choice for or against fraudulent financial reporting. Management must choose between ethical business strategies and illegitimate creative accounting schemes. Management may choose to engage in financial statement fraud when (Rezaee 2002:58):

- management's personal wealth is associated with an entity's performance;
- management is willing to take personal risk;
- opportunities for the commission of financial statement fraud are present;
- there is substantial pressure to maximise shareholder value; and
- the probability of the fraud being detected is perceived to be low.

"Individuals may be able to rationalise committing a fraudulent act. Some individuals possess an attitude, character or set of ethical values that allow them knowingly and intentionally to commit a dishonest act. However, even otherwise honest individuals can commit fraud in an environment that imposes sufficient pressure on them" (AASB/SAICA 2006 – IAS 240R: par. A1). As with Adam and Eve

it seems that the privilege of choice bestowed on humans, can lead to tragedy. Whether this path of wrong choices is less travelled, remains an interesting question.

According to Rezaee (2002:70) the "3Cs" model may be used to predict and discover potential financial statement fraud. The presence of a single factor may already signal possible fraud but the combination of two or three factors increases the likelihood that fraud may have occurred.

From the above it can be deduced that the "3Cs" model is consistent with guidelines in existing auditing standards (IAS 240R *The Auditor's responsibilities relating to fraud in an audit of financial statements*). In terms of creative accounting it may be important to take note of the "3Cs" model since it has indicated that creative accounting practices, applied too aggressively, can result in financial statement fraud.

3.9 CONCLUSION

The objective of this chapter was to review the literature on the nature of creative accounting and to explore the possibility of whether accounting estimates could lead to earnings management and creative accounting. From the literature study it is clear that creative accounting is a concern for accounting standard setters. To prove the use of accounting estimates as a tool in creative accounting is, however, not an easy task, mainly because the intention of management plays an important role. The difference between fair presentation and creative accounting seems to be the intention of management, which is difficult to assess.

As part of the objective of the study the correlation between creative accounting and financial statement fraud is examined. From the study above it may be concluded that there is not a definite difference between creative accounting and financial fraud. Creative accounting practices may be used to prepare fraudulent financial statements. In some cases the only difference seems to be the materiality of the

amounts involved.

In this study, the use of accounting estimates, as a means for the practice of creative accounting, is important. The "3Cs" being conditions, corporate structure and choice indicate the motives, opportunities and rationalisation for fraudulent financial reporting. It may be concluded that there is a possibility that if management has the intention to deceive, they could make use of allowed accounting estimates and hide behind professional judgement. The reliability of accounting estimates within financial statements can be affected by the use of creative accounting.

In the following chapter (Chapter 4) the measures taken to prevent and detect creative accounting are examined. In the light of the financial disasters mentioned above, some changes in the corporate reporting supply chain have the purpose of limiting creative accounting and financial fraud. The focus will be on the situation in South Africa with reference to accounting estimates.

CHAPTER 4

PREVENTION AND DETECTION OF CREATIVE ACCOUNTING

4.1 INTRODUCTION

Because creative accounting and financial statement fraud seem to hinge on human nature, it is important to establish if there are any checks and balances in place that could prevent and detect creative accounting and financial statement fraud. The third objective of this study, as listed in paragraph 1.3, is to determine what is required of the “corporate reporting supply chain” to prevent and detect earnings management and creative accounting, with special reference to the use of accounting estimates.

In Chapter 2 and 3 it is clear that if management has the intention of deceiving the users of financial statements they could make use of a vast number of accounting estimates allowed in the IFRSs. The information contained in the financial statements storybook could be changed from non-fiction to fiction. In the light of financial disasters and the discovery that financial statements are not always a fair presentation, public trust is shaken.

Firstly, in this chapter public trust or the lack thereof, in the financial reporting process is discussed. Secondly, the different role players, also known as the “corporate reporting supply chain” who have an influence on the financial reporting process will be analysed.

4.2 PUBLIC TRUST

The public and other users of financial statements rely on financial statements to present fairly the financial position and performance of a company. They need to trust the financial reporting process to feel safe and confident in making valid

financial decisions. Unfortunately, in the light of a number of financial scandals, which involved creative accounting and financial statement fraud, the trust and confidence of the public and other users of financial statements in the financial reporting process, has been shaken.

The case of Enron impacted negatively on the trust of the public. DiPiazza Jr. and Eccles (2002:1) are of the opinion that the watershed case of Enron captured the attention of the public. Jobs were lost, retirement for some was in danger and many lawsuits were filed against executives and auditors. Billions of dollars in value were lost and questions were asked about how much of the company's value was real in the first place.

Public trust is not necessarily shaken by business failure but perhaps more because of *unexpected* failure. It is important to note that business failure will always be a part of free capital markets and the best financial information will not be able to change this fact. Improved and reliable financial reporting can however soften the consequences and warn the users of financial statements timeously. Reliable financial information and reporting should enable management, the board of directors and the market to take the right decisions at the right time (DiPiazza Jr. & Eccles 2002:3).

The intention of the perpetrators and the nature of the crime may however impact negatively on the reliability of financial information. According to Levitt and Dubner (2005:69) all of the corporate scandals of the early 2000s were information crimes. They contend that most of these scandals involved an expert in either hiding or encouraging the presentation of false information. "One of the characteristics of information crime is that few of them are detected. Unlike street crime they do not leave behind a corpse or a broken window". In Chapter 3 it was concluded that accounting estimates could be an ideal tool to be used in this so-called "information crime".

If the users of financial statements can no longer trust the information presented in

those financial statements, then financial markets are in grave danger. For this reason Arthur Levitt, former Chairman of the SEC in a 1998 speech, proposed an action plan to ensure credibility and transparency of USA financial statements. He mentioned the following that need to be changed or improved (Levitt 1998:18-19):

- improving the accounting framework – for example, well-detailed disclosures about the changes in accounting estimates should be required;
- improved outside auditing in the financial reporting process – well-trained and well-supervised auditors are required;
- strengthening the audit committee process – audit committees need to be empowered so that they can function as guardians for investors' interest; and
- a need for a cultural change – those relying on deceptions rather than openness and transparency, should be punished.

These changes with the purpose of addressing the “numbers game” were proposed before the well-known financial disasters of Enron and WorldCom that eroded public trust. Since then, the USA has introduced Sarbanes-Oxley (SOX) that has the purpose of reducing the likelihood of fraud. The SOX is, however, not applicable to financial statements prepared in South Africa. For the purpose of this study it is important to identify the role players and their responsibilities in the prevention and detection of creative accounting practices and financial statement fraud in South Africa.

The challenge is to regain the trust of the public, and strengthen the foundation for necessary reforms in corporate reporting (DiPiazza Jr & Eccles 2002:2). It is therefore important to examine all measures taken within the financial reporting process to prevent and detect creative accounting and financial statement fraud. These measures should form the layers that protect public trust. They may be compared with layers of measures taken to safeguard valuable assets. A vicious dog is perhaps not enough! Electric fencing, burglar bars and an alarm system all add to feeling safe and protected.

In the following paragraphs all the role players who have an influence on the

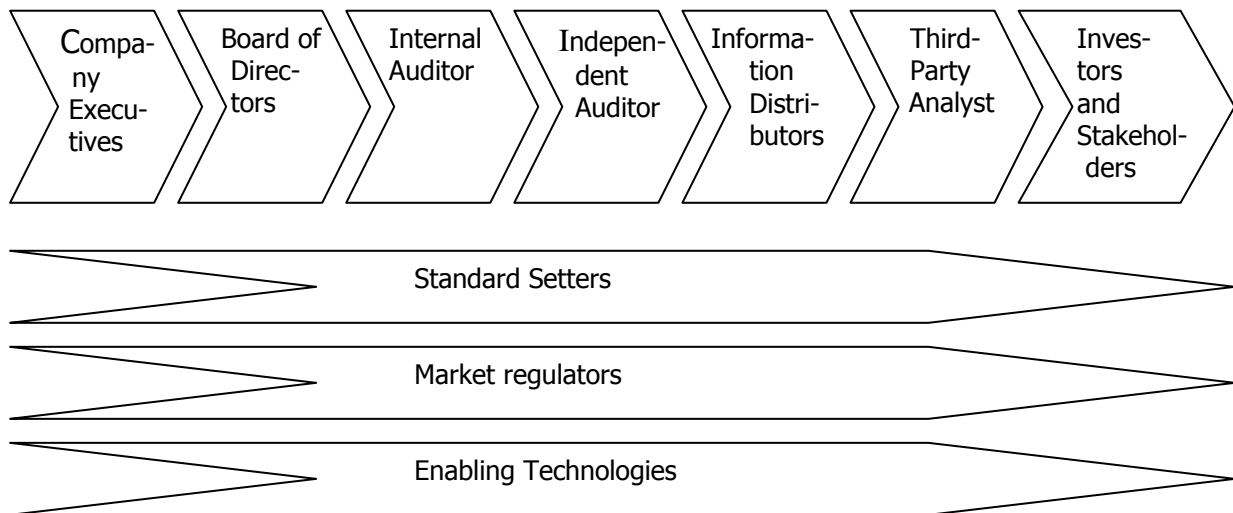
financial reporting process and who have a responsibility in terms of the protection of public trust, will be analysed. Checks and balances that are in place to prevent and detect creative accounting and financial statement fraud in a South African context are specifically observed.

4.3 CORPORATE REPORTING SUPPLY CHAIN

A number of groups are involved in the financial reporting process. Ideally, the financial reporting process should, as an end result, deliver reliable financial statements which are free of material misstatement caused by errors and fraud. According to Rezaee (2002:26) the financial reporting process is influenced by six groups namely: the board of directors, the audit committee, the top management team, internal and external auditors and governing bodies. He is also of the opinion that a definite supportive working relationship among these groups should decrease the probability of creative accounting that may possibly end in fraud.

A comparison may be made to DiPiazza Jr. and Eccles (2002:11) who acknowledge that the preparation and use of financial statements rely on a number of role players involved in the assembly, preparation and communication of financial information. They describe these role players as the "Corporate Reporting Supply Chain" and this "chain" consists of all the above-mentioned role players. Figure 2 below schematically identifies these different role players.

Figure 2: – The Corporate Reporting Supply Chain



(Compare DiPiazza Jr. and Eccles 2002:11)

To understand the complete picture of all the role players concerned with financial reporting, the above-mentioned groups identified by Razaee and DiPiazza Jr. and Eccles should be combined. The “corporate reporting supply chain” may therefore be extended with the audit committee, being an extension of the board of directors, and internal auditors who are responsible for the evaluating and monitoring of the internal control system.

The terms used in Figure 2 as explained by DiPiazza Jr. & Eccles (2002:11-12) are briefly discussed below:

- company executives and board of directors – they prepare and approve financial statements;
- independent auditors – refers to firms (external auditors) who are responsible for providing independent assurance on the reliability of financial statements;
- information distributors – they provide commentary on, or pass along financial information, which could include news media and web sites;
- third-party analysts – they use reported financial information in combination with other information to evaluate an entity’s performance and prospects;
- investors and other stakeholders – they are the ultimate users of financial information and may include shareholders and all other users of financial

statements;

- standard setters – refers to the organisations that set accounting and auditing standards;
- market regulators – includes for example, legislative bodies and stock exchanges that set and enforce rules relating to corporate reporting; and
- enabling technologies – refers to technologies that enable the distribution of financial information inside and outside of an entity.

All of the above “links” have some responsibility either in the supply or use of reliable information. In terms of reliability, transparency has become a key factor in the supply of financial information. The duties of each of the role players who will ensure transparent and reliable financial information will now be analysed. The duties in respect of the objective of the study, accounting estimates, are specifically addressed.

In the following paragraphs the first two “chains” that form part of the “corporate reporting supply chain”, namely company executives and board of directors are discussed together, because their duties and responsibilities in terms of the supply of reliable information are closely connected. Issues that are addressed, under this heading, and that could have an influence on the reliability of financial information, are the following:

- system of internal controls;
- corporate governance;
- board composition;
- remuneration;
- audit committee; and
- code of ethics.

4.4 COMPANY EXECUTIVES AND BOARD OF DIRECTORS

As part of the “corporate reporting supply chain” both company executives and boards of directors have very important roles to play in the preparation of financial statements that are free from creative accounting and financial fraud. Company executives and top management, through the delegated authority from the board of directors, are responsible for the day-to-day activities of the entity. They are also primarily responsible for the preparation of financial statements in accordance with IFRSs (in South Africa). The board of directors is ultimately accountable and responsible for the performance and affairs of the entity and for the appointment of the chief executive officer. The board must retain full control over the entity and identify key risk areas and key performance indicators of the entity (RSA King Report 2002:22 - 23).

The board of directors is elected by the shareholders and typically consists of inside or executive directors (e.g. top managers) and outside or non-executive directors (e.g. non-employees). The shareholders delegate their authority and decision control to the board of directors. The role of the board is to monitor management plans and actions and their primary responsibility is to maximise shareholder value. In overseeing the financial reporting process, the board of directors is in an ideal position to prevent and detect creative accounting (Rezaee 2002:141-142). The board of directors sets the entity’s culture and influences how employees will conduct themselves. Nowhere in an entity are ethical values and integrity more important than in the board of directors (De la Rosa 2006:17-21).

According to Rezaee (2002:181, 183) managers may be motivated to participate in creative accounting practices. This may happen if managers’ financial well-being is closely associated with the well-being of the entity. Madison (as quoted by Elias 2004:87) is of the opinion that managers are willing to “cook the books” no matter what the cost, as long as their companies match or exceed earnings expectations. He maintains that this could be because of a failure to teach business ethics at educational institutions. A notion that corporate culture and corporate ethical values

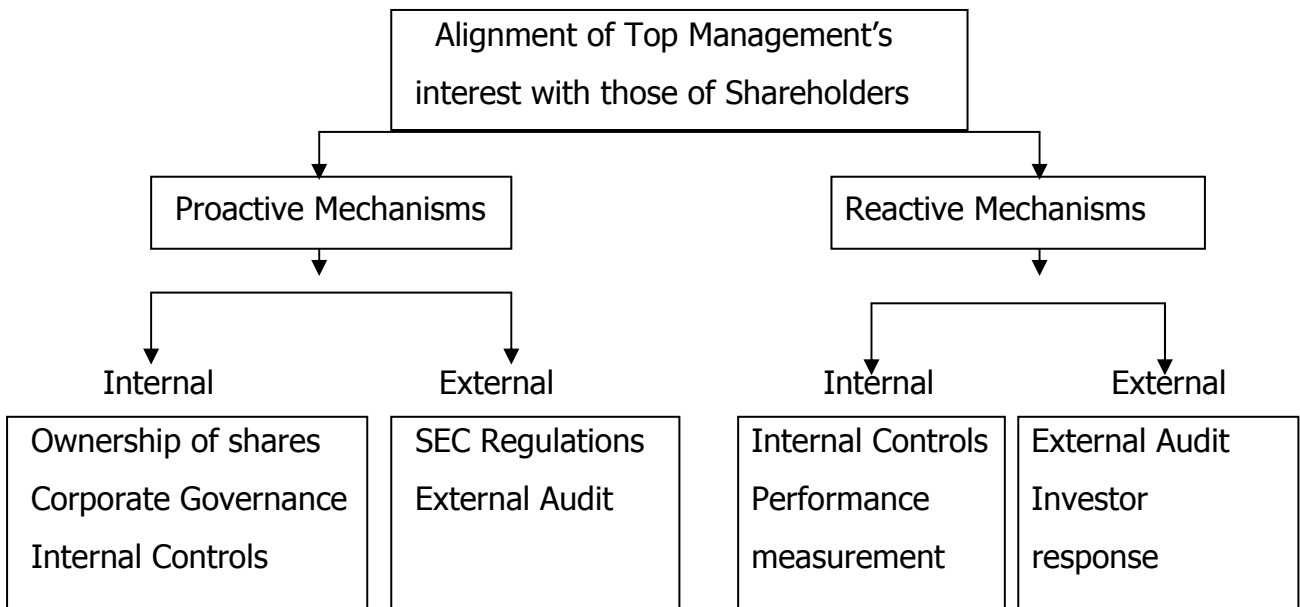
play an important role in creative accounting practices, is gaining increasing acceptance. The "tone at the top" is essential in forming an entity's ethical values. In a study performed by Elias, he found that "corporate ethical values were important determinants of earnings management perception" (Elias 2004:87, 95).

Dunn (2004:397) is of the opinion that managers, through their decisions, are responsible for creative accounting or fraud. According to him a concentration of power in the hands of insiders may contribute to creative accounting or fraud. Members of top management who are also directors may combine their powers by controlling both the top management team and the board of directors. By keeping the key managerial positions to themselves they can control the flow of information needed to make decisions. This could lead to the deliberate release of false financial information (Dunn 2004:408).

There seems to be a correlation between the "3Cs" model that was discussed in depth in Chapter 3 and the remarks of the above authors. The company executives and board of directors are mainly responsible for and in control of the corporate structure. If the conditions exist, which most of the time they do because of the very competitive nature of capital markets, it is only by choice that company executives and board of directors will refrain from becoming part of creative accounting and possibly fraudulent financial reporting. Certain mechanisms should be put in place to either guide or monitor the choices that company executives and boards of directors make.

Both the shareholders of an entity and the management of the entity, who are employed by the shareholders to manage on their behalf, are trying to maximise their own wealth. This is the so-called 'agency theory' (Gray and Manson 2005:11). According to the agency theory, the top management team manipulates financial statements to their advantage. Therefore, the top management team should be monitored or an appropriate incentive structure should be in place to align the interest of management with that of the shareholders. Figure 3 below presents proactive and reactive monitoring mechanisms.

Figure 3: Monitoring Mechanisms



(Rezaee 2002:129)

In the South African context the above monitoring mechanisms may be adapted by replacing the SEC regulations (an external proactive mechanism) with the GAAP Monitoring Panel. The GAAP Monitoring Panel is an interim monitoring function that will be replaced by the Financial Reporting Investigations Panel (FRIP). According to the Companies Act section 440W, the Panel will investigate all alleged failure to comply with financial reporting standards and make recommendations in terms of rectification (SAICA Legislation Handbook 2007/2008:105).

Following classic criminology, a fraudster will not be as willing to commit fraud if there is a perceived risk of being discovered. To prevent financial fraud the root cause, that is more often than not, the financial pressure that motivates a person to commit fraud, should be removed. The prevention of fraud takes place if a person's behaviour is modified through the threat of sanctions. Punishing fraudsters once they have acted is a reactive deterrent and is not very effective. A proactive deterrent is the most effective way to discourage offenders. Increasing the perception of detection could be the best deterrent (Wells 2002:107). Effective internal controls and the internal and external auditors have important roles to play in proactive deterrence.

The installation of alarm systems and burglar bars are proactive measures to keep valuable assets safe. The use of a system of internal control and good corporate governance could also be put in place as proactive measures, as a means with the same objective. In the next paragraph the system of internal control is discussed.

4.4.1. System of Internal controls

The system of internal control should be designed in such a way that irregularities are prevented and should ensure early detection thereof. By doing just that, the system of internal control acts as a protective system against fraud (Silverstone & Sheetz 2007:68). Wells (2002:107) is also of the opinion that a system of internal control is the main defence against creative accounting and fraud. According to him the internal control system provides only reasonable assurance against creative accounting and fraud. Company insiders, who might attempt to commit financial statement fraud, are covering their tracks and they are adept at it.

Internal control is defined in the Glossary of Terms issued in October 2004 as: "The process designed and affected by those charged with governance, management and other personnel to provide reasonable assurance about the achievement of the entity's objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations. Internal control consists of the following components (AASB/SAICA 2004 – Glossary of Terms):

- the control environment;
- the entity's risk assessment process;
- the information system, including the related business processes, relevant to financial reporting, and communication;
- control activities; and
- monitoring of controls."

Each of the above-mentioned components of the internal control process may be

explained as follows (Rezaee 2002:195-196):

- control environment – managements set the tone at the top through their ethical values and example;
- risk assessment – involves the identification and analysis of all relative risks, to reduce their effects on operations and the financial reporting process;
- information and communication – communication of management objectives and goals to employees in the entity and the receiving of feedback;
- control activities – policies and procedures designed to achieve the control objectives; and
- monitoring – the assessment of the internal control structure.

Although a system of internal controls is well defined, the usefulness thereof as a proactive monitoring system will lie with everyone who is responsible for the implementation and upkeep of a system of internal controls. According to Walton and Aerts (2006:428), internal control related roles and responsibilities are not well defined. Risk assessment, which is an important component of a system of internal control, is generally underdeveloped. Without proper risk assessment, internal control goals remain unclear.

In the USA the SOX made executive management responsible for internal controls. They have a responsibility to establish, evaluate and assess the effectiveness of internal control over financial reporting and disclosure. With each annual report filed with the SEC an internal control report has also to be filed. In this report management should state its responsibility and assesses the effectiveness of the internal control structure and the independent auditors should attest to and report on the assessment made by management (Walton & Aerts 2006:426). According to Silverstone and Davia (2005:23) the objective of SOX, in terms of internal controls, is to make them so effective that fraud will be nearly impossible. It is now the responsibility of management to establish the most effective internal control system.

Since SOX is not applicable on entities in South Africa, the *King Report on Corporate Governance for South Africa* (2002:30) is the only document in South Africa that

deals with corporate governance and that gives guidance on the responsibility for internal controls. According to this Report the board of directors is responsible for the total process of risk management. Risk management includes making use of recognised risk management and internal control models to provide reasonable assurance amongst others, of the reliability of reporting. "The control environment should also set the tone of the company and cover ethical values, management's philosophy and the competence of employees" (RSA King Report 2002:31 - 32).

To decrease the risk of company executives and other employees practising creative accounting, a system of internal control, for which the board of directors is responsible, should be in place. Company executives are in the ideal position to practise creative accounting if they have the intention to do so. The "tone at the top" and the system of internal control should keep them from doing so. As noted in Figure 3 above, it is not only a system of internal control that acts as an internal proactive measurement to align the interest of management with that of the shareholders, but also of corporate governance. The system of internal control should prevent and detect irregularities and corporate governance should help to achieve shareholder value. In the next paragraph corporate governance is discussed.

4.4.2. Corporate governance

Corporate governance has been identified, together with a system of internal controls that has been discussed in the above paragraph, as a proactive monitoring mechanism (refer to Figure 3 above). According to Walton and Aerts (2006:49) corporate governance issues arise whenever the ownership of an entity is separated from its management. Rossouw, Prozesky, Van Heerden and Van Zyl (2006:116) contend that corporate governance stems from the agency theory where the manager (director) acts on behalf of the shareholder. Corporate governance comprises the systems and processes that are put into place to achieve sustainable shareholder value (Fahy, Roche & Weiner 2005:163). The directors have a responsibility towards the shareholders and they have to ensure that the

shareholders receive fitting rewards for their investments (Rossouw *et al.* 2006:116).

Corporate governance tends to differ from one country to another for different reasons; for example, economic and cultural. Corporate governance in South Africa was institutionalised by the publication of the first *King Report on Corporate Governance* in 1994. Owing to a number of changes in the international environment such as legislative developments, and the emergence of information technology, it was considered appropriate to review corporate governance standards and therefore the *King Report on Corporate Governance for South Africa 2002* (RSA King Report 2002) was issued.

Mervyn King (2003:8) chairman of the King Committee on Corporate Governance is of the opinion that the age of corporate governance has arrived. The need for good corporate governance has been emphasised by a number of corporate scandals. According to him there is no shame in business failure unless it is through dishonesty and a lack of care. Good corporate governance therefore, provides some guarantee of sustainable business success.

The Organisation for Economic Cooperation and Development (OECD) (as quoted by Rezaee 2002:118) defines corporate governance as: "The system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as the board of directors, managers, shareholders, and other stakeholders and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives are set and the means of attaining those objectives and monitoring performance". According to Rezaee (2002:118) "corporate governance is a mechanism of monitoring the actions, policies, and decisions of corporations in increasing shareholder value".

Corporate governance is based on an underlying concept of accountability and responsibility (Rezaee 2002:118). According to Armstrong (2003:10), principle

convenor of the King 2 report committee, the board of directors is the focal point of corporate governance. It is required from the board to act with integrity and exercise professional judgement. "Governance in any context reflects the value system of the society in which it operates" (RSA King Report 2002:18).

The RSA King Report (2002:40) requires the directors of entities to report on the following matters in their annual report:

- that it is their responsibility to prepare the financial statements and that they fairly present the state of affairs of the entity;
- that the independent auditor is responsible for reporting on whether the financial statements are fairly presented;
- that they maintain adequate accounting records and an effective system of internal controls and risk management;
- that they consistently use appropriate accounting policies that are supported by reasonable and prudent judgements and estimates;
- that applicable accounting standards are used;
- that the business will be a going concern in the year ahead or an explanation of any reasons otherwise; and
- that the Code of Corporate Practices and Conduct is adhered to.

It should be noted that one of the above matters that needs to be reported on deals with the reasonableness of estimates. This is an indication that the board of directors is ultimately held responsible for accounting estimates. The users of financial statements demand greater transparency and accountability from entities with regard to their non-financial matters. "Committing to transparency requires believing that its benefits will outweigh its risks and costs" (DiPiazza Jr. & Eccles 2002:105). A study performed by McKinsey & Co. (quoted by RSA King Report 2002:13) during 2000 indicates that more than 84% of 200 global institutional investors are willing to pay a premium for the shares of a well-governed company.

Managers and directors can potentially add shareholder value with good governance practices. Good governance practices can be a magnet for global capital. This is

especially so in the case of emerging markets. It is important to note that entities not only need to be well-governed but that the market should also perceive them to be well governed (RSA King Report 2002:13).

From the above it should be clear that in terms of corporate governance, the buck stops with the board of directors who are responsible for the performance of the company. Important topics that form part of the King report and may act as detecting or preventing measures for creative accounting and financial fraud are:

- the composition of the board;
- remuneration of management and board members;
- audit committee; and
- code of ethics.

In the following paragraphs these above-mentioned governance topics are discussed in more detail.

4.4.2.1 Board composition

Taking into account the important responsibilities of the board of directors in terms of financial statements, the composition of the board is important. "The board should comprise a balance of executive and non-executive directors, preferably with a majority of non-executive directors, of whom sufficient should be independent of management so that shareowner interests can be protected" (RSA King Report 2002:23).

The composition of the board, in other words, the number of executive and non-executive directors may have an influence on, if creative accounting is practised or not. In a study performed by Xie, Davidson and Dalt it was indicated that CEO duality is unrelated to creative accounting practices. What Xie *et al.* did find is that the background of the non-executive directors plays a role. A director with a financial background is more familiar with possible creative accounting practices and the implications thereof. Their presence is associated with a reduced level of

creative accounting (Xie, Davidson & DaDalt 2003:298 and 305).

The study performed by Xie *et al.* also finds that an active board, in other words, a board that meets more often, is a better monitor of creative accounting (Xie, Davidson & DaDalt 2003:298 and 305). The number of board and committee meetings held in a year, as well as the details of attendance, should be disclosed in the annual report (RSA King Report 2002:28).

The users of financial statements should be aware of the composition of the board, their level of financial skills and the number of meetings held and attended. All of this information should be available in the annual report and could be of some help in making economic decisions.

4.4.2.2 Remuneration

The remuneration of directors may act as a preventative measure to creative accounting and financial fraud. One of the internal proactive mechanisms noted in Figure 3 above is the ownership of shares. According to RSA King Report (2002:27) the total remuneration package of executives should be structured in such a way so that their interest is in line with that of the shareholders. The rise in the share price could therefore be to the advantage of not only the shareholders, but also the directors and top managers through their ownership of share options.

In a speech delivered during 2005 by Charlie McGreevy, the European Commissioner for Internal Market and Services, concern was expressed about the incentive-based remuneration structures used by companies. According to him these structures provide an incentive to management to increase shareholder value, but in some instances lead to temptation and ultimately account manipulation and corporate scandals. Recent developments in accounting standards may make the use of creative accounting more challenging (Mc Creevy 2005:20-21).

Entities should provide full disclosure of director remuneration and of all share

schemes. This should be done on an individual basis, giving details of earnings and all other benefits (RSA King Report 2002:27). This could be valuable information to the users of financial statements and should not be ignored.

4.4.2.3 Audit committee

The “corporate reporting supply chain”, as described by DiPiazza Jr. and Eccles (refer to Figure 2), does not identify the audit committee as a separate link of this chain. However, the audit committee, being an extension of the board of directors, has an important role to play in the supply of reliable financial information.

The RSA King Report (2002:39) stipulates that the board of an entity should appoint an audit committee. It is recommended that the majority of the members on the audit committee should be independent and non-executive. Because of the nature of the work to be done by the audit committee, it is also preferable that the majority of the members should be financially literate. According to the Companies Act section 269A (3), the audit committee should at least have two members acting independently and who are also non-executive directors (SAICA Legislation Handbook 2007/2008:65).

The function of the audit committee is to be a watchdog of an entity’s financial performance and financial reporting (Xie *et al.* 2003:299). The audit committee is also responsible for monitoring the effectiveness of the internal control system, the internal audit and risk management systems (Walton & Aerts 2006: 439). It should be noted that although the audit committee is an extension of the board of directors, the board remains responsible for all the above matters that are delegated to the audit committee.

In a study performed by Abbot (as quoted by Spathis 2002:183) he finds that entities with audit committees that consist of independent directors and which meet at least twice a year are less likely to participate in creative accounting or financial statement fraud. Xie *et al.* (2003:299) conclude with a study they performed that

there is an association between creative accounting and the frequency of audit committee meetings. Creative accounting practices are therefore lower with more frequent audit committee meetings.

The audit committee should have written terms of reference that deal with its membership, authority and duties. In their annual report, entities should disclose whether the audit committee has satisfied its responsibilities for the year. The membership of the audit committee should also be disclosed in the annual report (RSA King Report 2002:39).

As noted above, the audit committee may be an excellent watchdog in the prevention or detection of creative accounting and financial fraud. The users of the financial statements should form an opinion on the value added by the audit committee, because as with dogs, not all watchdogs are created even. Some are lazy and ignorant, whereas others are vigilant and eager to protect.

4.4.2.4 Code of ethics

According to the RSA King Report every company should codify its standards of ethical behaviour in a code of ethics. The role of the code of ethics is to set the right "tone at the top" and by doing so, guide people to make the right choice in a possible moment of weakness (Silverstone & Davia 2005:26). "Providing, monitoring and auditing safe systems for reporting of unethical or risky behaviour" should be part of a company's commitment to its code of ethics (RSA King Report 2002:37).

The board should consider the need for a confidential reporting process ("whistleblowing") covering fraud and other risks. Near and Miceli (as quoted by Rezaee 2002:104) defined whistleblowing as the "disclosure by organisation members (former and current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organisations that may be able to affect action". It basically occurs when an individual with knowledge of misconduct, including financial fraud, informs those with authority to correct the situation

(Rezaee 2002:104).

Although a whistleblowing process might be in place, to actually blow the whistle, remains a complex moral decision. According to Rest (quoted in Rezaee 2002:109) the following four-component prerequisites explain the complexity of this moral decision to blow the whistle:

- recognising the moral issue – the witness to the misconduct should assess possible actions, their outcomes and their impact on others;
- making a moral judgement – the witness should be able to make moral judgements, without taking into account the potential effects on others;
- establishing moral intent – the witness should have a desire to do what is right; and
- engaging in moral behaviour – the witness should be willing and able to report the misconduct, such as financial statement fraud.

A low rate of whistleblowing may indicate the following:

- effective internal controls which detect creative accounting or fraudulent activities;
- fear of the consequences of whistleblowing; and
- employees' trust of the internal controls to prevent and detect fraud (Rezaee 2002:110).

In the above paragraphs the responsibilities of the company executives and the board of directors in terms of the prevention and detection of creative accounting have been discussed. A system of internal control and corporate governance factors such as the composition of the board, remuneration, the existence of independent audit committees and a code of ethics may also have an important restraining influence on creative accounting practices. The following paragraph examines the checks and balances that an internal audit function, as part of the corporate reporting supply chain, puts in place to detect and prevent creative accounting.

4.5 INTERNAL AUDIT FUNCTION

The internal audit function may play an important role in the supply of reliable financial information. It should be noted that the internal audit function does not form part of original "corporate reporting supply chain" identified by DiPiazza Jr. and Eccles. In a South African context the internal audit function is an important link in the "corporate reporting supply chain" and has been added to the "corporate reporting supply chain" (refer to Figure 2 above).

In terms of the RSA King Report (2002:34), entities should have an effective internal audit function. The internal audit function should have the respect and co-operation of both the board of directors and management. The internal audit department should report at all audit committee meetings, as well as report at an appropriate level within the entity.

According to the International Standard on Auditing's Glossary of Terms, the internal audit function is established within an entity as a service to the entity. Its functions include, amongst others, examining, evaluating and monitoring the adequacy and effectiveness of internal control (AASB/SAICA 2004 – Glossary of Terms).

An effective internal audit function should provide (RSA King Report 2002:35):

- "assurance that the management processes are adequate to identify and monitor significant risks;
- confirmation of the effective operation of the established internal control system;
- credible processes for feedback on risk management and assurance; and
- objective confirmation that the board receives the right quality of assurance and information from management and that this information is reliable".

From the above paragraph it should be clear that the internal audit function strengthens the system of internal control. The internal auditor should be independent from top management and should oversee the proper functioning of

the system of internal controls and report its findings to the board of directors via the audit committee.

The internal auditors are well positioned to detect creative accounting practices and fraud. Unlike independent auditors they are not limited by time constraints and high costs. They should continuously identify and investigate weaknesses within the internal control structure (Rezaee 2002:204). Church, McMillan and Schneider (2001:99) are also of the opinion that internal auditors play an important role in detecting creative accounting and fraud. The work done by internal auditors could be to the advantage of those who may need to evaluate the risk of financial statement manipulation. If internal auditors are aware of the warning signs of creative accounting and fraud, their risk of not detecting fraud would decrease.

Rezaee (2002:59 and 60) contends that because financial statement fraud is typically perpetrated at least with the knowledge of top executives, internal auditors should identify "business red flags" or early warning signs. The red flags identified by him are the following:

- inability to meet analysts' forecasts;
- increased competition; and
- cash-flow shortages.

Elliot and Willingham (as quoted by Rezaee 2002:99) state, "red flags do not indicate the presence of fraud. Red flags are conditions believed to be commonly present in events of fraud and they, therefore, suggest that concern may be warranted".

It is important to note that the role of the internal auditor is not to question the decisions of management, but he/she has to make sure that the right people are aware of those decisions. The internal auditor may in fact save the entity from possible financial disaster, by being alert to the signs and dangers of creative accounting practices (Kokszka 2003:67). Internal auditors may therefore play a vital role in financial reporting and corporate governance. If they actively participate in

corporate governance and accept their important role in combating creative accounting and fraud, they can help restore the public's trust in financial reporting (Rezaee 2002:61).

Internal auditors can therefore take a proactive approach in the fight against creative accounting practices. Preventing creative accounting is always preferable to having to detect it. Employees can be educated so that they are aware of the potential dangers of creative accounting practices. Internal auditors should perform the following procedures to detect creative accounting (Clikeman 2003:77-78):

- analyse trends;
- review significant year-end transactions;
- review significant estimates and assumptions; and
- review restructuring accruals and reversals.

One of the procedures mentioned by Clikeman (2003:78) that is of particular interest to this study is the review of significant estimates and assumptions. According to him, all significant estimates should be reviewed with professional skepticism and the reason for changes in assumptions should be determined and justified by the internal auditor. If this is independently done from top management, the possible risk that accounting estimates are used for creative accounting purposes may be reduced.

The internal audit functions play a very important role in the "corporate reporting supply chain" in terms of decreasing the risk of creative accounting and financial fraud. It could be interesting to investigate how many fraud cases have been discovered by the internal audit function.

In a 2002 report prepared by the Association of Certified Fraud Examiners (ACFEs) (in the USA) internal auditors discovered 18,6% out of a number of 663 fraud cases, whereas tips from employees revealed 26,3%. In a study performed by the ACFEs during 2004, the percentage of fraud discovered by the internal audit function increased to 24% (refer to paragraph 4.6 below). Silverstone & Davia (2005:29)

remark that the internal audit function, although an important part of the system of internal controls, should therefore be seen as only one of the internal antifraud controls.

The reason for the above-mentioned low percentage of fraud discoveries by the internal audit function could possibly be because internal auditors are reluctant to report negative managerial information; for example, financial statement fraud. This could be because of an entity's structure and chain of command. Recent studies revealed the following (Rezaee 2002:208):

- senior management are responsible for hiring and firing the internal auditors without any involvement from the audit committee;
- internal auditors indicated that they will not report incidences of financial statement fraud that involve top management, because the chances are that they will be fired;
- access to the audit committee is restricted; and
- senior management determines the size of the internal audit function, which makes the internal auditor reluctant to report management involvement in fraud to the audit committee.

The board of directors should be aware of the above-mentioned possible restrictions on the internal audit function and the board should ensure that the entity's structure and chain of command allows the internal audit function to operate properly. The audit committee should play a key role in the "independence" of the internal control function.

In the above paragraphs the role of the internal audit function in the prevention and detection of creative accounting and fraud has been discussed. In the wake of a bankrupt Enron and the subsequent downfall of the audit firm Arthur Anderson, the public were asking an all-important question: "Where were the auditors?" In the next paragraph the important role of the independent (external) auditors, as part of the "corporate reporting supply chain", is examined.

4.6 INDEPENDENT AUDITORS (EXTERNAL AUDITORS)

In Chapter 3 creative accounting and fraud were defined. It has been concluded in that accounting estimates could be a handy tool in the hands of management if they have the intention to deceive. The responsibility of the independent auditor to detect creative accounting and fraud, in terms of accounting estimates, is important and is worth exploring.

Audits are required because the information subject to an audit becomes more reliable and therefore more useful (Gray and Manson 2005:11). Independent auditors are responsible for expressing an opinion whether the financial statements are prepared in accordance with IFRSs (AASB/SAICA 2006 – ISA 200: par. 2). Different users of financial statements make important economic decisions by relying on audit opinions. According to Fahy, Roche and Weiner (2005:175) the corporate failure of Enron, with the subsequent collapse of global accounting firm Arthur Anderson, brought the role of the independent auditor under closer scrutiny.

There is a difference in opinion between the users of financial statements and independent auditors about what the level of assurance that the auditor's report should convey (DiPiazza Jr. & Eccles 2002:156). Users could expect that independent auditors should be able to identify creative accounting and under all circumstances discover fraud. A ACFE's 2004 Report to the Nation on Occupational Fraud and Abuse found that 10,9% of instances of fraud were initially discovered by independent auditors and 24 % by the internal auditors (Silverstone & Sheets 2007:62). According to this study a higher number of instances of fraud were discovered by internal auditors than by independent auditors. This could be because internal auditors are not limited by time constraints and are more involved in the internal control system.

Rezaee (2004:134) believes that the so-called "expectation gap" turned into a "trust gap" that resulted from previous financial disasters. To understand this audit

expectation or trust gap and the role that the independent auditor plays as part of the “corporate reporting supply chain”, the users of financial statements need to have some knowledge of what is required from the independent auditor during a financial statement audit. These requirements are discussed below, with specific reference to creative accounting, under the following headings: objective, approach and standards.

4.6.1 Objective

The possible expectation gap can only be bridged if the user of the financial statements clearly understands the objective of an audit. The International Standard on Auditings defines the objective of an audit in the glossary of terms as follows (AASB/SAICA 2004 – Glossary of Terms): “The objective of an audit of financial statements is to enable the auditor to express an opinion whether the financial statements are prepared, in all material respects, in accordance with an applicable financial reporting framework.” For the users of financial statements it is important to understand that the opinion expressed by the independent auditor provides reasonable assurance that the financial statements are free from material misstatement. In terms of paragraph 11 of the International Framework of Assurance Engagements the objective of a reasonable assurance engagement is to reduce the assurance engagement risk to an acceptably low level. “Reasonable assurance is less than absolute assurance. Reducing assurance engagement risk to zero is very rarely attainable or cost beneficial” (AASB/SAICA 2006 – Framework of Assurance Engagements: par. 52).

The scope of a financial statement audit is limited to the assurance given. In terms of this study, the auditor will have to obtain reasonable assurance that all material accounting estimates are reliably calculated in terms of the IFRSs. ISA 240R *The Auditors Responsibilities Relating to Fraud in an Audit of Financial Statements* however, states that (AASB/SAICA 2006 – ISA 240R: par. 5) “owing to the inherent limitations of an audit, there is unavoidable risk that some material misstatement of the financial statements will not be detected, even though the audit is properly

planned and performed in accordance with the ISAs”.

It is clear that because of such a factor as judgement, which is a relevant concept in terms of accounting estimates and also under certain circumstances of fair values, it is not possible for an auditor to obtain absolute assurance that material misstatements in the financial statements will be detected (AASB/SAICA 2006 – ISA 240R: par. A45). Hitzig (2004:33 and 35) is of the opinion that analytical procedures may be the only source of assurance for tests of accounting estimates. He warns that the observation of significant differences may indicate material misstatement but the absence of such differences does not indicate that there is no material misstatement.

The risk that accounting estimates could be used for the purpose of creative accounting could be lowered by the responsibility of the independent auditor to detect any material misstatement, but this is only a reasonable assurance. The meaning of materiality is important to understand the “opinion” expressed by independent auditors in the auditor’s report.

In a 1998 speech by the former SEC Chairman Arthur Levitt, he mentioned materiality as a gimmick that is used by some entities to violate GAAP. According to him the concept of materiality is not to be used as an excuse to hide deliberate misstatements of performance (Levitt 1998:17-18).

Information is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements. Materiality depends on the size of the item or error judged in the particular circumstances of its omission or misstatement. Thus, materiality provides a threshold or cut-off point rather than being a primary qualitative characteristic which information must have if it is to be useful (AASB/SAICA 2004 – Glossary of Terms).

Materiality is defined in IAS 1 as follows (IASB/SAICA 2006 – IAS 1 (AC 101): par. 11): “Material omissions or misstatements of items are material if they could

individually or collectively influence the economic decisions of users taken on the basis of the financial statements. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances. The size or nature of the item, or a combination of both, could be the determining factor”.

The term ‘materiality’ acknowledges that financial statements are not a hundred percent accurate. Auditors are required to attest that financial statements are free from material misstatements. It is however possible that materiality may be abused by auditors (Kokoszka 2003:65). IFRSs allows for some difference between accounting estimates and the reality, as long as the difference is immaterial. It is suspected that some entities introduce errors into their accounting estimates and that auditors ignore them because the errors are not material (Collingwood 2001:74).

A study performed by Nelson, Elliot and Tarpley indicates that auditors are more likely to adjust creative accounting attempts they consider material and attempts made by small clients. This could indicate that auditors are more willing to allow creative accounting practices by their most important clients (Nelson *et al.* 2002:197). They also found that characteristics that discourage auditors from requiring adjustment attempts are transactions that decrease current income (but with a possible future increase of income) and transactions that involved subjective accounting rules and judgements (Nelson *et al.* 2003:22). It may therefore be concluded that creative accounting practices that involve accounting estimates, which are based on professional judgement and that decrease income in larger clients are most likely not to be corrected by auditors. The absence of a clear conceptual framework together with the unwillingness of certain auditors to take a stricter approach on accounting choices is to the advantage of creative accounting practices (Shah 1998:99).

The independent auditor, as part of the corporate reporting supply chain, has an important responsibility in terms of the detection of creative accounting and fraud. The users of financial statements are not guaranteed that the independent auditor

will discover all material misstatements since the objective of an audit is to give *reasonable* assurance that the financial statements are free from material misstatements. Not detecting material misstatements, especially in case of fraud, is possible because of concealment and collusion. In the next paragraph the independent auditor's approach to an audit is discussed.

4.6.2 Approach

The way an audit is approached by the independent auditor may have an influence on the outcome of the audit. The risk that material misstatements are not discovered may be decreased if the independent auditors approach the audit with an attitude of professional skepticism. This attitude implies a questioning mind and a critical assessment of audit evidence (Silverstone & Davia 2005:13).

According to the *International Framework for Assurance Engagements* professional skepticism (AASB/SAICA 2006 – Framework of Assurance Engagements: par40) “means the practitioner makes a critical assessment, with a questioning mind, of the validity of evidence obtained and is alert to evidence that contradicts or brings into question the reliability of documents or representations by the responsible party”. An attitude of professional skepticism should be maintained throughout the audit, notwithstanding the auditor's past experience with the entity (AASB/SAICA 2006 - ISA 240R: par. 8 and 12).

Professional skepticism is especially important in dealing with matters of judgement. The International Standard on Auditing (IAS 315R) *Identifying and assessing the risk of material misstatement through understanding the entity and environment* recognises that significant risk often relates to judgemental matters. “Risks of material misstatements may be greater for significant judgemental matters that require the development of accounting estimates, arising from matters such as the following (AASB/SAICA 2006 – ISA 315R: par. A114):

- accounting principles for accounting estimates or revenue recognition may be subject to differing interpretation; and

- required judgement may be subjective, complex or require assumptions about the effects of future events, for example, judgement about fair value.”

It is therefore acknowledged by the International Standards on Auditing that the use of accounting estimates in financial statements is a potential high risk area in terms of material misstatements.

From the above paragraph it is clear that in order to detect creative accounting and financial fraud the independent auditor should approach the audit with professional skepticism. In the next paragraph the International Standards on Auditing that specifically deals with the audit of accounting estimates are discussed.

4.6.3 Audit Standards

Financial statement audits should be conducted in accordance with International Standards on Auditing. Two International Standards on Auditing, namely ISA 540 *Auditing of Accounting Estimates* and ISA 545 *Auditing Fair Value Measurements and Disclosure* have the purpose of establishing standards and providing guidance on auditing accounting estimates, fair value measurements and disclosures contained in financial statements.

Concerning accounting estimates “the auditor should design and perform further audit procedures to obtain sufficient appropriate audit evidence as to whether the entity’s accounting estimates are reasonable in the circumstances and, when required, is appropriately disclosed” (AASB/SAICA 2006 - ISA 540: par. 8). “The auditor should adopt one or a combination of the following approaches in the audit of an accounting estimate (AASB/SAICA 2006 - ISA 540: par. 10):

- review and test the process used by management to develop the estimate;
- use an independent estimate for comparison with that prepared by management; or
- review of subsequent events which provide audit evidence of the reasonableness or confirm the estimate made”.

The problem with accounting estimates is that they are not exact numbers but based

on uncertainty. Taking this into account, a range of “correct” answers could therefore be calculated. The independent auditor should not be satisfied with a more-or-less correct answer that is based on pure ‘thumb-sucked’ assumptions. Assumptions should be reasonable and based on guidance given in the specific accounting standard.

In respect of fair values that could, under certain circumstances, be based on estimates, the auditor should obtain an understanding of the entity’s process for determining fair value measurements and disclosures. The auditor considers, for example (AASB/SAICA 2006 - ISA 545: par. 12):

- “the relevant control activities procedures over the process used to determine fair value measurements, including, for example, controls over data and the segregation of duties between those committing the entity to the underlying transactions and those responsible for undertaking the valuations;
- the expertise and experience of those persons determining the fair value measurements;
- the role that information technology has in the process;
- the types of accounts or transactions requiring fair value measurements or disclosures (for example, whether the accounts arise from the recording of routine and recurring transactions or whether they arise from non-routine or unusual transactions);
- the extent to which the entity’s process relies on a service organisation to provide fair value measurements or the data that supports the measurement;
- the extent to which the entity uses the work of experts in determining fair value measurements and disclosures;
- the significant management assumptions used in determining fair value;
- the documentation supporting management’s assumptions;
- the methods used to develop and apply management assumptions and to monitor changes in those assumptions;
- the integrity of change controls and security procedures for valuation models and relevant information systems, including approval processes; and
- the controls over the consistency, timeliness and reliability of the data used in

valuation models”.

From the above paragraph, it should be clear that it is no easy task to audit fair values. The different assumptions that may be used can enable management to hide creative accounting or even financial fraud.

Because of the nature of accounting estimates the International Standard on Auditing IAS 240R acknowledges the fact that they may lead to material misstatements in the case of fraud. Guidance is given to the auditor on reviewing accounting estimates for biases that may result in material misstatement due to fraud (AASB/SAICA 2006 – ISA 240R: par. 32(b)):

- “evaluate whether the judgements and decisions made by management in making the accounting estimates included in the financial statements, even if they are individually reasonable, indicate a possible bias on the part of the entity’s management that may represent a risk of material misstatement due to fraud. If so the auditor shall re-evaluate the accounting the estimates taken as a whole; and
- perform a retrospective review of management judgements and assumptions related to significant accounting estimates reflected in the financial statements of the prior year”.

ISA 240R (AASB/SAICA 2006 - ISA 240R: par 6) acknowledges the fact that it is difficult to determine whether material misstatements in terms of accounting estimates are caused by fraud or error. Fraud is likely to be more difficult to detect than error because it may involve concealment and collusion. According to Silverstone and Davia (2005:11) there are three reasons why independent auditors may not detect fraud:

- the responsibility of the independent auditor during a financial statement audit, giving reasonable assurance that that financial statements are free from material misstatement;
- audit failure; and
- the fraud was concealed from the auditors.

The users of financial statements should be aware of the responsibility of the independent auditor. Although the independent auditor is required to approach the audit with professional skepticism, the auditor may not be blamed for financial fraud if the audit is properly planned and conducted in accordance with the ISAs.

Effective audits are the cornerstone of the auditing profession. If the public perceives an audit to be ineffective, the auditor's reputation is on the line. Since independent auditors are not responsible for detecting fraud, there is a gap between the expectations of the users of the financial statements and what the independent auditors deliver (Rezaee 2004:138, 139). In terms of discovering creative accounting and financial fraud, a very important characteristic of the independent auditor should be an attitude of professional skepticism. IFRSs being principal based in turn, requires from auditors a culture of accountability. They must use their best judgement to get to "the best" and not "marginally acceptable" accounting treatment for a transaction (DiPiazza Jr. and Eccles 2002:42).

In the above paragraph the importance of the independent auditor as a link in the "corporate reporting supply chain" has been discussed. From this paragraph it may be concluded that:

- the objective of an audit is to express an opinion on whether the financial statements are prepared in accordance within an applicable financial reporting framework;
- the independent auditor is to give reasonable assurance that the financial statements are free from material misstatement;
- the independent auditor should approach the audit with professional skepticism;
- risk of material misstatements may be greater for judgement matters, for example accounting estimates; and
- the independent auditor will not necessarily detect creative accounting and financial fraud, especially if concealment and collusion are involved.

In the next paragraph Information Distributors as a link in the “corporate reporting supply chain” is discussed.

4.7 INFORMATION DISTRIBUTORS

Information distributors, for example the financial press, have a responsibility to supply financial information to the users of financial statements. It is possible for them to detect and prevent creative accounting and financial fraud.

Gallhofer and Haslam (as quoted by Shah 1998:93) are of the opinion that the financial press could play an important role in restricting creative accounting practices through generating publicity over such practices. Listed companies are likely to be concerned about their public image and would probably avoid creative accounting practices if they were made public.

The following links in the “corporate reporting supply chain” to be discussed are third party analysts and investors (refer to Figure 2 above). These two links in the chain are grouped together because investors base their decisions on either information provided by a third party analyst or their own analysis.

4.8 THIRD PARTY ANALYSTS AND INVESTORS

In paragraph 3.2.2 the motivation and incentives for creative accounting are discussed and it is concluded that creative accounting could mainly be motivated by market expectations, based on smooth earnings that have the incentive of maintained share prices. An important role is played by third party analysts, as part of the “corporate reporting supply chain”, to prevent and detect creative accounting.

Estimated earnings per share numbers, or in a South African context headline earnings per share, is an indication of what analysts expect from an entity in the

future. Collingwood (2001:72) is of the opinion that analysts are fixated on the earnings numbers of entities, ignoring the bigger picture. According to him this is a problem because a complex entity is moulded into a single number. Lev (quoted by Collingwood 2002:72) compares this with a doctor making his diagnosis based only on cholesterol. Of all the users of financial statements, it is expected from analysts to carry out a detailed analysis of an entity and its financial statements and detect any inconsistencies. However, in a study performed by Day (quoted by Shah 1998:96) the evidence showed that the analysts do not conduct any serious analytical research.

The need of the analyst, either as due diligence or as part of an investigation after fraud, should give direction to the analysis and it may involve more than just looking at the numbers. It could require a deeper investigation. The analyst should be on the alert for red flags that are always present in the case of fraud (Silverstone & Sheetz 2007:49, 50). McGreevy (2005:20-21) contends that to be able to understand the make up of the numbers is very important. This is only possible if the dynamics of the business and the strengths and threats that face a company are understood.

In a study performed by Shah (1998:97) he observed a lack of the external monitoring of an entity's performance, especially concerning such aspects as accounting policies. According to him, this low degree of external deterrence seems to be a factor that encouraged creative accounting practices in the UK. It is not only analysts that focus on the earnings' number, but also investors. If investors do not therefore get the information they need from analysts, it is partly because they do not ask for it (Collinwood 2001:73).

David (2004:79) believes the market is on alert because the users of financial statements are aware that managers have a tremendous opportunity to manipulate the numbers through their accounting estimates. The question is whether this scrutiny yields more realistic accounting estimates. According to him most of the reforms adopted to close the gap are aimed at policing the people who make the

estimates and not the estimates themselves. Analysts and investors therefore have a responsibility to rely not only on other links in the “corporate reporting supply chain” to prevent and detect the use of accounting estimates for creative accounting and financial fraud purposes. They have to diligently analyse and question assumptions that have to do with accounting estimates.

From the above it may be concluded that both analysts and shareholders alike are too obsessed with the earnings numbers of entities. With this perspective third party analysts could motivate creative accounting, instead of preventing it. In terms of the detection of creative accounting and financial fraud, analysts and investors have a responsibility to not only scrutinise the financial numbers of an entity, but also to be aware of the strengths of the entity and the threats that the entity is facing. Because of the nature of accounting estimates, the assumption they are based on needs to be carefully analysed.

At the foundation of the “corporate supporting supply chain” are standards setters, market regulators and enabling technologies (refer to Figure 2). In the following paragraph the function and the role of standard setters are highlighted.

4.9 STANDARD SETTERS

Standard setters are responsible for giving structure to the accounting language used by managers to communicate an entity’s financial position and performance to external users. Standard setters will add value if financial statements of different entities could effectively portray differences between their financial position and performance. The conflict between relevance and reliability should be considered. Standards should not over-emphasise reliability because this could lead to financial statements with less relevant and less timely information. Relevance, on the other hand, should also not be over-emphasised because this could lead to financial statements that are viewed with skepticism by the users of financial statements (Healy & Wahlen 1999:366).

In South Africa financial statements of listed companies are prepared to comply with the IFRSs. The IFRSs are developed by the IASB (refer to paragraph 2.2 of this study). According to DiPiazza Jr. and Eccles (2002:35) IFRSs have become very complex in an attempt to keep up with changes in the business environment. Financial statements have become tricky to understand and interpret. What contributes to this is that IFRSs is a mixed model of historical cost, amortised cost and fair values.

Choices between various measurement alternatives create difficulty for the users of financial statements. They complicate the interpretation of amounts in financial statements. It also means that similar economic events could receive different accounting treatment, depending on the choice of measurement (Barth 2006:274).

Some of the different measurement requirements are summarised below:

Table 13: Different measurement requirements

Accounting standard	Measurement requirement
IAS 16 – Property, plant and equipment	Can be measured at either historical cost or fair market value.
IAS 39 – Financial Instruments: recognition and measurement	Certain classes of financial instruments are required to be measured at fair value or amortised cost.
IAS 2 – Inventory	Inventory should be measured at the lower of cost and net realisable value.
IAS 37 – Provisions	Measurement of some provisions requires the discounting to present value.

(Elliot & Elliot 2006:200)

The above table identifies the following different measurement criteria that are, under certain circumstances, allowed by the IFRSs:

- historical cost;
- fair value;
- net realisable value; and
- discounting to present value.

It should be noted that measurement at fair value may, depending on the situation, be at fair value or fair value less cost to sell. If impairment is applicable measurement may also be at value in use. The users of financial statements should have an in-depth knowledge of IFRSs to know and understand when the above measurement requirements are applicable.

It is only if an element is measured at historical cost or at fair value based on recently observed market prices, that an accounting estimate is not involved. According to DiPiazza Jr. and Eccles (2002:44) the usefulness of fair value accounting for the users of financial statements cannot be denied. The greater relevance of fair value accounting however, is often counterbalanced by the reliability of the financial information.

Knowledge of motives that drive creative accounting and the consequences of creative accounting are important to standard setters. It can help them to refine existing accounting standards and expand disclosure requirements with the purpose of preventing creative accounting (Healy & Wahlen 1999:369).

One of the ways to improve the usefulness of accounting estimates is to provide the users of financial statements with the key assumptions used in making the accounting estimates. This will enable the users of financial statements to make their own assessment about the reliability of the assumptions (DiPiazza & Eccles 2002:45).

In this paragraph the responsibility of standard setters as a link in the "corporate reporting supply chain" is highlighted. Disclosure of assumptions used in the making of accounting estimates may lead to the possible prevention and detection of creative accounting and financial fraud. The two standards in the IFRSs that require

some disclosure in terms of accounting estimates are IAS 1 (AC 101) *Presentation of Financial Statements* and IFRS 7 (AC 144) *Financial Instruments: Disclosure*. In the following sub-paragraphs IAS 1 and IFRS 7 are discussed.

4.9.1 IAS 1 (AC 101)

Disclosures in terms of accounting estimates are specifically required in IAS 1 (AC 101). IAS 1 (AC 101) *Presentation of Financial Statements* has, amongst others, the objective to specify disclosures about key sources of estimation uncertainty at the balance sheet date (IASB/SAICA 2006 - IAS 1(AC 101) par. IN3).

“An entity shall disclose in the notes information about the key assumptions concerning the future, and other key sources of estimation uncertainty at the balance sheet date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year. In respect of those assets and liabilities, the notes shall include details of (IASB/SAICA 2006 - IAS 1(AC 101) par. 116):

- their nature; and
- their carrying amount as at the balance sheet date.”

The above information is important to users of financial statements to help them form an opinion on the reliability of accounting estimates.

The key assumptions and other key sources of estimation uncertainty that should be disclosed, relate to the estimates that require management’s most difficult, subjective or complex judgements (IASB/SAICA 2006 - IAS 1(AC 101) par. 117). The requirement for disclosure of estimation uncertainty deals with situations where information is incomplete (PWC 2006:4085).

Some examples of the type of disclosures required are the following (IASB/SAICA 2006 - IAS 1(AC 101) par. 120):

- “the nature of the assumption or other estimation uncertainty;
- the sensitivity of carrying amounts to the methods, assumptions and

estimates underlying their calculation, including the reasons for the sensitivity;

- the expected resolution of an uncertainty and the range of reasonably possible outcomes within the next financial year in respect of the carrying amounts of the assets and liabilities affected; and
- an explanation of changes made to past assumptions concerning those assets and liabilities, if the uncertainty remains unresolved.”

The information required by IAS 1 is quite extensive. It is important to note that these disclosures are not required for all accounting estimates in financial statements, but only for those that are the most difficult and subjective to make.

For the first time the IFRSs required the disclosure of key sources of estimation uncertainty in IAS 1 that has been revised during March 2004. Financial statements for year-ends commencing after 1 January 2005 will have to comply with this requirement.

Refer to Table 1 in Chapter 2 for an indication of the number of accounting estimates required by the IFRSs. As evident from the above paragraphs, the type of information required by IAS 1 (AC 101) to be disclosed that deals with key assumptions can be helpful to the users of financial statements to evaluate the reliability of accounting estimates. In the next paragraph IFRS 7, which deals with the disclosure requirements of financial instruments, is discussed.

4.9.2 IFRS 7 (AC 144)

In the absence of market values, fair values are estimated using a valuation technique. The objective of IFRS 7 (AC 144) *Financial Instruments: Disclosures* is to require entities to provide disclosures in their financial statements that enable users to evaluate the significance of financial instruments and the extent of the risk arising from these instruments (IASB/SAICA 2006 - IFRS 7 (AC 144) par. 1). These disclosure requirements could be important in the detection of creative accounting.

If the fair value of the financial asset or financial liability is calculated not by reference to published price quotations in an active market, but estimated using a valuation technique, the following should be disclosed (IASB/SAICA 2006 – IFRS 7 (AC 144) par. 27):

- “the methods and, when a valuation technique is used, the assumptions applied in determining fair values of each class of financial assets or financial liabilities. For example, if applicable, an entity discloses information about the assumptions relating to prepayment rates, rates of estimated credit losses, and interest rates or discount rates;
- whether fair values are determined, in whole or in part, directly by reference to published price quotations in an active market or are estimated using a valuation technique;
- whether the fair values recognised or disclosed in the financial statements are determined in whole or in part using a valuation technique based on assumptions that are not supported by prices from observable current market transactions in the same instrument (ie without modification or repackaging) and not based on available observable market data. For fair values that are recognised in the financial statements, if changing one or more of those assumptions to reasonably possible alternative assumptions would change fair value significantly, the entity shall state this fact and disclose the effect of those changes. For this purpose, significance shall be judged with respect to profit or loss, and total assets or total liabilities, or, when changes in fair value are recognised in equity, total equity; and
- if the above applies, the total amount of the change in fair value estimated using such a valuation technique that was recognised in profit or loss during the period”.

The above disclosures required by IFRS 7 (AC 144) in terms of fair values may be of use to the users of financial statements to enable them to evaluate the reliability of fair values. Refer to Table 8 in Chapter 2 for an indication of the number of “fair value” hits in the IFRSs.

Standard setters, market regulators and enabling technologies form the foundation of the “corporate reporting supply chain” (refer to Figure 2). In the next paragraph the role of market regulators in the prevention and detection of creative accounting is discussed.

4.10 MARKET REGULATORS

Market regulators as a link in the “corporate reporting supply chain” could play a role in the prevention and detection of creative accounting and financial fraud because of possible legal backing for the use of IFRSs and certain listing requirements that need to be complied with. According to DiPiazza and Eccles (2002:12) both stock exchanges and legislative bodies play a role as market regulators. In the case of South Africa, the Companies Act of 1973 and the Johannesburg Stock Exchange (JSE) are fulfilling these regulating functions. The influence from both the Companies Act and the JSE are discussed below.

4.10.1 Companies Act

The Companies Act as used in South Africa has been in existence since 1973. De Beer (2005:30 and 32) SAICA’s Senior Executive: Standards, is of the opinion that because of significant changes in the business environment and market practices, a comprehensive review of South African corporate law is important. The Department of Trade and Industry (DTI) is executing the overhaul and update of the Companies Act in two phases. The first phase, namely the Corporate Laws Amendment Act, addressing a number of urgent matters, has already gone through the parliamentary process and has been signed by the President. The second phase, entailing a review of the Companies Act, is expected to be issued for public comment during 2008.

The duties of directors are provided for at common law and the statutory duties in terms of the company law. A statement of directors’ duties in the new revised Companies Act could retain flexibility and clear up the confusion on what exactly the

duties of directors are (Mongalo 2005:39).

Both IAS 1 and IFRS 7, which form part of the IFRSs and that have been discussed above, require some disclosure to enable the users of financial statements to evaluate the reliability of accounting estimates. These disclosure requirements however, will be of no use if financial statements are prepared without taking these disclosure requirements into account. Entities need to be "forced" to comply with the IFRSs; in other words legal backing is needed for the IFRSs.

In terms of the Companies Act, widely held companies must comply with financial reporting standards. According to the Companies Act section (6) (a) a company is widely held if (SAICA Legislation Handbook 2007/2008:11):

- its articles provide for an unrestricted transfer of its shares;
- it is permitted by its articles to offer shares to the public;
- it decides by special resolution to be a widely held company; or
- it is a subsidiary of a company described in the above.

Widely held companies must comply with Statements of Generally Accepted Accounting Practice (GAAP) adopted by the Accounting Practice Board. These standards must be in accordance with the IFRSs.

The fact that the Corporate Laws Amendment Act gives legal backing to the preparation of financial statements in accordance with the IFRSs, together with the FRIP (refer to paragraph 4.4), they could be an important deterrent against creative accounting.

4.10.2 The JSE

All companies listed on the JSE Securities Exchange are required to comply with the listing requirements of the JSE Securities Exchange. The JSE, in terms of its listing requirements, requires full compliance with IFRSs from 1 January 2005 (Stainbank and Oakes 2005:2).

“The Listings Requirements contain the rules and procedures governing new applications, all corporate actions and continuing obligations applicable to issuers and issuers of specialist securities. They are furthermore aimed at ensuring that the business of the JSE is carried on with due regard to the public interest” (JSE Listing requirements).

The Listing Requirements are set out in different sections of which section 8 deals with financial information. Requirements for profit forecasts and estimates may be found in paragraphs 8.35 to 8.44 in the Listing Requirements. “Any profit forecast or estimate must be presented in an explicit manner and must be compiled using accounting policies applied by the applicant user” (JSE Listing requirements par. 8.36).

The listing requirements of the JSE require:

- full compliance with IFRSs; and
- accounting estimates to be explicitly presented.

The above requirements could lead to the prevention and detection of creative accounting and financial fraud, with specific reference to accounting estimates. In the next paragraph, the last link in the “corporate reporting supply chain”, namely enabling technologies, is discussed.

4.11 ENABLING TECHNOLOGIES

The users of financial statements prefer current up-to-date financial information on which to base their decisions. This financial information may contribute towards the prevention and possible early detection of creative accounting. According to DiPiazza Jr. and Eccles (2002:129) current reporting formats provide too little

information too late to enable the users of financial statements to make critical, timely decisions. Current financial reporting (for example, document files in PDF or HTML) requires the manual transfer of data to different formats before further processing and analysis are possible. They are of the opinion that the "corporate reporting supply chain" should adopt new technologies and use the Internet to its fullest advantage (DiPiazza Jr. and Eccles 2002:131).

The Extensible Business Reporting Language (XBRL) is the language that is expected to "revolutionise" or "transform" business reporting leading to "wondrous new financial reporting capabilities." "Using XBRL each item of data in a financial report carries its own identification 'tag' that provides contextual information about that data point" (Doolin and Troshani 2004:94). The advantages of using XBRL are the following (Doolin and Troshani 2004:94):

- context accompanies content, providing computer readable data that can be recognised, selected and presented in customised formats; and
- continuous auditing will maximise the transparency with which financial information is reported.

By using XBRL, data could be presented in such a way that the users of financial statements could verify the financial performance and position of the entity. This could be a step in the right direction in terms of the detection of creative accounting.

4.12 CONCLUSION

One of the objectives of the study is to determine what is required of the "corporate reporting supply chain" to prevent and detect creative accounting practices and fraud, with special reference to accounting estimates. In the wake of some financial disasters, these checks and balances should restore public trust in financial reporting. In this chapter the corporate reporting supply chain was defined and the different role players were discussed in terms of the requirements that could work either in the prevention or detection of creative accounting in hand.

Company executives are in the most favourable position to “cook the books” if they have the intention to do so and lack the necessary integrity. A number of proactive and reactive mechanisms are in place to keep company executives from changing financial reporting into non-fiction. Corporate culture and corporate ethical values play a very important role in the prevention of creative accounting and financial fraud. Corporate governance, dealing with these issues, has accountability and reliability as an underlying concept. Although internal controls are a strong defence against creative accounting and fraud, they provide only reasonable assurance, since the “tone at the top” could have an adverse influence on the control environment.

The board of directors, the audit committee, the internal control function and the independent auditor are all on the watch for creative accounting and fraud. It should be noted that Chapter 3 concluded that accounting estimates could be used as a tool in the practice of creative accounting and fraud. Both accounting standards and auditing standards include standards that specifically deal with accounting estimates. Within the new Corporate Laws Amendment Act, legal backing for the preparation of financial statements according to IFRSs is proposed, which could be an efficient deterrent for creative accounting and fraud.

Creative accounting and fraud seem to stem from a lack of ethical values and integrity. A number of watchdogs, rules and regulations are put in place to prevent and detect creative accounting and fraud. In the next chapter an analysis of financial statements is performed with the purpose of calculating a percentage of assets that are affected by accounting estimates.

CHAPTER 5

EMPIRICAL STUDY OF FINANCIAL STATEMENTS

5.1 INTRODUCTION

In the previous chapters a literature study has been performed with the objective of examining the effect of accounting estimates in financial statements. In this chapter an analysis of financial statements is performed with the same objective.

In Chapter 2 it was indicated that the balance sheet of an entity, to a large extent, consists of accounting estimates. Refer to Appendix C for an indication of allowed accounting estimates in the IFRSs. In this chapter, an analysis of the companies that form part of the empirical group will be performed to calculate the percentage of total assets that include amounts based on accounting estimates.

The risk that accounting estimates could be used to manipulate financial statements was examined in Chapter 3. It was concluded that the intention of management plays an important role in the possible use of accounting estimates with the purpose to deceive. The checks and balances that were put in place by the “corporate reporting supply chain” to prevent and detect creative accounting and financial statement fraud, have therefore been discussed in Chapter 4. One of the “prevention and detection” mechanisms that has recently been put in place by standards setters is the requirement in IAS 1 (AC 101) to disclose the key assumptions used in making accounting estimates. With the purpose of establishing whether financial statements adhere to this requirement, all references to accounting estimates and disclosure on accounting estimates in the financial statements of the companies that form part of the empirical group, are examined and summarised. In the next paragraph the scope of the empirical research will be discussed.

5.2 SCOPE OF EMPIRICAL RESEARCH

The empirical study will focus on the financial statements of companies within the Construction and Material sector of the JSE. The reason for this choice is that construction companies have large investments in property, plant and equipment, which are subject to accounting estimates. Revenue in terms of incomplete contracts is also calculated by making use of accounting estimates.

The analysis will be limited to listed construction companies with a Construction Industry Development Board (CIDB) nine grading. The grading of nine indicates that there is no limit put on the amount for which the companies are allowed to tender. The following companies at December 2006 comply with the above criteria (Profile's Stock Exchange Handbook: June – September 2006:30):

Table 14: Companies included in the empirical study

Contractor name	Short name	Financial Year-end	Auditor
Aveng Ltd	AVENG	30 June	Ernest & Young
Basil Read Holdings Ltd	BASREAD	31 December	PWC
Group Five Ltd	GROUP 5	30 June	PWC
Murray and Roberts Holdings Ltd	M&R-HLD	30 June	Deloitte & Touche
Wilson Bayly Holmes – Ovcon Ltd	WBHO	30 June	BDO Spencer Steward (Johannesburg) Inc.

Financial statements for a financial year ended before 1 January 2005 and financial statements for two financial years ended after 1 January 2005 are analysed. The reason for this is that entities are obliged to apply IFRSs for annual periods beginning on or after 1 January 2005. The use of accounting estimates is examined by comparing the financial statements for year-ends before and after 1 January 2005 for each of the companies in the empirical group.

In the following paragraph the percentage of total assets affected by accounting estimates for each of the companies in the empirical group is calculated and discussed. This percentage will give an indication of how often accounting estimates are used in the calculation of the carrying amounts of assets.

5.3 PERCENTAGE OF TOTAL ASSETS AFFECTED BY ACCOUNTING ESTIMATES

5.3.1 Introduction and Methodology

In order to calculate the percentage of total assets affected by accounting estimates, the consolidated balance sheets of each of the companies in the empirical group is analysed. The consolidated financial statements made available on the web sites of the companies in the empirical group are used for this analysis. For the financial years ending in 2004, 2005 and 2006 a table has been prepared which indicates the carrying amounts per line item of total assets. The applicable notes on each of the line items were examined to establish whether accounting estimates had been used and to calculate an amount per line item affected by accounting estimates. If there is no reference in the note to the use of an accounting estimate the specific carrying amount is excluded from the calculation. A percentage of assets affected by accounting estimates is calculated per line item by dividing the carrying amount per line item affected by accounting estimates with the total carrying amount for the specific line item. Refer to Appendix D for the detailed tables.

The above-mentioned tables that form part of Appendix D have been summarised in the following paragraphs 5.3.1.1 to 5.3.1.5. These paragraphs indicate for each of the companies in the empirical group the percentage of assets per line item affected by accounting estimates for 2004, 2005 and 2006. An indication is also given of the specific accounting estimate used in the calculation of the carrying amount recognised on the balance sheet.

5.3.1.1 Aveng Ltd (Aveng)

Table 15: Percentage of assets affected by accounting estimates: Aveng

30 June	2004	2005	2006	Accounting estimate
ASSETS	%	%	%	
Property, plant and equipment	99	96	100	Useful life
Goodwill and other intangibles	100	100	100	Useful life (2004), Impairment (2005 and 2006)
Investments in associates and joint ventures	100	100	100	Impairment (2004 and 2005); Fair value adjustment of unlisted entity (2006).
Other investments	100	100	100	Fair value adjustment of unlisted investment
Deferred tax	0	0	0	
Inventories	0	0	0	
Trade and other receivables	53	59	54	Percentage of completion
Cash and cash equivalents	0	0	0	
Total	59	58	52	

The reasons for the variances in the percentages of assets affected by accounting estimates, over the three years are as follows:

- the financial statements for the years ended 2004 and 2005 disclose long leasehold assets as part of property, plant and equipment, which are depreciated over the lease term. These assets have been excluded from the amounts used to calculate the amount affected by accounting estimates because depreciation is not based on an estimated useful life. In 2006 this information on long leasehold assets is not disclosed and the full amount of property, plant and equipment is included as an amount affected by accounting estimates; and
- in terms of "trade and other receivables" contracts in progress less contract cost and contract debtors are included in amounts affected by accounting estimates for 2004, 2005 and 2006. The calculation of these amounts is based on an estimated percentage of completion.

Aveng's percentage of total assets affected by accounting estimates are shown to decrease over the three indicated years. One of the reasons for the decrease in the percentage of assets affected by accounting estimates is that at 30 June 2006 cash

and cash equivalents, which are not affected by accounting estimates, forms a higher percentage of total assets than in the previous years (refer to Appendix D.1).

5.3.1.2 Basil Read Holdings Ltd (Basread)

Table 16: Percentage of assets affected by accounting estimates: Basread

31 December	2004	2005	2006	Accounting estimate
ASSETS	%	%	%	
Property, plant and equipment	95	92	99	Useful life
Investment property	100	100	0	Fair value adjustment based on open market value
Intangible assets	0	0	100	Impairment testing (goodwill) and useful life (other)
Investments	99	99	0	Fair value adjustment of unlisted investment
Investment in associates	100	100	100	Fair value adjustment of unlisted investment
Deferred taxation	0	0	0	
Available-for-sale financial assets	0	0	0	
Inventories	0	0	0	
Contract debtors and retentions	100	100	100	Percentage of completion
Receivables and pre-payments	0	0	0	
Taxation	0	0	0	
Cash and cash equivalents	0	0	0	
Total	65	53	48	

The reasons for the variances in the percentages of assets affected by accounting estimates, over the three years are as follows:

- property, plant and equipment include amounts for land and buildings. In 2004 and 2005 it is not possible to distinguish the land (not-depreciable) from the buildings (depreciable). Land and buildings are in total excluded from the amount affected by accounting estimates in 2004 and 2005. In 2006 the amount affected by accounting estimates excludes the cost of land as disclosed in the notes;
- investment properties have been disposed of during 2006;
- intangible assets are acquired during 2006;
- the line-item "investments" are re-classified for the first time as "available-for-

sale” during 2006. Available for sale investments comprise listed investments only. The fair value of listed investments are calculated with reference to the shares market price at the financial year-end and are therefore excluded from the calculation since no estimates are required.

Basread’s percentage of total assets affected by accounting estimates was shown to decrease over the three years. One of the reasons for the decrease in the percentage of assets affected by accounting estimates is that at 31 December 2006 cash and cash equivalents, which are not affected by accounting estimates, form a higher percentage of total assets than in the previous years (refer to Appendix D.2).

5.3.1.3 Group Five Ltd (Group 5)

Table 17: Percentage of assets affected by accounting estimates: Group 5

30 June	2004	2005	2006	Accounting estimate
ASSETS	%	%	%	
Property, plant and equipment	97	95	99	Useful life
Investment property	0	0	0	
Investment in associates	0	0	0	
Investment in service concessions	70	75	100	Fair value of unlisted investment
Deferred taxation	0	0	0	
Inventories	0	0	100	Obsolete
Contracts in progress	100	100	100	Percentage of completion
Trade and other receivables	82	88	86	Retention debtors and contract debtors
Cash and cash equivalents	0	0	0	
Non-current assets classified as held for sale	0	0	0	
Total	67	71	69	

The following give an indication of the reasons for the variances in the percentages of assets affected by accounting estimates, over the three years:

- property, plant and equipment include investment property (2004 and 2005). Investment property at cost is excluded from the amounts affected by accounting estimates. Capital work in progress is not depreciated and excluded from the

calculation (2006);

- one of the service concessions (2004 and 2005) is valued at a market share price and is excluded from the calculation. This concession was sold during 2005; and
- retention and contract debtors are included in the line-item "trade and other receivables" and are included in the calculation of the percentage of assets affected by accounting estimates because these amounts are calculated by using a percentage of completion that is an estimate.

Group 5's percentage of total assets affected by accounting estimates was shown to be increasing from 2004 to 2005, and decreased from 2005 to 2006. One of the reasons for the decrease in the percentage of assets affected by accounting estimates is that at 30 June 2006 cash and cash equivalents, which are not affected by accounting estimates, form a higher percentage of total assets than in the previous years (refer to Appendix D.3).

5.3.1.4 Murray and Roberts Holdings Ltd (M&R-HLD)

Table 18: Percentage of assets affected by accounting estimates: M&R-HLD

30 June	2004	2005	2006	Accounting estimate
ASSETS	%	%	%	
Property, plant and equipment	100	100	100	Useful life
Investment property	100	100	100	Useful life
Goodwill	100	100	100	Amortisation (2004), Impairment (2005), Acquisition (2006)
Other intangible assets	0	0	100	Amortisation and impairment testing (infinite useful life)
Investment in associates	0	100	0	Fair value of acquisition
Other investment	32	38	45	Fair value adjustment of unlisted investment
Deferred taxation	0	0	0	
Operating lease receivables	0	0	0	
Inventories	0	0	0	
Contracts in progress	100	100	100	Percentage of completion
Trade and other receivables	71	75	77	Provision for doubtful debts
Deferred operating lease income accrual	0	0	0	
Derivate financial instruments	0	0	0	
Bank balance and cash	0	0	0	
Assets classified as held-for-sale	0	0	0	
Total	53	56	62	

The following give an indication of the reasons for the variances in the percentages of assets affected by accounting estimates, over the three years:

- other intangible assets are for the first time reported under IFRSs (2006);
- an investment in an associate was acquired during 2005 and fair valued;
- listed investments that form part of the line-item "Other investments" are excluded from the calculation of the percentage of assets affected by accounting estimates; and
- trade receivables less the provision for doubtful debts are included in the calculation of the percentage of assets affected by accounting estimates;

M&R-HLD's percentage of total assets affected by accounting estimates was shown to increase over the three years. One of the reasons for the increase in the

percentage of assets affected by accounting estimates is that at 30 June 2006 cash and cash equivalents, which are not affected by accounting estimates, form a lower percentage of total assets than in the previous years (refer to Appendix D.4).

5.3.1.5 Wilson Bayly Holmes Ovcon Ltd (WBHO)

Table 19: Percentage of assets affected by accounting estimates: WBHO

30 June	2004	2005	2006	Accounting estimate
ASSETS	%	%	%	
Property, plant and equipment	96	98	98	Useful life
Goodwill	100	100	100	Amortisation (2004 and 2005), Impairment (2006)
Investments in associates	0	0	55	Fair value adjustment of unlisted investment
Investments in securities	0	0	97	Fair value adjustment of unlisted investment
Long term receivables	5	1	34	Provision for non-recoverability
Inventories	0	0	12	Obsolete
Contracts in progress	100	100	100	Percentage of completion
Debtors	0	0	0	
Cash and cash equivalents	0	0	0	
Non-current assets classified as held for sale	0	0	0	
Total	54	59	63	

The reasons for the variances in the percentages of assets affected by accounting estimates, over the three years are as follows:

- the cost of land disclosed in the property, plant and equipment note is excluded from the calculation of the percentage of assets affected by accounting estimates;
- one of the investments in associates has been fair valued (2006) and is included in the calculation. The other investments in associates are at cost plus attributable post acquisition profits and are excluded from the calculation of the percentage of assets affected by accounting estimates;
- unlisted investments in securities are for the first time fair valued (2006) and included in the calculation; and
- loans on which there is a provision for non-recoverability are included in the

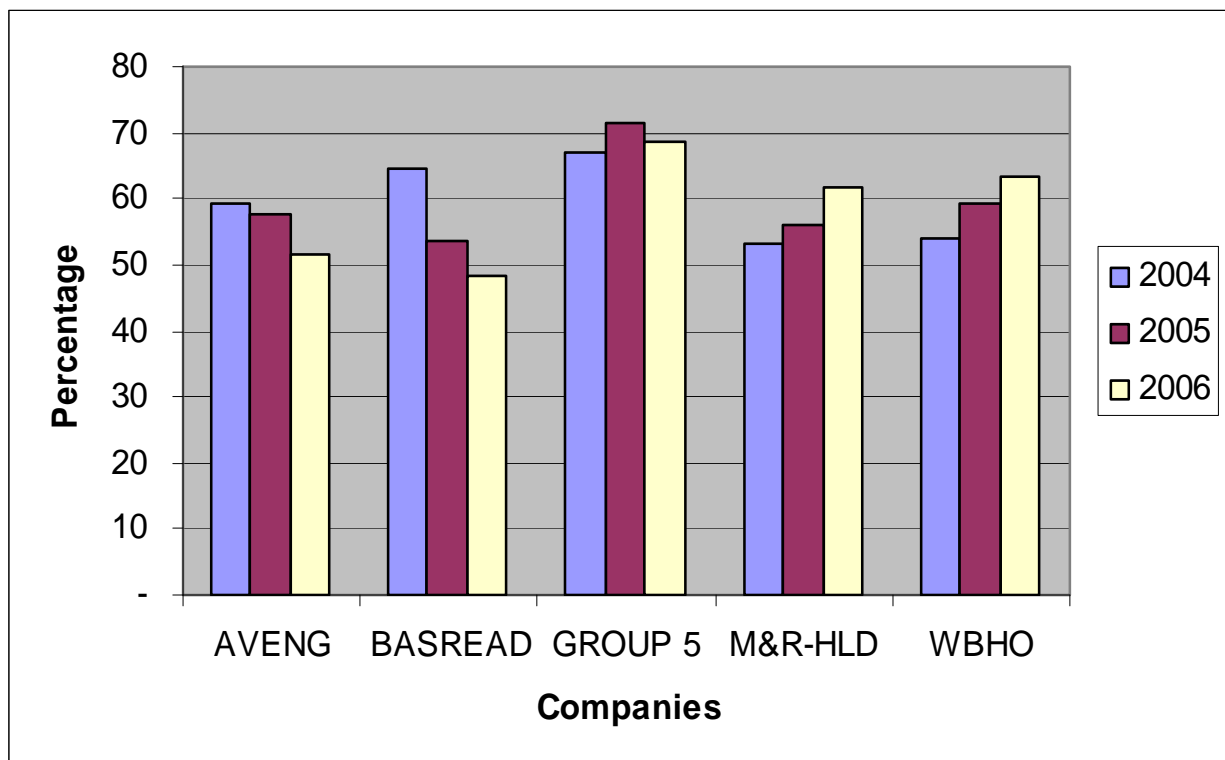
calculation of the percentage of assets affected by accounting estimates.

WBHO's percentage of total assets affected by accounting estimates was shown to increase over the three years. One of the reasons for the decrease in the percentage of assets affected by accounting estimates is that at 30 June 2006 cash and cash equivalents, which are not affected by accounting estimates, form a lower percentage of total assets than in the previous years (refer to Appendix D.5).

5.3.2 Summary: Percentage of assets affected by accounting estimates

The following graph is a summary of the above percentages of assets affected by accounting estimates for the five companies analysed over the three years:

Graph 1: Percentage of assets affected by accounting estimates

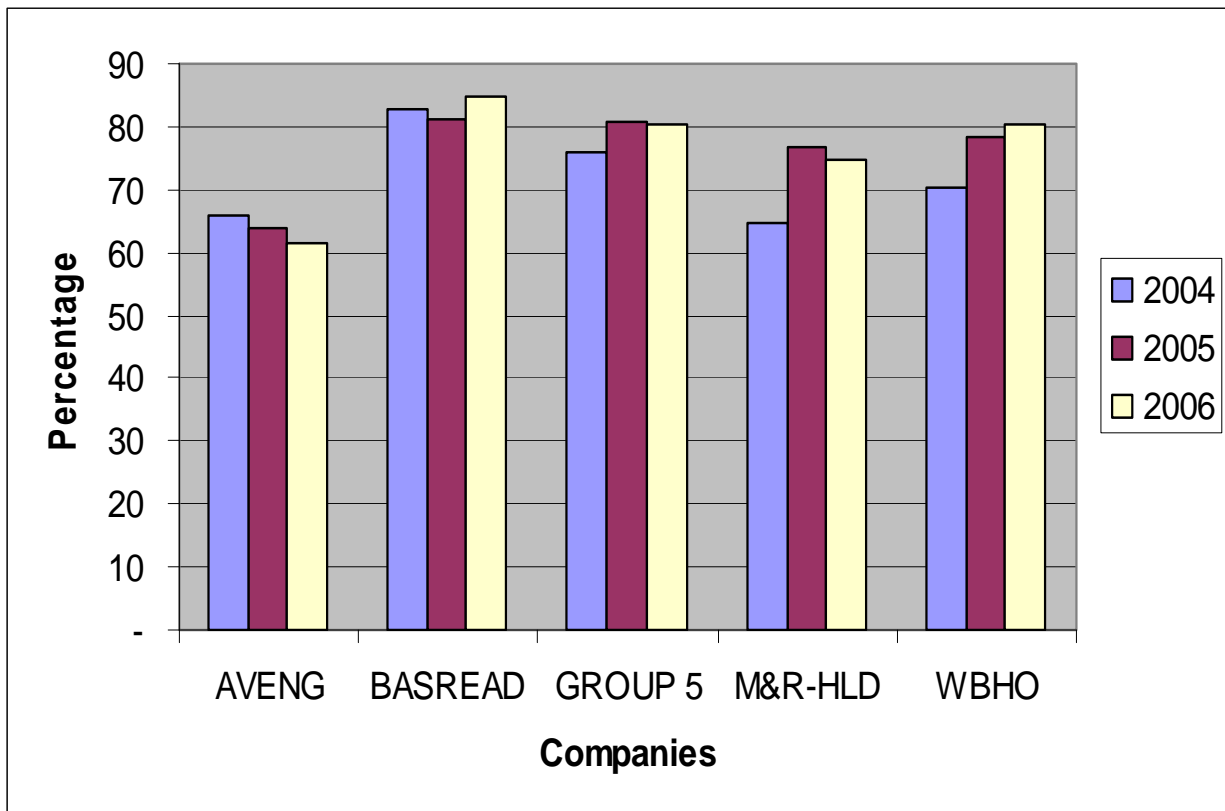


From the above graph it is clear that there is no pattern between the five companies in terms of the percentage of total assets affected by accounting estimates. Two of

the companies (Aveng and Basread) show decreasing percentages over the three years, whilst two companies (M&R-HLD and WBHO) show increasing percentages over the three years. With the exception of Basread (2006) the percentage of assets affected by accounting estimates is more than 50% for all the companies over the three years.

Total assets for all the companies include cash and cash equivalents and are, in all cases, excluded from assets that are affected by accounting estimates. Cash and cash equivalents as a percentage of total assets have an influence on the percentage of total assets affected by accounting estimates since the recognition of cash and cash equivalents is not affected by accounting estimates. Graph 2 below gives a picture of assets affected by accounting estimates excluding cash and cash equivalents.

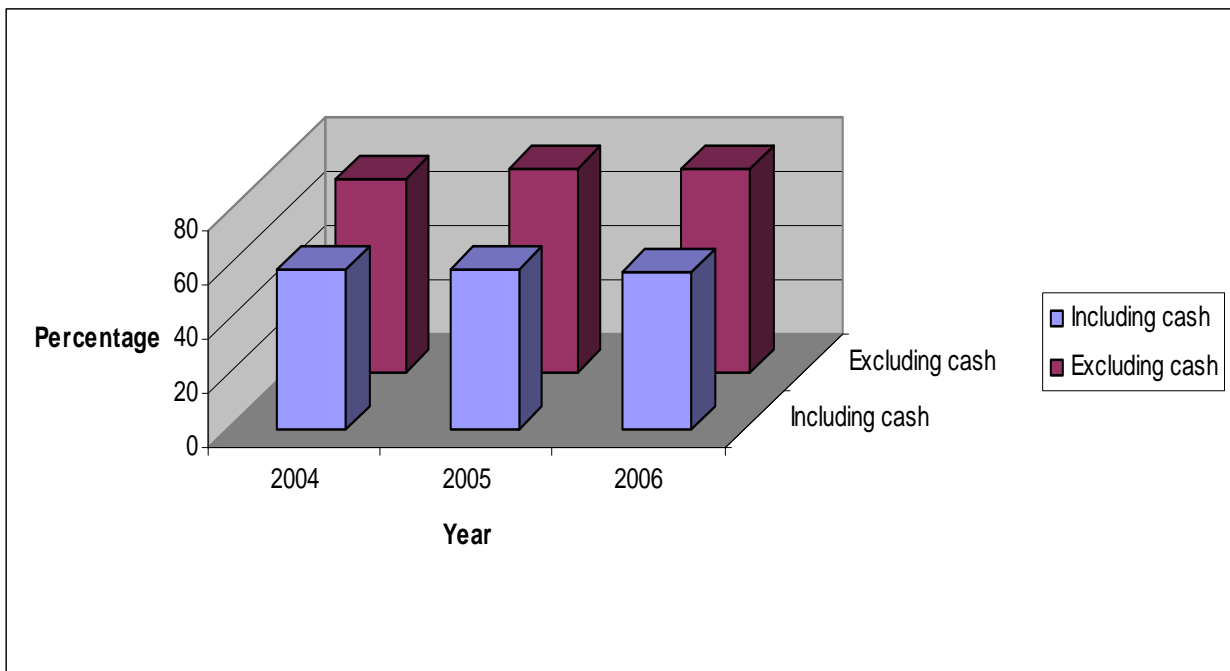
Graph 2: Percentage of assets (excluding cash) affected by accounting estimates



The difference in the percentage of assets affected by accounting estimates between Graph 1 and Graph 2 is an indication of the percentage of cash and cash equivalents that form part of total assets. Basread (2006) shows a more than 30% increase in assets affected by accounting estimates if cash and cash equivalents are excluded from the calculation.

If cash and cash equivalents are excluded from the percentage of assets affected by accounting estimates, the percentage is more than 60% (Graph 1: 50%) for all the companies over the three years. The average percentages of assets of the five companies affected by accounting estimates, including cash and cash equivalents are 60% for 2004, 60% for 2005 and 59% for 2006. If cash and cash equivalents are excluded from the calculation of assets affected by accounting estimates, the average percentages are 72% for 2004, 77% for 2005 and 76% for 2006. Graph 3 below provides a picture of the average assets of the five companies affected by accounting estimates, including and excluding cash, over the three years.

Graph 3: Average percentage of assets of the five companies affected by accounting estimates



It may be concluded that the percentage of assets affected by accounting estimates

is high for all five companies. It should be taken into account that accounts receivable, assets held for sale and deferred tax are excluded from the percentage of assets affected by accounting estimates because no information is disclosed to indicate that estimates are used to calculate the carrying amounts of these line items. The actual percentage of assets affected by accounting estimates could therefore be higher than calculated above, because under certain circumstances the measurements of accounts receivable, assets held for sale and deferred tax are based on accounting estimates.

In this paragraph the percentage of assets affected by accounting estimates, including and excluding cash and cash equivalents have been calculated for the five companies in the empirical group, over the three indicated years. In the following paragraph the reference to estimates in the financial statements of the five companies in the empirical group over three years are discussed.

5.4 REFERENCE TO "ESTIMATES" IN THE FINANCIAL STATEMENTS

5.4.1 Introduction and methodology

In Chapter 2 of this study an electronic keyword search was conducted to establish the occurrence of allowed accounting estimates in the IFRSs. Refer to Table 1 for a summary of the total number of accounting "estimate" hits. Table 1 indicates an increase in the number of paragraphs in IFRSs from 2003 to 2006, which contain the words "estimate", "estimated", "estimates", "estimating", "estimation" and "estimations".

In order to establish the occurrences of "estimates" and a possible increase in the use thereof in the financial statements of the five companies in the empirical group, an electronic search was also conducted. The financial statements made available in a "PDF" format on the Internet were used for the search. The word "estimate" was searched in all five companies for three consecutive years. Due to an unknown

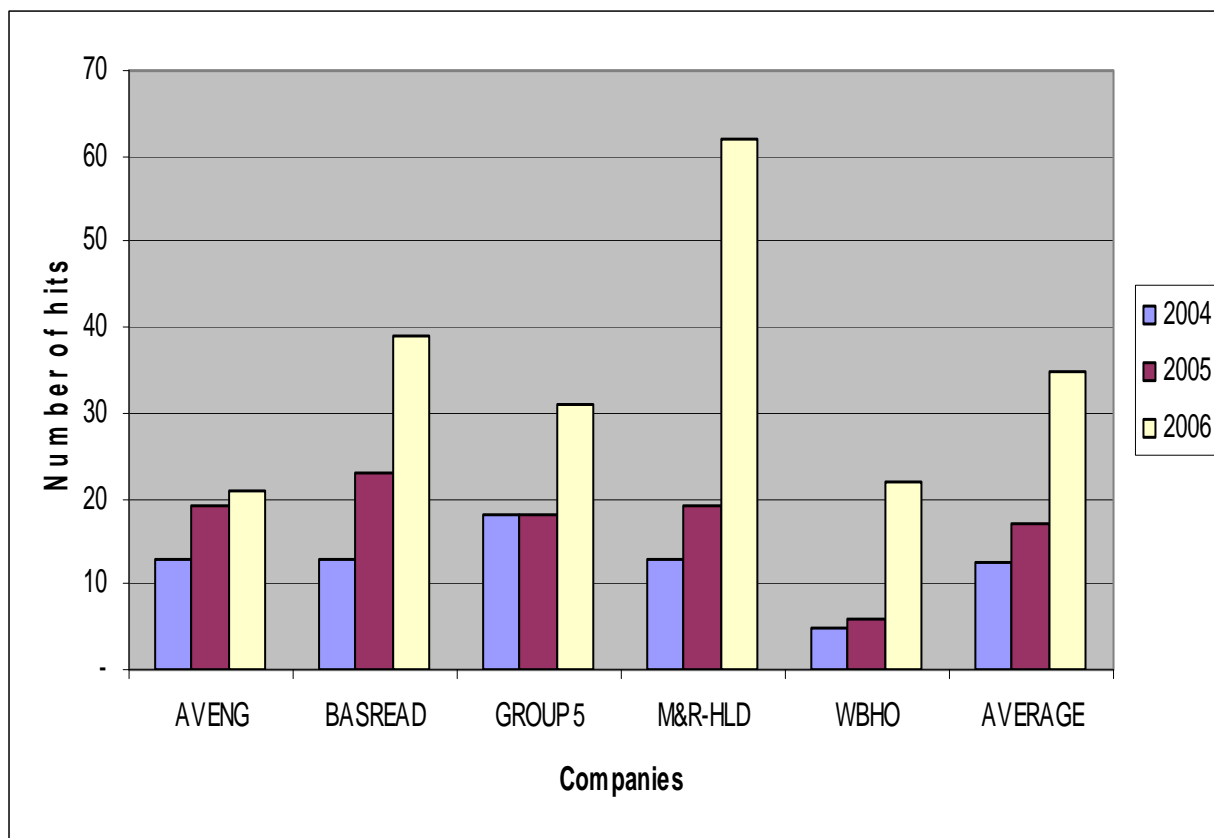
technical problem, an electronic search was not possible on the financial statements of WBHO for the financial year ended 30 June 2006. A physical count was performed making use of a printout of the financial statements that were obtained from the company's website.

In the next paragraph an indication is given of the number of "estimate" hits in the financial statements of the five companies in the empirical group. It is suspected that the number of "estimate" hits in the financial statements will increase over the number of years to reflect the increase in "estimate" hits in the IFRSs.

5.4.2 Number of "estimate" hits in financial statements

The following graph gives an indication of the number of "estimate" hits in the financial statements over three years:

Graph 4: Number of “estimate” hits in financial statements of selected companies



The “average” category from the above graph indicates that there is a definite increase in the number of “estimate” hits over the three years within the financial statements of the five companies. For all five companies, the largest number of “estimate” hits can be found in the financial statements for the financial year ended during 2006. M&R-HLD shows the largest number of “estimate” hits of all companies in 2006. The least number of “estimate” hits over all three years were found in the financial statements of WBHO. Note that the number of hits indicated on the above graph gives only an indication of “estimate” hits in the financial statements of the five companies.

The increased number of “estimate” hits (refer to Graph 4) in the financial statements of the companies analysed correlates with the increased number of accounting “estimate” hits found in the IFRSs (refer to Table 1). It may be concluded that the financial statements reflect the increased number of accounting

“estimate” hits in the IFRSs. Refer to the reasons for the increased accounting “estimate” hits given in paragraph 2.6.5 of this study.

A summary of all the “estimate” hits in the financial statements has been prepared for each of the five companies analysed. These summaries give an indication, per component of the financial statements, of the context in which the “estimate” has been used. These lengthy summaries can be found in Appendix E.

In the following paragraphs the number of “estimate” hits is indicated for each of the different components of the annual reports. The paragraphs below also give an indication of “other” estimate hits that were counted as part of the annual report but do not form part of the financial statements. Note that these “estimate” hits that form part of the rest of the annual reports, referred to as “other”, are not indicated in the above Graph 4 and are not summarised in Appendix E. The reason is that the focus is on the effect of estimates in the financial statements.

5.4.2.1 Aveng Ltd (Aveng)

Table 201: Number of “estimate” hits: Aveng

Component	2004		2005		2006	
	Number	%	Number	%	Number	%
Report of independent auditors	1	7	1	4	1	3
Directors’ report	1	7	-	-	-	-
Group income statement	-	-	-	-	-	-
Group statement of changes in equity	-	-	-	-	-	-
Accounting policies	6	43	13	50	14	36
Notes to the financial statements	5	36	5	19	6	15
Total number of hits in the financial statements	13	93	19	73	21	54
Other	1	7	7	27	18	46
Total number of hits in the annual reports	14	100	26	100	39	100

In total there is an increase in the number of “estimate” hits in the financial

statements of Aveng from 2004 to 2006. In 2004 and 2005 the highest percentage of "estimate" hits is found in the accounting policies component of the financial statements. In 2006 the highest percentage of "estimate" hits is found in the "other" component of the annual report, which gives an indication of "estimate" hits that do not form part of the financial statements.

5.4.2.2 Basil Read Holdings Ltd (Basread)

Table 21: Number of "estimate" hits: Basread

Component	2004		2005		2006	
	Number	%	Number	%	Number	%
Report of independent auditors	1	7	1	4	2	5
Directors' report	-	-	-	-	-	-
Group income statement	-	-	-	-	-	-
Group statement of changes in equity	-	-	-	-	-	-
Accounting policies	9	60	9	35	13	31
Notes to the financial statements	3	20	13	50	24	57
Total number of hits in the financial statements	13	87	23	89	39	93
Other	2	13	3	11	3	7
Total number of hits in the annual reports	15	100	26	100	42	100

In total there is an increase in the number of "estimate" hits in the financial statements of Basread from 2004 to 2006. In 2004 the highest percentage of "estimate" hits is found in the accounting policies component of the financial statements. In 2005 and 2006 the highest percentage of "estimate" hits is found in the notes to the financial statements component.

5.4.2.3 Group Five Ltd (Group 5)

Table 22: Number of “estimate” hits: Group 5

Component	2004		2005		2006	
	Number	%	Number	%	Number	%
Report of independent auditors	1	5	1	3	1	3
Directors’ report	-	-	-	-	-	-
Group income statement	-	-	-	-	-	-
Group statement of changes in equity	-	-	-	-	-	-
Accounting policies	11	58	11	37	22	60
Notes to the financial statements	6	32	6	20	8	22
Total number of hits in the financial statements	18	95	18	60	31	85
Other	1	5	12	40	6	15
Total number of hits in the annual reports	19	100	30	100	37	100

In total there is an increase in the number of “estimate” hits in the financial statements of Group 5 from 2004 to 2006. For all three years the highest percentage of “estimate” hits is found in the accounting policies component of the financial statements.

5.4.2.4 Murray and Roberts Holdings Ltd (M&R-HLD)

Table 23: Number of “estimate” hits: M&R-HLD

Component	2004		2005		2006	
	Number	%	Number	%	Number	%
Report of independent auditors	1	8	1	5	1	2
Directors’ report	-	-	-	-	-	-
Group income statement	-	-	-	-	-	-
Group statement of changes in equity	-	-	-	-	-	-
Accounting policies	11	84	16	75	29	44
Notes to the financial statements	1	8	2	10	32	48
Total number of hits in the financial statements	13	100	19	90	62	94
Other	-	-	2	10	4	6
Total number of hits in annual reports	13	100	21	100	66	100

In total there is an increase in the number of “estimate” hits in the financial statements of M&R-HLD from 2004 to 2006. In 2004 and 2005 the highest percentage of “estimate” hits is found in the accounting policies component of the financial statements. In 2006 the highest percentage of “estimate” hits is found in the notes to the financial statements component.

5.4.2.5 Wilson Bayly Holmes Ovcon Ltd (WBHO)

Table 24: Number of “estimate” hits: WBHO

Component	2004		2005		2006	
	Number	%	Number	%	Number	%
Report of independent auditors	1	16	1	14	-	-
Directors’ report	-	-	-	-	-	-
Group income statement	-	-	-	-	-	-
Group statement of changes in equity	-	-	-	-	-	-
Accounting policies	3	50	4	58	20	84
Notes to the financial statements	1	17	1	14	2	8
Total number of hits in the financial statements	5	83	6	86	22	92
Other	1	17	1	14	2	8
Total number of hits in annual reports	6	100	7	100	24	100

In total there is an increase in the number of “estimate” hits in the financial statements of WBHO from 2004 to 2006. For all three years the highest percentage of “estimate” hits is found in the accounting policies component of the financial statements.

5.4.3 Summary: Number of “estimate” hits in financial statements

The highest percentage of “estimate” hits may be found in the notes to the financial statements for Basread 2006 and M&R-HLD 2006. Not taking “other” estimates into account, for all the other companies over the three years, the highest percentage of “estimate” hits is found in the accounting policies of the five companies. In order to evaluate and understand this, it is important to refer to the definition of accounting policies provided by the IFRSs.

IAS 8 (AC 103) defines accounting policies as the “specific principles, bases, conventions, rules and practices applied by an entity in preparing and presenting

financial statements ((IASB/SAICA 2006 – IAS 8(AC 103):par. 5).” IAS 1 (AC 101) also refers to accounting policies and requires that an entity “shall disclose in the summary of significant accounting policies ((IASB/SAICA 2006 – IAS 1(AC 101): par. 108):

- a) the measurement basis (or bases) used in the preparation of financial statements; and
- b) the other accounting policies used that are relevant to an understanding of the financial statements.”

Accounting policies should be properly disclosed. IAS 1 (AC 101) states that management should disclose the accounting policies that assist the users of financial statements in understanding how transactions are reflected in the reported financial performance and financial position ((IASB/SAICA 2006 – IAS 1(AC 101):par. 110). The disclosure of the use of estimates in the accounting policy notes is important to the users of financial statements because they give an indication of the measurement basis of the specific line items.

Although the accounting policy notes give an indication of the fact that estimates are used in the calculation of certain carrying amounts, it is not always clear whether an estimate has been applied in the actual calculation of the line item. The accounting policy for inventory, for example, may specify that inventory is calculated at the lower of cost or net realisable value, which indicates a possible accounting estimate if the net realisable value is the lower of the two. This accounting policy is however, always given and does not necessarily give an indication that inventory is valued at net realisable value. It seems that the accounting policy notes are, in some cases, a duplication of the principles contained in the standard with no indication of the specific policy adopted by the entity.

Although the accounting policies give an indication of the measurement basis that was used, it is not possible for the users of the financial statements to judge the effect of the use of estimates on the carrying amounts based on the limited information given in the accounting policy note. In the next paragraphs the specific

disclosures, if any that deal with accounting estimates in the financial statements of the five companies in the empirical group are examined.

5.5 DISCLOSURES OF ACCOUNTING ESTIMATES

5.5.1 Introduction and methodology

In order to enable the users of financial statements to evaluate the use of accounting estimates in financial statements, the measurement basis as disclosed in the accounting policy note, although giving an indication of the possible use of an accounting estimate, is not enough information. IAS 1 (AC 101) specifically requires the disclosure of information about key assumptions and estimation uncertainty at the balance sheet date ((IASB/SAICA 2006 – IAS 1(AC 101): par. 116). Refer to paragraph 4.9.1 of this study for a complete discussion of these requirements. A number of other standards also require the disclosure of estimation uncertainty. According to PriceWaterhouseCoopers the following areas could require disclosure in respect of estimation uncertainty (PWC 2006:4085):

- recoverable amount of property, plant and equipment;
- fair values of property, plant and equipment measured at a revalued amount;
- effect of technological obsolescence of inventories;
- estimating fair values of financial assets and financial liabilities;
- assumptions about future events affecting provisions;
- actuarial assumptions in respect of defined benefit pension plans;
- recoverable amount of trade receivables; and
- recoverability of deferred tax.

The requirement to disclose key assumptions and estimation uncertainty should help the users of financial statements to understand the judgements that management had to make about the future and about key sources of estimation uncertainty. Taking into account the number of “estimate” hits in the IFRSs (refer to Appendix A) and the number of “estimate” hits in the financial statements of the five companies

that form part of the empirical group (refer to Appendix E), this could possibly lead to fairly extensive disclosures (Ernst & Young 2004:210). Note that the disclosure requirements are limited to items that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, excluding assets and liabilities that are measured at fair values based on recently observed market prices ((IASB/SAICA 2006 – IAS 1(AC 101): par. 116 and 119).

The financial statements for the financial years ended during 2006 of the five companies in the empirical group have been searched for any disclosure in terms of key sources of estimation uncertainty. In the following paragraphs 5.5.1.1 to 5.5.1.5 the information that deals with key assumptions concerning the future is analysed and discussed.

5.5.1.1 Aveng Ltd (Aveng)

One of the accounting policy notes in the financial statements for the financial year ended 30 June 2006 refers to significant accounting judgements and estimates. This specific note refers the user of the financial statements to the notes on Goodwill, Investments and Employee benefits for details on key assumptions that could have a significant risk of causing material adjustments to the carrying amounts of assets and liabilities in the next financial year.

Impairment testing of indefinite life goodwill was based on value-in-use calculations. A discount rate applied to the cash flow projections of 15% is mentioned. It is also mentioned that revenue, gross margin and costs were based on historical performance, if appropriate.

The note dealing with employee benefits refers to principal assumptions in terms of the defined benefit plan. Percentages with a comparative are indicated for the discount rate, expected return on assets, general inflation and salary inflation. Indications of the assumptions used in valuing various option grants are also given.

Note that although the accounting policy note also refers the user to the note on investments for details on key assumptions, no disclosure on key assumptions or estimation uncertainty could be found in this note.

The accounting policy note focuses the attention of the users of the financial statements on the use of estimates in the financial statements. Limited information is however, given in terms of key assumptions and estimation uncertainty in the specific notes to which the accounting policy note refers the users.

5.5.1.2 Basil Read Holdings Ltd (Basread)

The financial statements of Basil Read for the financial year ended 31 December 2006 acknowledge that the preparation of financial statements in conformity with IFRSs require the use of critical accounting estimates. The areas where assumptions and estimates are significant are disclosed in a single note: "Critical accounting estimates and judgements".

The above-mentioned note discloses a list of the areas where estimates and assumptions may have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

- provision for impairment of contract debtors;
- accounting for construction contracts;
- property, plant and equipment;
- deferred taxation;
- defined benefit plan;
- provision for environmental rehabilitation costs;
- financial instruments; and
- contingencies.

The note on "Critical accounting estimates and judgements" does not disclose any information in terms of key assumptions used to calculate carrying amounts of affected assets and liabilities. This note refers the user of the financial statements

to the notes on Provision for environmental rehabilitation costs and Defined benefit plans for details on key assumptions that could have a significant risk of causing material adjustments to the carrying amounts of assets and liabilities in the next financial year. The inflation rate and the discount rate used to calculate the provision for environmental rehabilitation is disclosed and the discount rate, expected return on assets and future salary and pension increases are disclosed in terms of the defined contribution and defined benefit plan.

Although a list is given of areas that could be affected by accounting estimates, additional information on assumptions made to make these estimates is only supplied for Defined benefit plans and Provision for environmental rehabilitation costs. It should be assumed that only these two areas required difficult and complex judgements. If this assumption is correct, the complete disclosure requirements of IAS 1 are, however, not complied with.

5.5.1.3 Group Five Ltd (Group 5)

The financial statements of GROUP 5 for the financial year ended 30 June 2006 acknowledge that the preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions concerning the future. The only note that discloses information on principal assumptions used for accounting purposes is the note on employee benefits. The discount rate, expected return on assets and future salary and pension increases, together with a comparative, are disclosed.

It should be assumed that only Employee benefits required difficult and complex judgements. If this assumption is correct, the complete disclosure requirements of IAS 1 are however, not complied with.

5.5.1.4 Murray and Roberts Holdings Ltd (M&R-HLD)

The financial statements of Murray & Roberts for the financial year ended 30 June

2006 acknowledge that the preparation of financial statements requires the use of estimates and assumptions. Judgement made by management in the application of IFRSs is disclosed in a single note: "Critical accounting estimates and judgements".

The above-mentioned note lists the following most significant estimates and assumptions made in the preparation of the consolidated financial statements:

- revenue recognition and contract accounting;
- impairment testing of investments in associate companies;
- estimated impairment of goodwill;
- estimation of the fair value of share options;
- estimated value of employee benefit plans
- income taxation; and
- other estimates made.

The note on "Critical accounting estimates and judgements" does not disclose any information in terms of key assumptions used to calculate carrying amounts of affected assets and liabilities. For the specific information on key assumptions this note refers the users of the financial statements to other notes dealing with the specific areas.

A list is given of areas that could be affected by accounting estimates and additional information on assumptions made to make these estimates, is supplied for impairment of goodwill, estimation of the fair value of options and estimated value of employee benefit plans. Key assumptions that are disclosed in terms of the impairment of goodwill are an estimated growth rate and a pre-tax discount rate.

The following inputs into the different valuation methodologies for fair valuing the options are disclosed:

- option price per share;
- expected volatility;
- risk free rate;
- expected expiry date; and

- expected dividend yield.

In terms of the retirement and other benefit plans the following principal actuarial assumptions used for accounting purposes are disclosed:

- discount rate;
- inflation rate;
- expected return on plan/ scheme assets; and
- increase in pension payments/ medical subsidies/ disability benefits.

It should be assumed that only these three areas required difficult and complex judgements. If this assumption is correct, the complete disclosure requirements of IAS 1 are, however, not complied with.

5.5.1.5 Wilson Bayly Holmes Ovcon Ltd (WBHO)

The financial statements of WBHO for the financial year ended 30 June 2006 acknowledge that in preparing the annual financial statements, management is required to make estimates and assumptions. A list of areas which involves significant judgements is disclosed as part of their accounting policies notes:

- allowance for doubtful debts;
- allowance for slow-moving, damaged and obsolete stock;
- property, plant and equipment;
- impairment testing of goodwill;
- provisions;
- contracting profit or loss recognition;
- taxation; and
- deferred tax assets.

As part of the note on goodwill, the discount rates used to calculate the recoverable amount of a cash-generating unit is disclosed. The discount rates are indicated between 11% and 18% and are arrived at after taking into account the losses in subsidiaries, fluctuations in operating conditions and fluctuations in estimated

growth rates. The note on employee benefits discloses the principal actuarial assumptions used at the balance sheet date. The discount rate, inflation rate, salary increase rate, expected rate of return on assets and pension increases, together with comparatives, are disclosed.

The accounting policy note focuses the attention of the users of the financial statements on the use of estimates in the financial statements. Limited information is however, given in terms of key assumptions and estimation uncertainty in these notes.

5.5.2 Summary: Disclosures of accounting estimates in financial statements

Two of the above companies (Aveng and WBHO) refer to "significant judgements" in their accounting policy notes for the financial year ended during 2006. Two other companies (Basread and M&R-HLD) make use of a separate note in their financial statements for the year ended during 2006, to give information on "critical accounting estimates and judgements". One company (Group 5) has no special reference to key sources of estimation uncertainty. Three of the four companies (Basread, M&R-HLD and WBHO) which refer to judgements in their financial statements, give a list of the areas in their financial statements which involves estimates and judgement.

All four companies (Aveng, Basread, M&R-HLD and WBHO) that in some form refer to significant judgement or critical accounting estimates, also refer the user of financial statements to other notes that give more specific information on these sources of estimation uncertainty. The sources of estimation uncertainty given mainly deal with different rates (e.g. inflation, discount and return on assets) used in calculating the carrying amounts of the affected assets and liabilities.

It may be concluded that although the notes on sources of estimation uncertainty, focus the attention of the users of financial statements on the areas affected by

estimates, limited information is disclosed in terms of the assumptions made. The disclosures given do not comply with what is required by IAS 1 (AC 101). It may be argued that the information required by IAS 1 (AC 101) is not given because management does not perceive the estimates to have a significant risk of causing material adjustments to the carrying amounts of the assets and liabilities in the next financial year. It is also possible that the disclosure requirements of IAS 1 (AC 101) are too onerous an obligation on management. Whatever the case may be, the users of financial statements are left in the dark with limited resources to judge the assumptions used by management in making accounting estimates. They are mainly left to trust the "tone at the top" and believe in the audit process!

5.6 CONCLUSION

In the above chapter the financial statements of five companies have been analysed to establish the effect of accounting estimates on their financial statements. Thus, the following may be concluded:

- a percentage of total assets affected by accounting estimates is indicated as more than 60% (excluding cash and cash equivalents from total assets) for all five companies over the three indicated years;
- it is indicated that there is an increase in the number of "estimate" hits from 2004 to 2006 in the financial statements of the five companies in the empirical group; and
- the disclosure provided on key sources of estimation uncertainty is limited.

In the following chapter (Chapter 6) the conclusions and recommendations of this study are summarised.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

Long, long ago in a country called Far Far Away there lived a king. This king, King CEO was very clever and loved money. He asked the people from Far Far Away to give their hard-earned money to him and, in return, he promised to make their money grow. Because people from all over the world talked about the clever ways King CEO used to make money grow, the greedy and the needy people of Far Far Away gave their money to King CEO.

King CEO did not do all the hard work himself, and because it is hard work to make money grow, he employed a number of other clever people to help him. There was, for example, CFO who was a magician with numbers and then there were other people with the same names – they were called CAs. The CAs prepared statements that explained to the greedy and the needy people of Far Far Away what King CEO did with their money and told them by how much their money had grown.

It was not that the greedy and the needy people of Far Far Away did not trust King CEO, it was just that it's their hard-earned money and since they carried on with their day jobs they thought it a good idea to appoint an independent third party (EA) to look after their interests. This third party, EA (external auditor) expressed his opinion on whether the financial statements prepared by the CAs were presented fairly in all respects.

For some time the greedy and the needy people of Far Far Away were very happy as they watched their money grow in the hands of King CEO. One dark and gloomy morning it was all over the media; the greedy and the needy people had lost everything. King CEO was arrested and everybody was asking questions as to how it

was possible that King CEO had lost their hard-earned money without their noticing it. Where was EA why did EA not see it coming? The greedy and the needy people were very sad and angry.

If this were a fairytale, the prince on the white horse would rush in and save the greedy and the needy from losing their money. This is no fairytale; this is the real life story of Enron and other companies that went insolvent. Investors were left out of pocket without seeing any red flags of warning. The question remains, will it happen again?

After much debate and research, some answers have been found to how all of this was possible. The sad fact is that by being creative with accounting the annual financial statements of these companies were changed from non-fiction to fiction. The fact is that public trust in the corporate reporting supply chain has been shaken. Different measures have since been put in place to restore the trust of the public and hopefully to prevent similar future financial disasters.

The study focus on accounting estimates and their effect on financial statements, to try and answer the question if it is possible for companies to go insolvent without any red flags of warning. It is stated in the *Framework* that the use of reasonable estimates are necessary to calculate the cost or value of some amounts that form part of the financial statements and that the use of estimates should not undermine the reliability of the financial statements.

Creative accounting and earnings management have the purpose of deceiving the users of financial statements. If management has the intention of masking an entity's true financial position and performance, accounting estimates could be used to do so. A number of checks and balances are in place to unmask creative accounting practices. This study focuses on the "corporate reporting supply chain" and the responsibilities of each link to prevent and detect creative accounting. In the following paragraphs the main conclusions of this study are summarised.

6.2 CONCLUSIONS

The conclusions of this study are summarised with reference to the following research questions (refer to Chapter 1):

- is there an increase in allowed accounting estimates required by the International Financial Reporting Standards (IFRSs)?
- is there a risk that the use of accounting estimates could lead to earnings management and creative accounting?
- are there any responsibilities placed on the “corporate reporting supply chain” to prevent and detect earnings management and creative accounting? and
- what is the effect of the use of accounting estimates in financial statements?

Chapters 2, 3, 4 and 5 each dealt with one of the four objectives of the study. In the next four paragraphs the conclusions and research results relating to the objectives of the study will be summarised.

6.2.1 Accounting estimates in financial statements

The objective of financial statements is to provide useful information to the users of financial statements. The information will be useful if it is, amongst other things, reliable and relevant. The use of estimates enhances the relevance of information but it should be kept in mind that the information will be relevant only if it is also reliable. The use of accounting estimates adds to the flexibility inherent in the preparation of financial statements. For this reason, possible increases in allowed accounting estimates in the IFRSs were examined.

An electronic key word search was conducted on the Accounting Standards for the years 2003 to 2006 to establish a possible increase in allowed accounting estimates. Table 1 indicates 669 accumulated increases in the number of accounting “estimate” hits between 2003 and 2006. Of the total increases of 669, 178 are between IFRSs:2003 and IFRSs:2004, 462 are between IFRSs:2004 and IFRSs:2005 (after

1 January 2005) and 29 are between IFRSs:2005 and IFRSs:2006.

All standards that showed increases in accounting "estimate" hits between IFRS:2003 and IFRS:2004 were reviewed to search for possible increases in allowed accounting estimates required by the IFRSs. The above comparisons and inspections showed no evidence of an increase in allowed accounting estimates between IFRS:2003 and IFRS:2004. The 178 increases in accounting "estimate" hits are mainly found because of the "Introduction", "Basis of conclusion" and "Illustrative examples" sections that accompany the IASs or IFRSs that did not accompany the old "AC" standards.

The following explains the large increases (462) in accounting "estimate" hits between IFRS:2004 and IFRS:2005:

- newly issued IFRSs which have mainly to do with estimating fair values;
- additional guidance is given on the recognition of a change in accounting estimates and the determining of fair values;
- additional disclosure requirements in terms of key assumptions, estimation uncertainty and risk exposure; and
- a large number of the accounting estimate hits may be found in the introduction and accompanying sections.

It may be concluded that the only real increase in allowed accounting estimates has to do with fair value accounting. In the absence of an active market, the calculation of fair values involves accounting estimates. An electronic key word search was conducted on the Accounting Standards for the years 2006, 2004 and 2003. The accounting standards for 2005 were omitted from the search because standards in issue before 1 January 2005 are almost the same as standards in issue during 2004, and standards in issue after 1 January are almost the same as standards in issue during 2006. Table 8 in Chapter 2 indicates accumulated increases in the number of "fair value" hits for these three years. Of the total number of increases of 1624, 308 are between IFRSs:2003 and IFRSs:2004, 1 316 are between IFRSs:2004 and IFRSs:2006. From the above it is clear that the number of "fair value" hits, in each

of the three years is much more than the accounting “estimates” hits (compare Table 1 with Table 8).

In the above paragraph the number of accounting “estimate” hits and the number of “fair value” hits have been summarised. The number of hits however does not give an indication of how frequently the use of accounting estimates is required by IFRSs.

The electronic keyword search has been used to summarise the allowed accounting estimates within IFRSs:2006. Appendix C contains a lengthy summary of all allowed accounting estimates in IFRS:2006. Appendix C has been used to list allowed accounting estimates for each of the balance sheet components. Refer to Table 10 in Chapter 2 for this information. It may be concluded that almost all of the components on the balance sheet are affected by allowed accounting estimates in IFRSs.

The nature of accounting estimates gives an indication of the possible risk that accounting estimates can be used to change non-fiction into fiction. It is important to bear in mind that synonyms for estimates are “approximation” and “ball-park”. The following analysis gives a better understanding of the nature of accounting estimates:

- conditions of uncertainty – accounting estimates are not exact amounts, because they are based on outcomes that are unknown;
- determination may be simple or complex – some accounting estimates are easier to calculate than others, and are influenced by the available information;
- based on experience – information of previous, similar accounting estimates is necessary;
- special knowledge – because of the complexity of some accounting estimates, particular know-how of a field or subject that necessitates an accounting estimate is necessary; and
- judgement – accounting estimates always involve some guesswork.

From the above explanation of the nature of accounting estimates it is clear that accounting estimates add to the flexibility inherent in financial statements. This flexibility has the purpose of providing relevant information to the users of financial statements on which to base their economic decisions. Information will however be relevant only if it is also reliable. It may be concluded that the large number of allowed accounting estimates found in the IFRSs and the nature of accounting estimates could pose the risk that estimates are used to manipulate financial statements.

6.2.2 Creative accounting

In terms of the nature of accounting estimates, they are based on assumptions and judgement. If different assumptions are used, different estimates will be made. Being creative with the use of different assumptions, it is possible that the “correct” answer could be calculated.

From the literature study performed it is clear that earnings management and creative accounting are not easily defined. Table 10 in Chapter 3 gives a summary of five different definitions of earnings management and creative accounting. Four of the five definitions indicate that earnings management and creative accounting are possible because they are permitted in accounting standards.

It may be concluded that earnings management and creative accounting have the same meaning and involve an act, by making use of flexibility within the IFRSs to alter financial information being reported in order to achieve a predetermined figure. Creative accounting is used as a broader term than earnings management and includes all steps taken to manipulate financial statements with a predetermined outcome in mind.

In an ever-changing global economic environment the IFRSs, for good reason, allow for flexibility. The IFRSs do not however motivate the creative use of this flexibility to a point where financial statements are changed to fiction. Motives and possible

incentives for the use of creative accounting were examined to explain why creative accounting is used. The literature study found that the following are important motives, with their consequential incentives, for the use of creative accounting:

- meeting market expectations – steady or increasing share price;
- income smoothing – avoid negative market response; and
- bonus and share options of managers – managers benefit from increases in the entity's share price.

It may be concluded that the way the market responds to smooth earnings and bonus and share option schemes of managers could be motivators for the practice of creative accounting. Knowledge of these motivators and incentives are important to the users of financial statements because they can take these pressures into account to possibly adjust their economic decisions on financial information provided in financial statements accordingly.

The practice of creative accounting by making use of accounting estimates, becomes a possibility taking the flexibility inherent in the nature of accounting estimates and the motivation, with the consequential incentives for the use thereof, into account. An increased awareness of possible creative accounting practices that involve the use of accounting estimates are important to the users of financial statements because it could possibly lead to the identification thereof and the timely adjustment of decisions. The literature study identified a number of possible creative accounting practices that also involve accounting estimates:

- property, plant and equipment valuation – including depreciation methods, useful lives and residual values;
- impairment of accounts receivable;
- obsolete inventory;
- method of accounting for employee stock options;
- the rate of return used to discount pension plan assets;
- provisions for uncertain future cost; and
- restructuring charges.

Appendix C is a complete list of allowed accounting estimates contained in the

IFRSs.

The identification of accounting estimates that are flexible in nature and the identification of possible creative accounting practices are not proof enough to conclude that accounting estimates are used as part of creative accounting practices.

The IFRSs allow for flexibility in the preparation of financial statements and it is therefore difficult to distinguish between allowed practices and creative accounting practices especially in terms of academic research. In four of the five academic studies that are referred to as part of the literature study, evidence of creative accounting could be found. It may be concluded that creative accounting, by making use of accounting estimates, does exist.

The practice of creative accounting will not pose a significant risk if it is possible for the users of financial statements to identify them in time to make adjustments to undo creative accounting. The problem is that these practices are mostly discovered only in cases of financial disasters when it is too late for the users of financial statements to change their economic decisions. The following factors could influence the detection of creative accounting practices:

- creative accounting hinges on managerial intent;
- users should have a sophisticated knowledge of the IFRSs; and
- financial statements should clearly display information on specific items.

Although creative accounting is deemed by some as a legitimate practice, it is to most, an undesirable practice. There seems to be a grey area where the practice of creative accounting is not harmful and may even be seen as a necessary “white lie” to protect share prices. There is however, a thin line between the “white lie” and the lie that could also be fraud because it deceives in a harmful manner.

Comparing the definitions of creative accounting and fraud with each other, it is clear that both creative accounting and financial fraud hinge on the perpetrator’s intent. The outcome of creative accounting and financial fraud, being to deceive the

users of financial statements, are also comparable. An important difference between creative accounting and fraud is that creative accounting includes accounting choices allowed by the IFRSs, whereas financial fraud could also include accounting choices that violate the IFRSs.

ISA 240R mentions the use of accounting estimates as an example of how fraudulent financial reporting may be accomplished. This standard also acknowledges that certain pressures and incentives may lead to financial statement fraud. These incentives comprise following categories (the “3Cs”):

- conditions – pressure to engage in financial statement fraud;
- corporate structure – a perceived opportunity to commit fraud; and
- choice – an ability to rationalise the fraudulent action.

It may be concluded that although difficult to prove, accounting estimates have been used creatively in accounting. If management has the intention to deceive, they can do so and hide behind the approximation and judgement nature of accounting estimates.

6.2.3 Prevention and detection of creative accounting

Trust in the financial reporting process is very important for the proper functioning of markets. The users of financial statements rely on financial statements on which to base their economic decisions. Recent financial disasters have shaken the trust of the public in the financial reporting process. It is important to note that it is not so much the business failure which is part of capital markets, as the presentation of false and deceitful information that has caught the attention of the public. The responsibilities of all the role players involved in the financial reporting process, also referred to as the “corporate reporting supply chain” is of importance.

The “corporate reporting supply chain” consists of the following links (refer to Figure 2):

- company executives and boards of directors;

- internal auditors;
- independent auditors (external auditors);
- third party analysts and investors;
- standard setters;
- market regulators; and
- enabling technologies.

The responsibilities of each of the above links in the “corporate reporting supply chain” to prevent and detect creative accounting and financial statement fraud are summarised below.

Company executives and the board of directors are ultimately responsible for the preparation of the financial statements and for maximising shareholder value. The ethical values and integrity of the executives and directors are important deterrents for creative accounting and financial fraud in the preparation of financial statements. It should be kept in mind that intention is the only difference between accounting estimates made properly and accounting estimates made creatively. Information crime does not leave a corpse and that is what makes it so difficult to detect. A system of internal controls and good corporate governance are important checks and balances for the prevention and detection of creative accounting and financial fraud. Nevertheless, it is still possible for executives and managers to override internal controls and manipulate financial statements. It may be concluded that since intention plays such an important role in creative accounting, the “tone at the top” is of utmost importance in the prevention of creative accounting and financial fraud.

Corporate governance can be seen as the system by which entities are controlled with the purpose of achieving sustainable shareholder value. The board of directors is ultimately responsible for corporate governance. In terms of corporate governance, the following can play a role in the prevention and detection of creative accounting and financial fraud:

- the composition of the board – the number of executive directors compared with non-executive directors;

- financial skills – a director with a financial background is likely to be more aware of possible creative accounting practices;
- the number of board meetings held and attended – the more active, the better they can monitor;
- remuneration packages – packages should be structured so that executives' and directors' interests are in line;
- audit committee – monitoring of the system of internal control and the entity's financial performance; and
- code of ethics – setting the "tone at the top".

In terms of the RSA King Report, entities should have an internal audit function. In the prevention of creative accounting and financial fraud, internal auditors should be aware of "business red flags" that are often present in such events. They need to be alert to these indicators of creative accounting and financial fraud. For the internal audit function to be effective the position thereof within the chain of command of the entity is important. The effectiveness of the internal audit function may be impaired if senior management has too big an involvement. The internal audit function also needs unobstructed access to the audit committee. Internal auditors are in a position to detect and prevent creative accounting and financial fraud. Creative accounting may be prevented by the internal audit function if they participate in corporate governance matters and educate employees on the possible dangers of creative accounting. By performing certain procedures as for example, the revision of significant estimates and assumptions, creative accounting may be detected by the internal audit function.

Independent auditors are a very important link in the "corporate reporting supply chain". Users rely on the independent auditors to give an independent opinion on the reliability of the financial statements. The responsibility of the independent auditors in detecting creative accounting and financial fraud are however limited. For the users of financial statements it is important to understand that the independent auditors provide reasonable assurance that the financial statements are free from material misstatements. Because of the inherent limitations of an audit, it

is possible that some material misstatements, also relating to accounting estimates, will not be detected. It may be concluded that accounting estimates and measurement of fair value which are based on judgements and approximations carry inherent risk in terms of the detection of material misstatements. An approach of professional skepticism is required from the independent auditor and should result in an effective audit that in turn, should satisfy the needs of the users of financial statements.

In Chapter 4 the fixation of analysts and investors on the earnings number is compared with a doctor making a diagnosis of a patient by referring only to cholesterol. This fixation motivates creative accounting. If analysts and investors want to play a role in the prevention and detection of creative accounting and financial fraud they will have to:

- carry out detailed analyses, focusing on the bigger picture;
- be on the lookout for red flags; and
- monitor the accounting policies of entities.

It may be concluded that if analysts want to be part of the checks and balances of creative accounting and financial fraud, they have a duty to vigilantly analyse and scrutinise the financial statements of entities. If they do pick up any creative accounting practices the media can also play an important role in generating publicity concerning these matters.

Standard setters are responsible to give structure to the accounting language and to prescribe disclosure requirements. IAS 1 (AC 101) *Presentation of Financial Statements* requires, amongst others, the disclosure of key sources of estimation uncertainty. This information could be of some help to the users of financial statements to make their own assessment of the reliability of accounting estimates. If a valuation technique instead of active market prices has been used to calculate the fair value of financial assets and financial liabilities, IFRS 7 (AC 144) *Financial Instruments: Disclosures* requires the disclosure of the methods and assumptions used to do so. This information could enable users to evaluate the risk and

significance of financial instruments. The above disclosure requirements could be important in the prevention and detection of creative accounting.

Both stock exchanges and legislative bodies play a role as market regulators. From a South African perspective both the Companies Act and the Johannesburg Stock Exchange perform these important regulating functions. For the first time in South Africa financial statements by law need to be prepared to comply with the IFRSs. This fact could possibly prevent creative accounting. All companies listed on the JSE Securities Exchange need to comply with the listing requirements and the listing requirements require full compliance with IFRSs. The listing requirements are aimed at protecting public interest.

Technology can also play a role in the detection of creative accounting. With the use of XBRL more information can be provided to the users of financial statements on a continuous basis.

It may be concluded that each of the links in the “corporate reporting supply chain” has a very important role to fulfil in the prevention and detection of creative accounting and financial fraud with reference to accounting estimates. The intent of the perpetrator however, plays such an important role in creative accounting and financial fraud that no guarantees can be given that creative accounting and financial fraud will either be prevented or detected by the “corporate reporting supply chain”.

6.2.4 Empirical study of financial statements

An analysis of financial statements with the objective of examining the effect of accounting estimates in these financial statements was performed. The following financial statements of companies within the Construction and Material sector of the JSE were analysed:

- Aveng Ltd;
- Basil Read Holdings Ltd;

- Group Five Ltd;
- Murray and Roberts Holdings Ltd; and
- Wilson Bayly Holmes-Ovcon Ltd.

The analyses performed included the following:

- percentage of total assets affected by accounting estimates;
- reference to "estimates" in the financial statements; and
- disclosure of accounting estimates.

A percentage, per line item, of assets affected by accounting estimates were calculated by dividing the carrying amount of assets affected by accounting estimates, with the total carrying amount of assets. The applicable notes per line item were inspected to confirm the use of accounting estimates. The percentage of assets affected by accounting estimates per line item was used to calculate a percentage of total assets affected by accounting estimates/. Refer to Appendix D for the detailed tables.

For the periods analysed (2004, 2005 and 2006), with the exception of one company (Basread 2006), the percentage of total assets affected by accounting estimates is more than 50%. If cash and cash equivalents are excluded from total assets, the percentage of total assets affected by accounting estimates is more than 60% for all five companies over the three years. The average percentages of total assets affected by accounting estimates for all five companies, including cash and cash equivalents are 60% for 2004, 60% for 2005 and 59% for 2006. If cash and cash equivalents are excluded from the calculation of total assets affected by accounting estimates for all five companies the average percentages are 72% for 2004, 77% for 2005 and 76% for 2006. It may be concluded that the percentage of total assets affected by accounting estimates is quite high.

An electronic (physical, if electronic not possible) search was conducted on the financial statements of the five companies over three years (2004, 2005 and 2006). The word "estimate" was searched and the number of occurrences counted. All five

companies showed an increase in the number of "estimate" hits over the three years. The average number of "estimate" hits in the financial statements of for all five companies is 12 for 2004, 17 for 2005 and 36 for 2006. This increase correlates with increased number of "estimate" hits found in the IFRSs. Refer to Appendix E for a summary of the number of "estimate" hits per component of the financial statements of the five companies.

The accounting policies notes of three of the five companies show the highest percentage of "estimate" hits. For the other two companies the highest percentage is found in the notes to the financial statements.

IAS 1 (AC 101) *Presentation of Financial Statements* requires the disclosure of information about key assumptions and estimation uncertainty at the balance sheet date. The financial statements of the five companies in the empirical group for the financial years ended during 2006 were searched to confirm any disclosure in terms of key sources of estimation uncertainty.

Three of the five companies prepared a list of the areas in the financial statements which involves estimates and judgement. Limited information is provided on the assumptions used in calculating the carrying amounts of assets and liabilities which are affected by accounting estimates.

It may be concluded that the notes on sources of estimation uncertainty increase the awareness that estimates are used in the calculations of the carrying amounts of assets and liabilities. In none of the five companies in the empirical group is the information required by IAS 1 (AC 101) given. The reasons for this may be that:

- the estimates are not perceived to have significant risk of causing material adjustments to the carrying amounts of the assets and liabilities in the next financial year; or
- the requirements are too onerous.

The users of financial statements are left with limited means to judge the reliability of accounting estimates.

Because of the large number of accounting estimates required by the IFRSs, estimates could have a material effect on financial statements. Unfortunately, because of a lack of information given in financial statements, it is not possible to quantify this effect.

6.3 RECOMMENDATIONS

The following recommendations are suggested:

- because the “tone at the top” is so important, educational programmes dealing with ethics are very important, not only to chartered accountants but to other students in financial studies as well;
- higher penalties for the culprits of financial information crime;
- the structure and chain of command in a company should allow internal auditors to be more independent and the reporting of instances of creative accounting and fraud should take place via the audit committee;
- independent auditors need to ensure that financial statements comply with IFRSs especially in terms of the disclosure requirements of IAS 1 (AC 101);
- an effective and easily accessible Financial Reporting Investigation Panel;
- analysts and users of financial statements need to be made aware of the large number of accounting estimates and the effect thereof on financial statements. They also need to focus their attention on more than just the earnings number; and
- choices in terms of recognition and measurement should be standardised in the IFRSs.

6.4 PROPOSALS FOR FUTURE RESEARCH

The following topics may be researched in future:

- the need for additional and comprehensive disclosure in terms of accounting estimates;
- the need for different recognition and measurement criteria set in IFRSs, as well as the relevance and reliability of each;
- more effective ways and further guidance to make reliable accounting estimates;
- ethical values amongst board members in the South African context; and
- audit procedures and the effectiveness thereof in dealing with accounting estimates.

6.5 CONCLUSION

The IFRSs allows a large number of accounting estimates in the preparation of financial statements. The use of accounting estimates in the preparation of financial statements is increasing, mainly because of the requirements in the IFRSs for fair value accounting. The large number of allowed accounting estimates in the IFRSs and the nature of accounting estimates, being subject to judgement and conditions of uncertainty, can pose a risk that accounting estimates are used to manipulate financial statements. The intention of management plays a large role in whether accounting estimates are used creatively or in a fraudulent way. It is, however, difficult to distinguish the negative effect of accounting estimates, making financial statements less reliable, from the positive effect of accounting estimates, increasing the relevance of financial statements.

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Number of accounting “estimate” hits in each of the standards over four years:

STANDARD NUMBER:	TITLE	NUMBER OF HITS				
		2006	2005: After 1 Jan 2005	2005: Prior to 1 Jan 2005	2004	2003
Accounting Framework	Framework for the Preparation and Presentation of Financial Statements	3	3	3	3	3
Standards of Generally Accepted Accounting Practice:						
IFRS 1 (AC138)	First-time Adoption of International Financial Reporting Standards	41	37	33	33	-
IFRS 2 (AC139)	Share-based Payment	129	129	-	-	-
IFRS 3 (AC140)	Business Combinations	32	32	32	32	18
IFRS 4 (AC141)	Insurance Contracts	46	42	-	-	-
IFRS 5 (AC142)	Non-current Assets Held for Sale and Discontinued Operations	6	6	-	-	-
IFRS 6 (AC143)	Exploration for and Evaluation of Mineral Resources	9	9	-	-	-
IFRS 7 (AC144)	Financial Instruments: Disclosures	13	15	-	-	-
IAS 1 (AC101)	Presentation of Financial Statements	33	33	0	0	0
IAS 2 (AC108)	Inventories	6	6	4	4	4
IAS 7 (AC118)	Cash Flow Statements	3	3	1	1	1

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IAS 8 (AC103)	Accounting Policies, Changes in Accounting Estimates and Errors	38	38	16	16	16
IAS 10 (AC107)	Events After the Balance Sheet Date	2	2	2	2	2
IAS 11 (AC109)	Construction Contracts	24	31	23	23	16
IAS 12 (AC102)	Income Taxes	13	11	2	2	2
IAS 14 (AC115)	Segment Reporting	3	3	1	1	1
IAS 16 (AC123)	Property, Plant and Equipment	18	18	11	11	11
IAS 17 (AC105)	Leases	5	5	3	3	3
IAS 18 (AC111)	Revenue	11	11	10	10	10
IAS 19 (AC116)	Employee Benefits	55	50	28	28	28
IAS 20 (AC134)	Accounting for Government Grants and Disclosure of Government Assistance	3	3	1	1	1
IAS 21 (AC112)	The Effects of Changes in Foreign Exchange Rates	2	2	0	0	0
IAS 23 (AC114)	Borrowing Costs	2	2	0	0	0
IAS 24 (AC126)	Related Party Disclosures	1	1	0	0	0
IAS 26 (AC136)	Accounting and Reporting by Retirement Benefit Plans	6	6	5	5	3
IAS 27 (AC132)	Consolidated and Separate Financial Statements	1	1	0	0	0
IAS 28 (AC110)	Investments in Associates	4	4	-	3	3
IAS 29 (AC124)	Financial Reporting in Hyperinflationary Economies	4	4	3	3	3
IAS 31 (AC119)	Interests in Joint Ventures	2	2	1	1	1

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IAS 32 (AC125)	Financial Instruments: Disclosure and Presentation	2	11	4	4	4
IAS 33 (AC104)	Earnings Per Share	1	1	0	0	
IAS 34 (AC127)	Interim Financial Reporting	34	34	35	35	32
IAS 36 (AC128)	Impairment of Assets	204	200	200	200	95
IAS 37 (AC130)	Provisions, Contingent Liabilities and Contingent Assets	41	41	40	40	36
IAS 38 (AC129)	Intangible Assets	42	42	42	42	17
IAS 39 (AC133)	Financial Instruments: Recognition and Measurement	106	103	15	15	15
IAS 40 (AC135)	Investment Property	17	17	9	9	9
IAS 41 (AC137)	Agriculture	54	54	32	32	29
Interpretations of Standards of Generally Accepted Accounting Practice:						
IFRIC 1 (AC434)	Changes in Existing Decommissioning, Restoration and Similar Liabilities	35	39	39	39	59
IFRIC 2 (AC435)	Members' Shares in Co- operative Entities and Similar Instruments	0	0	-	-	-
IFRIC 4 (AC436)	Determining whether an Arrangement contains a Lease	5	5	-	-	-
IFRIC 5 (AC437)	Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds	3	3	-	-	-
IFRIC 6 (AC438)	Liabilities arising from Participating in a Specific Market—Waste Electrical and Electronic Equipment	1	1	-	-	-

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IFRIC 7 (AC439)	Applying the Restatement Approach under IAS 29 Financial Reporting in Hyperinflationary Economies	2	-	-	-	-
IFRIC 8 (AC440)	Scope of IFRS 2	5	-	-	-	-
IFRIC 9 (AC441)	Reassessment of Embedded Derivatives	1	-	-	-	-
SIC 7 (AC407)	Introduction of the Euro	1	0	0	0	0
SIC 10 (AC410)	Government Assistance – No Specific Relation to Operating Activities	1	0	0	0	0
SIC 12 (AC412)	Consolidation – Special Purpose Entities	1	1	1	1	0
SIC 13 (AC413)	Jointly Controlled Entities – Non-Monetary Contributions by Venturers	1	0	0	0	0
SIC 15 (AC415)	Operating Leases – Incentives	1	0	0	0	0
SIC 21 (AC421)	Income Taxes – Recovery of Revalued Non-Depreciable Assets	1	0	0	0	0
SIC 25 (AC425)	Income Taxes – Changes in the Tax Status of an Enterprise or its Shareholders	1	0	0	0	0
SIC 27 (AC427)	Evaluating the Substance of Transactions Involving the Legal form of a Lease	1	0	0	0	0
SIC 29 (AC429)	Disclosure – Service Concession Arrangements	0	0	0	0	0
SIC 31 (AC431)	Revenue – Barter Transactions Involving Advertising Services	2	1	1	1	1
SIC 32 (AC432)	Intangible Assets – Web Site Costs	3	3	3	3	2

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South African Standards and Interpretations of Standards of Generally Accepted Accounting Practice:						
AC 500	Preface to South African Statements and Interpretations of Statements of Generally Accepted Accounting Practice	0	0	0	0	-
AC 501	Accounting for "Secondary Tax on Companies (STC)"	0	0	0	0	-
AC 502	Substantively Enacted Tax Rates and Tax Laws	1	-	-	-	-
AC 503	Accounting For Black Economic Empowerment (Bee) Transactions	12	-	-	-	-
Total number of hits		1094	1065	603	603	425

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Number of "fair value" hits in each of the standards over three years:

STANDARD NUMBER:	TITLE	NUMBER OF HITS		
		2006	2004	2003
Accounting Framework	Framework for the Preparation and Presentation of Financial Statements	2	2	2
Standards of Generally Accepted Accounting Practice:				
IFRS 1 (AC138)	First-time Adoption of International Financial Reporting Standards	73	55	-
IFRS 2 (AC139)	Share-based Payment	209	-	-
IFRS 3 (AC140)	Business Combinations	138	137	16
IFRS 4 (AC141)	Insurance Contracts	100	-	-
IFRS 5 (AC142)	Non-current Assets Held for Sale and Discontinued Operations	58	-	-
IFRS 6 (AC143)	Exploration for and Evaluation of Mineral Resources	3	-	-
IFRS 7 (AC144)	Financial Instruments: Disclosures	98	-	-
IAS 1 (AC101)	Presentation of Financial Statements	9	3	3
IAS 2 (AC108)	Inventories	11	0	0
IAS 7 (AC118)	Cash Flow Statements	1	1	2
IAS 8 (AC103)	Accounting Policies, Changes in Accounting Estimates and Errors	3	0	0
IAS 10 (AC107)	Events After the Balance Sheet Date	0	0	0
IAS 11 (AC109)	Construction Contracts	1	1	1
IAS 12 (AC102)	Income Taxes	23	18	20
IAS 14 (AC115)	Segment Reporting	0	0	0

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IAS 16 (AC123)	Property, Plant and Equipment	19	10	10
IAS 17 (AC105)	Leases	27	17	17
IAS 18 (AC111)	Revenue	14	10	10
IAS 19 (AC116)	Employee Benefits	67	47	46
IAS 20 (AC134)	Accounting for Government Grants and Disclosure of Government Assistance	4	4	4
IAS 21 (AC112)	The Effects of Changes in Foreign Exchange Rates	12	6	6
IAS 23 (AC114)	Borrowing Costs	0	0	0
IAS 24 (AC126)	Related Party Disclosures	0	0	0
IAS 26 (AC136)	Accounting and Reporting by Retirement Benefit Plans	2	2	1
IAS 27 (AC132)	Consolidated and Separate Financial Statements	5	0	0
IAS 28 (AC110)	Investments in Associates	15	0	0
IAS 29 (AC124)	Financial Reporting in Hyperinflationary Economies	0	0	0
IAS 31 (AC119)	Interests in Joint Ventures	11	1	1
IAS 32 (AC125)	Financial Instruments: Disclosure and Presentation	63	51	51
IAS 33 (AC104)	Earnings Per Share	11	11	11
IAS 34 (AC127)	Interim Financial Reporting	1	1	1
IAS 36 (AC128)	Impairment of Assets	95	95	6
IAS 37 (AC130)	Provisions, Contingent Liabilities and Contingent Assets	2	3	2
IAS 38 (AC129)	Intangible Assets	58	58	20
IAS 39 (AC133)	Financial Instruments: Recognition and Measurement	603	120	120
IAS 40 (AC135)	Investment Property	159	60	60
IAS 41 (AC137)	Agriculture	117	49	48

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Interpretations of Standards of Generally Accepted Accounting Practice:				
IFRIC 1 (AC434)	Changes in Existing Decommissioning, Restoration and Similar Liabilities	4	4	-
IFRIC 2 (AC435)	Members' Shares in Co-operative Entities and Similar Instruments	5	-	-
IFRIC 4 (AC436)	Determining whether an Arrangement contains a Lease	3	-	-
IFRIC 5 (AC437)	Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds	6	-	-
IFRIC 6 (AC438)	Liabilities arising from Participating in a Specific Market—Waste Electrical and Electronic Equipment	0	-	-
IFRIC 7 (AC439)	Applying the Restatement Approach under IAS 29 Financial Reporting in Hyperinflationary Economies	2	-	-
IFRIC 8 (AC440)	Scope of IFRS 2	14	-	-
IFRIC 9 (AC441)	Reassessment of Embedded Derivatives	3	-	-
SIC 7 (AC407)	Introduction of the Euro		0	0
SIC 10 (AC410)	Government Assistance – No Specific Relation to Operating Activities	0	0	0
SIC 12 (AC412)	Consolidation – Special Purpose Entities	0	0	0
SIC 13 (AC413)	Jointly Controlled Entities – Non-Monetary Contributions by Venturers	1	1	2
SIC 15 (AC415)	Operating Leases – Incentives	0	0	0
SIC 21 (AC421)	Income Taxes – Recovery of Revalued Non-Depreciable Assets	0	0	0
SIC 25 (AC425)	Income Taxes – Changes in the Tax Status of an Enterprise or its Shareholders	0	0	0

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SIC 27 (AC427)	Evaluating the Substance of Transactions Involving the Legal form of a Lease	1	1	1
SIC 29 (AC429)	Disclosure – Service Concession Arrangements	0	0	0
SIC 31 (AC431)	Revenue – Barter Transactions Involving Advertising Services	8	8	8
SIC 32 (AC432)	Intangible Assets – Web Site Costs	1	1	1
South African Standards and Interpretations of Standards of Generally Accepted Accounting Practice:				
AC 500	Preface to South African Statements and Interpretations of Statements of Generally Accepted Accounting Practice	0	-	-
AC 501	Accounting for "Secondary Tax on Companies (STC)"	0	-	-
AC 502	Substantively Enacted Tax Rates and Tax Laws	0	-	-
AC 503	Accounting For Black Economic Empowerment (Bee) Transactions	31	-	-
Total number of hits		2 093	777	469

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Allowed accounting estimates in IFRSs: 2006:

Standard and paragraph number	Allowed accounting estimates	Guidance on making the accounting estimate
IFRS 1 (AC138)	First-time Adoption of International Financial Reporting Standards	
IFRS 1.33	<p>Estimates: An entity may need to make estimates under IFRSs at the date of transition to IFRSs that were not required at that date under previous GAAP.</p>	<p>To achieve consistency with IAS 10, those estimates under IFRSs shall reflect conditions that existed at the date of transition to IFRSs. In particular, estimates at the date of transition to IFRSs of market prices, interest rates or foreign exchange rates shall reflect market conditions at that date.</p>
IFRS 2 (AC139)	Share-based Payment	
IFRS 2.10	<p>Equity-settled share-based payment transactions: For equity-settled share-based payment transactions, the entity shall measure the goods or services received, and the corresponding increase in equity, directly, at the fair value of the goods or services received, unless that fair value cannot be estimated reliably.</p>	<p>If the entity cannot estimate reliably the fair value of the goods or services received, the entity shall measure their value, and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted.</p>

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IFRS 2.15	<p>Transactions in which services are received:</p> <p>If the equity instruments granted do not vest until the counterparty completes a specified period of service the entity shall estimate the length of the expected vesting period at grant date, based on the most likely outcome of the performance condition.</p>	<p>If the performance condition is a market condition, the estimate of the length of the expected vesting period shall be consistent with the assumptions used in estimating the fair value of the options granted, and shall not be subsequently revised. If the performance condition is not a market condition, the entity shall revise its estimate of the length of the vesting period, if necessary, if subsequent information indicates that the length of the vesting period differs from previous estimates.</p>
IFRS 2.17	<p>Determining the fair value of equity instruments granted:</p> <p>If market prices are not available, the entity shall estimate the fair value of the equity instruments granted.</p>	<p>Use a valuation technique to estimate what the price of those equity instruments would have been on the measurement date in an arm's length transaction between knowledgeable, willing parties. The valuation technique shall be consistent with generally accepted valuation methodologies for pricing financial instruments, and shall incorporate all factors and assumptions that knowledgeable, willing market participants would consider in setting the price</p>

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IFRS 2.19 and .20	Treatment of vesting conditions: Instead, vesting conditions shall be taken into account by adjusting the number of equity instruments included in the measurement of the transaction amount so that, ultimately, the amount recognised for goods or services received as consideration for the equity instruments granted shall be based on the number of equity instruments that eventually vest.	The entity shall recognise an amount for the goods or services received during the vesting period based on the best available estimate of the number of equity instruments expected to vest and shall revise that estimate, if necessary, if subsequent information indicates that the number of equity instruments expected to vest differs from previous estimates. On vesting date, the entity shall revise the estimate to equal the number of equity instruments that ultimately vested
IFRS 2.30	Cash-settled share-based payment transactions: For cash-settled share-based payment transactions, the entity shall measure the goods or services acquired and the liability incurred at the fair value of the liability. Until the liability is settled, the entity shall remeasure the fair value of the liability at each reporting date and at the date of settlement, with any changes in fair value recognised in profit or loss for the period.	
IFRS 3 (AC140)	BUSINESS COMBINATIONS	
IFRS 3.24	The acquirer shall measure the cost of a business combination as the aggregate of: (a) the fair values, at the date of exchange, of assets given, liabilities incurred or assumed, and equity instruments issued by the acquirer, in exchange for control of the acquiree; plus (b) any costs directly attributable to the business combination.	

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IFRS 3.27	<p>Cost of a business combination: The published price at the date of exchange of a quoted equity instrument provides the best evidence of the instrument's fair value and shall be used, except in rare circumstances. If the published price at the date of exchange is an unreliable indicator or if a published price does not exist for equity instruments issued by the acquirer, the fair value of those instruments could be estimated.</p>	<p>Could be estimated by reference to their proportional interest in the fair value of the acquirer or by reference to the proportional interest in the fair value of the acquiree obtained, whichever is the more clearly evident.</p>
IFRS 3.33	<p>Adjustments to the cost of a business combination contingent on future events: It is usually possible to estimate the amount of any such adjustment at the time of initially accounting for the combination without impairing the reliability of the information, even though some uncertainty exists.</p>	
IFRS 3.51	<p>Goodwill: Initially measure goodwill at its cost, being the excess of the cost of the business combination over the acquirer's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities.</p>	
IFRS 3.54	<p>After initial recognition, the acquirer shall measure goodwill acquired in a business combination at cost less any accumulated impairment losses.</p>	
IFRS 3.63	<p>Adjustments after the initial accounting is complete: Adjustments to the initial accounting for a business combination after that accounting is complete shall not be recognised for the effect of changes in estimates.</p>	<p>In accordance with IAS 8, the effect of a change in estimates shall be recognised in the current and future periods.</p>

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IFRS 4 (AC141)	INSURANCE CONTRACTS	
IFRS 4.15	Liability adequacy test: An insurer shall assess at each reporting date whether its recognised insurance liabilities are adequate, using current estimates of future cash flows under its insurance contracts.	
IFRS 5 (AC142)	Non-current Assets Held for Sale and Discontinued Operations	
IFRS 5.15	Measurement of a non-current asset (or disposal group): An entity shall measure a non-current asset (or disposal group) classified as held for sale at the lower of its carrying amount and fair value less costs to sell.	
IFRS 6 (AC143)	EXPLORATION FOR AND EVALUATION OF MINERAL RESOURCES	
IFRS 6.6	Recognition of exploration and evaluation assets: When developing its accounting policies, an entity recognising exploration and evaluation assets shall apply paragraph 10 of IAS 8.	
IAS 2 (AC108)	Inventories	
IAS 2.6	Net realisable value: The estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.	

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IAS 2.30 and.31	<p>Net realisable value: Writing inventories down below cost to net realisable value is consistent with the view that assets should not be carried in excess of amounts expected to be realised from their sale or use.</p>	<p>Estimates of net realisable value are based on the most reliable evidence available at the time the estimates are made, of the amount the inventories are expected to realise. These estimates take into consideration fluctuations of price or cost directly relating to events occurring after the end of the period to the extent that such events confirm conditions existing at the end of the period. Estimates of net realisable value also take into consideration the purpose for which the inventory is held.</p>
IAS 7 (AC118)	Cash Flow Statements	
IAS 7.47	<p>Components of cash and cash equivalents: The effect of any change in the policy for determining components of cash and cash equivalents, for example, a change in the classification of financial instruments previously considered to be part of an entity's investment portfolio, is reported in accordance with IAS 8.</p>	
IAS 8 (AC 103)	Accounting Policies, Changes in Accounting Estimates and Errors	
IAS 8.3	<p>Scope: This Standard shall be applied in selecting and applying accounting policies, and accounting for changes in accounting policies, changes in accounting estimates and corrections of prior period errors.</p>	

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IAS 10 (AC107)	Events After the Balance Sheet Date	
IAS 10.21	<p>Non-adjusting events after the balance sheet date: If non-adjusting events after the balance sheet date are material, non-disclosure could influence the economic decisions of users taken on the basis of the financial statements.</p>	<p>Disclose estimate of financial effect or statement that such an estimate cannot be made in note.</p>
IAS 11 (AC109)	Construction Contracts	
IAS 11.12	<p>Contract revenue: Contract revenue is measured at the fair value of the consideration received or receivable. The measurement of contract revenue is affected by a variety of uncertainties that depend on the outcome of future events. The estimates often need to be revised as events occur and uncertainties are resolved.</p>	
IAS 11.17	<p>Contract costs: Costs that relate directly to a specific contract include, amongst others, the estimated costs of rectification and guarantee work, including expected warranty costs.</p>	

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<p>IAS 11.22, .28 and .29</p> <p>IAS 11.29</p> <p>IAS 11.30</p>	<p>Recognition of contract revenue and expenses:</p> <p>When the outcome of a construction contract can be estimated reliably, contract revenue and contract costs associated with the construction contract shall be recognised as revenue and expenses respectively by reference to the stage of completion of the contract activity at the balance sheet date.</p> <p>The stage of completion of a contract may be determined in a variety of ways. Depending on the nature of the contract, the methods may include, amongst others, the proportion that contract costs incurred for work performed to date bear to the estimated total contract costs.</p>	<p>The outcome of a construction contract can only be estimated reliably when it is probable that the economic benefits associated with the contract will flow to the entity.</p> <p>It is also usually necessary for the entity to have an effective internal financial budgeting and reporting system. The entity reviews and, when necessary, revises the estimates of contract revenue and contract costs as the contract progresses. The need for such revisions does not necessarily indicate that the outcome of the contract cannot be estimated reliably.</p>
<p>IAS 11.38</p>	<p>Changes in estimates:</p> <p>The percentage of completion method is applied on a cumulative basis in each accounting period to the current estimates of contract revenue and contract costs. The changed estimates are used in the determination of the amount of revenue and expenses recognised in the income statement in the period in which the change is made and in subsequent periods.</p>	<p>The effect of a change in the estimate of contract revenue or contract costs, or the effect of a change in the estimate of the outcome of a contract, is accounted for as a change in accounting estimate (see IAS 8)</p>

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IAS 12 (AC102)	Income Taxes	
IAS 12.62	Items credited or charged directly to equity: International Financial Reporting Standards require or permit certain items to be credited or charged directly to equity: An example of such item is an adjustment to the opening balance of retained earnings resulting from either a change in accounting policy that is applied retrospectively or the correction of an error.	In accordance with IAS 8.
IAS 12.68B	Current and deferred tax arising from share-based payment transactions:	If the amount the taxation authorities will permit as a deduction in future periods is not known at the end of the period, it shall be estimated, based on information available at the end of the period.
IAS 14 (AC115)	Segment Reporting	
	IAS 8 provides a basis for selecting and applying accounting policies in the absence of explicit guidance.	
IAS 16 (AC123)	PROPERTY, PLANT AND EQUIPMENT	
IAS 16.14	Subsequent costs: A condition of continuing to operate an item of property, plant and equipment (for example, an aircraft) may be performing regular major inspections for faults regardless of whether parts of the item are replaced. When each major inspection is performed, its cost is recognised in the carrying amount of the item of property, plant and equipment.	The estimated cost of a future similar inspection may be used as an indication of what the cost of the existing inspection component was when the item was acquired or constructed.

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IAS 16.16 and 76	Elements of cost at recognition: The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.	In accordance with IAS 8 an entity discloses the nature and effect of a change in an accounting estimate that has an effect in the current period or is expected to have an effect in subsequent periods.
IAS 16.31 and .33	Revaluation model: An item of property, plant and equipment whose fair value can be measured reliably shall be carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses.	If there is no market-based evidence of fair value because of the specialised nature of the item of property, plant and equipment and the item is rarely sold, an entity may need to estimate fair value using an income or a depreciated replacement cost approach.
IAS 16.51	Depreciable amount and depreciation period: The residual value and the useful life of an asset shall be reviewed at least at each financial year-end.	If expectations differ from previous estimates, the change(s) shall be accounted for as a change in an accounting estimate in accordance with IAS 8
IAS 16.57	Depreciable amount and depreciation period: The useful life of an asset is defined in terms of the asset's expected utility to the entity.	The estimation of the useful life of the asset is a matter of judgement based on the experience of the entity with similar assets.
IAS 16.61 and .75	Depreciation method: The depreciation method applied to an asset shall be reviewed at least at each financial year-end and, if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the method shall be changed to reflect the changed pattern.	Selection of the depreciation method of assets is matters of judgment. Such a change shall be accounted for as a change in an accounting estimate in accordance with IAS 8.

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IAS 17 (AC105)	Leases	
IAS 17.5	Useful life:	The estimated remaining period, from the commencement of the lease term, without limitation by the lease term, over which the economic benefits embodied in the asset are expected to be consumed by the entity.
IAS 17.41	Subsequent measurement: Estimated unguaranteed residual values used in computing the lessor's gross investment in a lease are reviewed regularly	If there has been a reduction in the estimated unguaranteed residual value, the income allocation over the lease term is revised and any reduction in respect of amounts accrued is recognised immediately.
IAS 18 (AC111)	REVENUE	
IAS 18.17	Sale of goods: If an entity retains only an insignificant risk of ownership, the transaction is a sale and revenue is recognised. An example of an entity retaining only an insignificant risk of ownership may be a retail sale when a refund is offered if the customer is not satisfied.	Revenue in such cases is recognised at the time of sale provided the seller can reliably estimate future returns and recognises a liability for returns based on previous experience and other relevant factors.

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IAS 18.20	<p>Rendering of services: When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction shall be recognised.</p>	<p>The outcome of a transaction can be estimated reliably when all the following conditions are satisfied:</p> <ul style="list-style-type: none">(a) the amount of revenue can be measured reliably;(b) it is probable that the economic benefits associated with the transaction will flow to the entity;(c) the stage of completion of the transaction at the balance sheet date can be measured reliably; and(d) the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.
IAS 18. 24	<p>Rendering of services: Refer to the stage of completion of the transaction at the balance sheet date.</p>	<p>The stage of completion of a transaction may be determined by the proportion that costs incurred to date bear to the estimated total costs of the transaction. Only costs that reflect services performed to date are included in costs incurred to date. Only costs that reflect services performed or to be performed are included in the estimated total costs of the transaction.</p>

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IAS 19 (AC111)	EMPLOYEE BENEFITS	
IAS 19.14 and .15	<p>Short-term compensated absences: An entity shall measure the expected cost of accumulating compensated absences as the additional amount that the entity expects to pay as a result of the unused entitlement that has accumulated at the balance sheet date. In many cases, an entity may not need to make detailed computations to estimate that there is no material obligation for unused compensated absences.</p>	
IAS19.17 and .20	<p>Profit-sharing and bonus plans: An entity shall recognise the expected cost of profit-sharing and bonus payments when, and only when:</p> <ul style="list-style-type: none"> (a) the entity has a present legal or constructive obligation to make such payments as a result of past events; and (b) a reliable estimate of the obligation can be made. 	<p>An entity can make a reliable estimate of its legal or constructive obligation under a profit-sharing or bonus plan when, and only when:</p> <ul style="list-style-type: none"> (a) the formal terms of the plan contain a formula for determining the amount of the benefit; (b) the entity determines the amounts to be paid before the financial statements are authorised for issue; or (c) past practice gives clear evidence of the amount of the entity's constructive obligation.

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IAS 19.50	<p>Recognition and measurement - Defined benefit plans:</p> <p>Accounting by an entity for defined benefit plans involves the following, amongst others the following step: The use of actuarial techniques to make a reliable estimate of the amount of benefit that employees have earned in return for their service in the current and prior periods.</p>	<p>This requires an entity to determine how much benefit is attributable to the current and prior periods and to make estimates (actuarial assumptions) about demographic variables (such as employee turnover and mortality) and financial variables (such as future increases in salaries and medical costs) that will influence the cost of the benefit.</p>
IAS 19.80	<p>Actuarial assumptions - Discount rate:</p>	<p>The discount rate reflects the estimated timing of benefit payments. In practice, an entity often achieves this by applying a single weighted average discount rate that reflects the estimated timing and amount of benefit payments and the currency in which the benefits are to be paid.</p>
<p>IAS 19.83 and .84</p> <p>IAS 19.88 and .89</p>	<p>Actuarial assumptions: salaries, benefits and medical costs:</p> <p>Post-employment benefit obligations shall be measured on a basis that reflects:</p> <p>(a) estimated future salary increases;</p> <p>(b) the benefits set out in the terms of the plan at the balance sheet date; and</p> <p>(c) estimated future changes in the level of any state benefits that affect the benefits payable under a defined benefit plan.</p> <p>Assumptions about medical costs shall take account of estimated future changes in the cost of medical services, resulting from both inflation and specific changes in medical costs.</p>	<p>Estimates of future salary increases take account of inflation, seniority, promotion and other relevant factors, such as supply and demand in the employment market.</p> <p>Measurement of post-employment medical benefits requires assumptions about the level and frequency of future claims and the cost of meeting those claims. An entity estimates future medical costs on the basis of historical data</p>

		about the entity's own experience, supplemented where necessary by historical data from other entities, insurance companies, medical providers or other sources. Estimates of future medical costs consider the effect of technological advances, changes in health care utilisation or delivery patterns and changes in the health status of plan participants.
IAS 19.102	Fair value of plan assets: When no market price is available, the fair value of plan assets is estimated.	Discount expected future cash flows using a discount rate that reflects both the risk associated with the plan assets and the maturity or expected disposal date of those assets (or, if they have no maturity, the expected period until the settlement of the related obligation).
IAS 20 (AC134)	Accounting for Government Grants and Disclosure of Government Assistance	
IAS 20.32	Repayment of government grants: A government grant that becomes repayable shall be accounted for as a revision to an accounting estimate.	Refer to IAS 8.
IAS 21 (AC112)	THE EFFECTS OF CHANGES IN FOREIGN EXCHANGE RATES	
	IAS 8 provides a basis for selecting and applying accounting policies in the absence of explicit guidance.	
IAS 23 (AC114)	BORROWING COSTS	
	IAS 8 provides a basis for selecting and applying accounting policies in the absence of explicit guidance.	

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IAS 24 (AC126)	RELATED PARTY DISCLOSURES	
	IAS 8 provides a basis for selecting and applying accounting policies in the absence of explicit guidance.	
IAS 26 (AC136)	ACCOUNTING AND REPORTING BY RETIREMENT BENEFIT PLANS	
IAS 26.8	Definitions: Retirement benefit plans are arrangements whereby an entity provides benefits for employees on or after termination of service (either in the form of an annual income or as a lump sum) when such benefits, or the contributions towards them, can be determined or estimated in advance of retirement from the provisions of a document or from the entity's practices.	
IAS 26.13	Defined contribution plans: An actuary's advice is not normally required although such advice is sometimes used to estimate future benefits that may be achievable based on present contributions and varying levels of future contributions and investment earnings.	
IAS 27 (AC132)	Consolidated and Separate Financial Statements	
	IAS 8 provides a basis for selecting and applying accounting policies in the absence of explicit guidance.	

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IAS 28 (AC110)	INVESTMENTS IN ASSOCIATES	
IAS 28.33	Impairment losses: Determining the value in use of the investment:	An entity estimates: (a) its share of the present value of the estimated future cash flows expected to be generated by the associate, including the cash flows from the operations of the associate and the proceeds on the ultimate disposal of the investment; or (b) the present value of the estimated future cash flows expected to arise from dividends to be received from the investment and from its ultimate disposal. Under appropriate assumptions, both methods give the same result.
IAS 29 (AC124)	FINANCIAL REPORTING IN HYPERINFLATIONARY ECONOMIES	
IAS 29.17	Balance sheet: If a general price index is not available for the restatement of property, plant and equipment, it may be necessary to use an estimate.	Movements in the exchange rate between the functional currency and a relatively stable foreign currency.
IAS 29.27	Gain or loss on net monetary position:	Apply the change in a general price index to the weighted average for the period of the difference between monetary assets and monetary liabilities.

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IAS 31 (AC119)	INTERESTS IN JOINT VENTURES	
IAS 31.50	Transactions between a venturer and a joint venture: To assess whether a transaction between a venturer and a joint venture provides evidence of impairment of an asset, the venturer determines the recoverable amount of the asset in accordance with IAS 36.	In determining value in use, the venturer estimates future cash flows from the asset on the basis of continuing use of the asset and its ultimate disposal by the joint venture.
IAS 32 (AC125)	FINANCIAL INSTRUMENTS: DISCLOSURE AND PRESENTATION	
	IAS 8 provides a basis for selecting and applying accounting policies in the absence of explicit guidance.	
IAS 33 (AC104)	EARNINGS PER SHARE	
	IAS 8 provides a basis for selecting and applying accounting policies in the absence of explicit guidance.	
IAS 34 (AC127)	INTERIM FINANCIAL REPORTING	
IAS 34.16(d)	Selected explanatory notes: The nature and amount of changes in estimates of amounts reported in prior interim periods of the current financial year or changes in estimates of amounts reported in prior financial years, if those changes have a material effect in the current interim period.	
IAS 34.23	Materiality: In making assessments of materiality, it shall be recognised that interim measurements may rely on estimates to a greater extent than measurements of annual financial data.	

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IAS 36 (AC128)	IMPAIRMENT OF ASSETS	
IAS 36.9	<p>Identifying an asset that may be impaired:</p> <p>An entity shall assess at each reporting date whether there is any indication that an asset may be impaired. If any such indication exists, the entity shall estimate the recoverable amount of the asset.</p>	
IAS 36.26	<p>Fair value less costs to sell:</p> <p>If there is no binding sale agreement but an asset is traded in an active market, fair value less costs to sell is the asset's market price less the costs of disposal. The appropriate market price is usually the current bid price.</p>	<p>When current bid prices are unavailable, the price of the most recent transaction may provide a basis from which to estimate fair value less costs to sell, provided that there has not been a significant change in economic circumstances between the transaction date and the date as at which the estimate is made.</p>
IAS 36.31	<p>Estimating the value in use of an asset.</p>	<p>Estimating the value in use of an asset involves the following steps:</p> <p>(a) Estimating the future cash inflows and outflows to be derived from continuing use of the asset and from its ultimate disposal; and</p> <p>(b) Applying the appropriate discount rate to those future cash flows.</p>
IAS 36.33	<p>Basis for estimates of future cash flows:</p>	<p>In measuring value in use an entity shall:</p> <p>(a) Base cash flow projections on reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions that will exist over the remaining useful life of the asset.</p> <p>(b) Base cash flow projections on the most recent financial budgets/forecasts approved by management, but shall exclude</p>

		<p>any estimated future cash inflows or outflows expected to arise from future restructurings or from improving or enhancing the asset's performance.</p> <p>(c) Estimate cash flow projections beyond the period covered by the most recent budgets/forecasts by extrapolating the projections based on the budgets/forecasts using a steady or declining growth rate for subsequent years, unless an increasing rate can be justified. This growth rate shall not exceed the long-term average growth rate for the products, industries, or country or countries in which the entity operates, or for the market in which the asset is used, unless a higher rate can be justified.</p>
IAS 36.40	Estimates of future cash flows: Estimates of future cash flows and the discount rate reflect consistent assumptions about price increases attributable to general inflation.	<p>If the discount rate includes the effect of price increases attributable to general inflation, future cash flows are estimated in nominal terms. If the discount rate excludes the effect of price increases attributable to general inflation, future cash flows are estimated in real terms</p> <p>The estimate of future cash outflows include an estimate of any further cash outflow that is expected to be incurred before the asset is ready for use or sale.</p> <p>Estimates of future cash flows shall not include estimated future cash inflows or outflows that are expected to arise from:</p> <p>(a) A future restructuring to which an entity is not yet committed; or</p> <p>(b) Improving or enhancing the</p>
IAS 36.42	The carrying amount of an asset does not yet include all the cash outflows to be incurred before it is ready for use or sale.	
IAS 36.44	Future cash flows shall be estimated for the asset in its current condition.	

IAS 36.47	Entity becomes committed to a restructuring.	asset's performance. Once the entity is committed to the restructuring: (a) its estimates of future cash inflows and cash outflows for the purpose of determining value in use reflect the cost savings and other benefits from the restructuring (based on the most recent financial budgets/forecasts approved by management); and (b) its estimates of future cash outflows for the restructuring are included in a restructuring provision in accordance with IAS 37.
IAS 36.48	Cash outflows that enhance the asset's performance.	Until an entity incurs cash outflows that improve or enhance the asset's performance, estimates of future cash flows do not include the estimated future cash inflows that are expected to arise from the increase in economic benefits associated with the cash outflow.
IAS 36.49	Future cash outflows to maintain the level of economic benefits.	Estimates of future cash flows include future cash outflows necessary to maintain the level of economic benefits expected to arise from the asset in its current condition.
IAS 36.50	Financing activities and income tax.	Estimates of future cash flows shall not include: (a) cash inflows or outflows from financing activities; or (b) income tax receipts or payments.
IAS 36.52	Disposal of an asset.	The estimate of net cash flows to be received (or paid) for the disposal of an asset at the end of its useful life shall be the amount that an entity expects to obtain from the disposal of the asset in an arm's length transaction between knowledgeable, willing parties,

IAS 36.54	Foreign currency future cash flows	<p>after deducting the estimated costs of disposal.</p> <p>Future cash flows are estimated in the currency in which they will be generated and then discounted using a discount rate appropriate for that currency.</p>
IAS 36.55 IAS 36.56 IAS 36.57	Discount rate:	<p>The discount rate (rates) shall be a pre-tax rate (rates) that reflect(s) current market assessments of:</p> <p>(a) the time value of money; and</p> <p>(b) the risks specific to the asset for which the future cash flow estimates have not been adjusted.</p> <p>This rate is estimated from the rate implicit in current market transactions for similar assets or from the weighted average cost of capital of a listed entity that has a single asset (or a portfolio of assets) similar in terms of service potential and risks to the asset under review.</p> <p>When an asset-specific rate is not directly available from the market, an entity uses surrogates to estimate the discount rate.</p>

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<p>IAS 36.66 and 67</p> <p>IAS 36.70</p>	<p>Identifying the cash-generating unit to which an asset belongs: If there is an indication that an asset may be impaired, and it is not possible to estimate the recoverable amount of the individual asset, an entity shall determine the recoverable amount of the cash-generating unit to which the asset belongs.</p> <p>If an active market exists for the output produced by an asset or group of assets, that asset or group of assets shall be identified as a cash-generating unit, even if some or all of the output is used internally.</p>	<p>The recoverable amount of an individual asset cannot be determined if:</p> <p>(a) the asset's value in use cannot be estimated to be close to its fair value less costs to sell (for example, when the future cash flows from continuing use of the asset cannot be estimated to be negligible); and</p> <p>(b) the asset does not generate cash inflows that are largely independent of those from other assets.</p> <p>If internal transfer pricing affects the cash inflows generated by any asset or cash-generating unit, an entity shall use management's best estimate of future price(s) that could be achieved in arm's length transactions in estimating the future cash inflows and cash outflows.</p>
<p>IAS 36.110</p>	<p>Reversing an impairment loss: An entity shall assess at each reporting date whether there is any indication that an impairment loss recognised in prior periods for an asset may no longer exist or may have decreased. If any such indication exists, the entity shall estimate the recoverable amount of that asset.</p>	

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IAS 37 (AC130)	PROVISIONS, CONTINGENT LIABILITIES AND CONTINGENT ASSETS	
IAS 37.11	Provisions and other liabilities: Accruals, being liabilities to pay for goods or services that have been received or supplied but have not been paid, invoiced or formally agreed with the supplier, including amounts due to employees (for example, amounts relating to accrued vacation pay).	Although it is sometimes necessary to estimate the amount or timing of accruals, the uncertainty is generally much less than for provisions.
IAS 37.13(a) and .14	Relationship between provisions and contingent liabilities: Provisions are recognised as liabilities.	Assuming that a reliable estimate can be made of the amount that will be required to settle the obligation.
IAS 37.13(b)	Contingent liabilities: Contingent liabilities are not recognised as liabilities.	Because either it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation, or a sufficiently reliable estimate of the amount of the obligation cannot be made.
IAS 37.25	Reliable estimate of the obligation: The use of estimates is an essential part of the preparation of financial statements and does not undermine their reliability.	Except in extremely rare cases, an entity will be able to determine a range of possible outcomes and can therefore make an estimate of the obligation that is sufficiently reliable to use in recognising a provision.

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<p>IAS 37.36 and .37</p> <p>IAS 37.38</p> <p>IAS 37.39</p> <p>IAS 37.40</p>	<p>Measurement - best estimate: The amount recognised as a provision shall be the best estimate of the expenditure required to settle the present obligation at the balance sheet date.</p>	<p>The estimate of the amount that an entity would rationally pay to settle or transfer the obligation gives the best estimate of the expenditure required to settle the present obligation at the balance sheet date.</p> <p>The estimates of outcome and financial effect are determined by the judgment of the management of the entity, supplemented by experience of similar transactions and, in some cases, reports from independent experts.</p> <p>Where the provision being measured involves a large population of items, the obligation is estimated by weighting all possible outcomes by their associated probabilities. The name for this statistical method of estimation is 'expected value'.</p> <p>Where a single obligation is being measured, the individual most likely outcome may be the best estimate of the liability.</p>
<p>IAS 37.42 and .43</p>	<p>Risks and uncertainties: The risks and uncertainties that inevitably surround many events and circumstances shall be taken into account in reaching the best estimate of a provision.</p>	<p>Risk describes variability of outcome. A risk adjustment may increase the amount at which a liability is measured. Caution is needed in making judgements under conditions of uncertainty, so that income or assets are not overstated and expenses or liabilities are not understated. However, uncertainty does not justify the creation of excessive provisions or a deliberate overstatement of liabilities.</p>

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IAS 38 (AC129)	INTANGIBLE ASSETS	
IAS 38.8	<p>Definition: The residual value of an intangible asset.</p>	<p>The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.</p>
IAS 38.22	<p>Recognition and measurement: An entity shall assess the probability of expected future economic benefits using reasonable and supportable assumptions that represent management's best estimate of the set of economic conditions that will exist over the useful life of the asset.</p>	
<p>IAS 38.35 and 39</p> <p>IAS 38.41</p>	<p>Measuring the fair value of an intangible asset acquired in a business combination: When, for the estimates used to measure an intangible asset's fair value, there is a range of possible outcomes with different probabilities, that uncertainty enters into the measurement of the asset's fair value, rather than demonstrates an inability to measure fair value reliably.</p>	<p>Quoted market prices in an active market provide the most reliable estimate of the fair value of an intangible asset. Entities that are regularly involved in the purchase and sale of unique intangible assets may have developed techniques for estimating their fair values indirectly. These techniques include: discounting estimated future net cash flows from the asset.</p>
<p>IAS 38.90</p> <p>IAS 38.93</p>	<p>Useful life: Many factors are considered in determining the useful life of an intangible asset.</p>	<p>Estimates of useful lives of similar assets that are used in a similar way. Uncertainty justifies estimating the useful life of an intangible asset on a prudent basis, but it does not justify choosing a life that is unrealistically short.</p>
IAS 38.102	<p>The residual value of an intangible asset:</p>	<p>The residual value is reviewed at least at each financial year-end. A change in the asset's residual value is accounted for as a change in an accounting estimate in accordance with</p>

		IAS 8.
IAS 38.104	Review of amortisation period and amortisation method: The amortisation period and the amortisation method for an intangible asset with a finite useful life shall be reviewed at least at each financial year-end.	Such changes shall be accounted for as changes in accounting estimates in accordance with IAS 8.
IAS 38.109	Intangible assets with indefinite useful lives:	The change in the useful life assessment from indefinite to finite shall be accounted for as a change in an accounting estimate in accordance with IAS 8.
IAS 39 (AC133)	FINANCIAL INSTRUMENTS: RECOGNITION AND MEASUREMENT	
IAS 39.9	Definition: The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability.	When calculating the effective interest rate, an entity shall estimate cash flows considering all contractual terms of the financial instrument, but shall not consider future credit losses.
IAS 39.28	Transfers that qualify for derecognition: When an entity allocates the previous carrying amount of a larger financial asset between the part that continues to be recognised and the part that is derecognised, the fair value of the part that continues to be recognised needs to be determined.	When the entity has a history of selling parts similar to the part that continues to be recognised or other market transactions exist for such parts, recent prices of actual transactions provide the best estimate of its fair value. When there are no price quotes or recent market transactions to support the fair value of the part that continues to be recognised, the best estimate of the fair value is the difference between the fair value of the larger financial asset as a whole and the consideration received from the transferee for the part that is derecognised.

		carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate.
IAS39.66	Financial assets carried at cost:	If there is objective evidence that an impairment loss has been incurred on an unquoted equity instrument that is not carried at fair value because its fair value cannot be reliably measured, or on a derivative asset that is linked to and must be settled by delivery of such an unquoted equity instrument, the amount of the impairment loss is measured as the difference between the carrying amount of the financial asset and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset.
IAS 40 (AC135)	Investment Property	
IAS 40.46	Fair value model: Measurement at fair value in the absence of current prices in an active market.	Use the most reliable estimate of fair value within a range of reasonable fair value estimates. For example: discounted cash flow projections based on reliable estimates of future cash flows.

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IAS 41 (AC137)	AGRICULTURE	
IAS 41.12	<p>Recognition and measurement: A biological asset shall be measured on initial recognition and at each balance sheet date at its fair value less estimated point-of-sale costs, except for the case described in paragraph 30 where the fair value cannot be measured reliably.</p>	
IAS 41.13	<p>Agricultural produce harvested from an entity's biological assets shall be measured at its fair value less estimated point-of-sale costs at the point of harvest.</p>	
IAS 41.18 and .19	<p>If an active market does not exist, an entity uses one or more of the following, when available, in determining fair value:</p> <ul style="list-style-type: none"> (a) the most recent market transaction price; (b) market prices for similar assets with adjustment to reflect differences; and (c) sector benchmarks. 	<p>In some cases, the information sources listed in paragraph 18 may suggest different conclusions as to the fair value of a biological asset or agricultural produce. An entity considers the reasons for those differences, in order to arrive at the most reliable estimate of fair value within a relatively narrow range of reasonable estimates.</p>
IAS 41.20 and 21	<p>In some circumstances, market-determined prices or values may not be available for a biological asset in its present condition. In these circumstances, an entity uses the present value of expected net cash flows from the asset discounted at a current market-determined pre-tax rate in determining fair value.</p>	
IAS 41.23	<p>The objective of a calculation of the present value of expected net cash flows is to determine the fair value of a biological asset in its present location and condition. An entity considers this in determining an appropriate discount rate to be used and in estimating expected net cash flows. In determining a discount rate, an entity uses assumptions consistent with those used in estimating the expected cash flows, to avoid the effect of some assumptions being double-counted or ignored.</p>	

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IAS 41.26	Gains and losses: A gain or loss arising on initial recognition of a biological asset at fair value less estimated point-of-sale costs and from a change in fair value less estimated point-of-sale costs of a biological asset shall be included in profit or loss for the period in which it arises.	
IAS 41.28	A gain or loss arising on initial recognition of agricultural produce at fair value less estimated point-of-sale costs shall be included in profit or loss for the period in which it arises.	

APPENDIX D.1**Percentage of assets affected by accounting estimates****AVENG**

30 June	2004	2004	2004	2005	2005	2005	2006	2006	2006
ASSETS	A	B	A/B	A	B	A/B	A	B	A/B
	Rm	Rm	%	Rm	Rm	%	Rm	Rm	%
Property, plant and equipment	1,851	1,827	99	1,858	1,781	96	2,083	2,083	100
Goodwill and other intangibles	719	719	100	762	762	100	760	760	100
Investments in associates and joint ventures	511	511	100	637	637	100	425	425	100
Other investments	44	44	100	54	54	100	46	46	100
Deferred tax	66	-	-	143	-	-	276	-	-
Inventories	1,018	-	-	1,345	-	-	1,374	-	-
Trade and other receivables	2,496	1,311	53	3,293	1,942	59	3,464	1,868	54
Cash and cash equivalents	746	-	-	857	-	-	1,585	-	-
	<u>7,450</u>	<u>4,412</u>	<u>59</u>	<u>8,950</u>	<u>5,176</u>	<u>58</u>	<u>10,014</u>	<u>5,182</u>	<u>52</u>

A = Total assets according to consolidated balance sheet

B = Assets affected by accounting estimate

APPENDIX D.2**Percentage of assets affected by accounting estimates****BASREAD**

31 December	2004	2004	2004	2005	2005	2005	2006	2006	2006
ASSETS	A	B	A/B	A	B	A/B	A	B	A/B
	R'000	R'000	%	R'000	R'000	%	R'000	R'000	%
Property, plant and equipment	90,783	85,876	95	82,293	75,793	92	176,438	174,574	99
Investment property	1,000	1,000	100	1,500	1,500	100	-	-	-
Intangible assets	-	-	-	-	-	-	10,444	10,444	100
Investments	180	178	99	170	168	99	-	-	-
Investment in associates	5,459	5,459	100	428	428	100	66	66	100
Deferred taxation	19,038	-	-	22,542	-	-	27,409	-	-
Available-for-sale financial assets	-	-	-	-	-	-	650	-	-
Inventories	486	-	-	1,141	-	-	6,659	-	-
Contract debtors and retentions	38,005	38,005	100	64,762	64,762	100	120,069	120,069	100
Receivables and pre-payments	2,584	-	-	2,454	-	-	17,623	-	-
Taxation	182	-	-	290	-	-	1,072	-	-
Cash and cash equivalents	43,889	-	-	91,249	-	-	270,518	-	-
	<u>201,606</u>	<u>130,518</u>	<u>65</u>	<u>266,829</u>	<u>142,651</u>	<u>53</u>	<u>630,948</u>	<u>305,153</u>	<u>48</u>

A = Total assets according to consolidated balance sheet

B = Assets affected by accounting estimate

APPENDIX D.3**Percentage of assets affected by accounting estimates****GROUP 5**

30 June	2004	2004	2004	2005	2005	2005	2006	2006	2006
ASSETS	A	B	A/B	A	B	A/B	A	B	A/B
	R'000	R'000	%	R'000	R'000	%	R'000	R'000	%
Property, plant and equipment	576,436	557,834	97	616,940	586,320	95	513,138	507,501	99
Investment property	-	-	-	-	-	-	9,656	-	-
Investment in associates	11,046	-	-	13,746	-	-	1,669	-	-
Investment in service concessions	101,443	71,258	70	119,079	88,894	75	59,701	59,701	100
Deferred taxation	38,809	-	-	46,605	-	-	208,470	-	-
Inventories	234,021	-	-	235,350	-	-	296,268	296,268	100
Contracts in progress	148,866	148,866	100	404,291	404,291	100	844,279	844,279	100
Trade and other receivables	982,523	809,605	82	1,095,404	964,095	88	1,919,555	1,653,741	86
Cash and cash equivalents	275,902	-	-	335,346	-	-	712,999	-	-
Non-current assets classified as held for sale	-	-	-	-	-	-	338,667	-	-
	2,369,046	1,587,563	67	2,866,761	2,043,600	71	4,904,402	3,361,490	69

A = Total assets according to consolidated balance sheet

B = Assets affected by accounting estimate

APPENDIX D.4**Percentage of assets affected by accounting estimates****M & R**

30 June	2004	2004	2004	2005	2005	2005	2006	2006	2006
ASSETS	A	B	A/B	A	B	A/B	A	B	A/B
	R'000	R'000	%	R'000	R'000	%	R'000	R'000	%
Property, plant and equipment	1,099	1,099	100	1,194	1,194	100	1,714	1,714	100
Investment property	257	257	100	259	259	100	277	277	100
Goodwill	5	5	100	48	48	100	147	147	100
Other intangible assets	-	-	-	-	-	-	68	68	100
Investment in associates companies	653	-	-	505	505	100	877	-	-
Other investments	346	110	32	360	136	38	435	194	45
Deferred taxation	33	-	-	38	-	-	52	-	-
Operating lease receivables	-	-	-	96	-	-	18	-	-
Inventories	490	-	-	554	-	-	636	-	-
Amounts due from contract customers	928	928	100	1,125	1,125	100	2,878	2,878	100
Trade and other receivables	1,145	812	71	1,046	781	75	1,454	1,120	77
Deferred operating lease	-	-	-	8	-	-	-	-	-
Derivate financial instruments	-	-	-	34	-	-	9	-	-
Bank balances and cash	1,104	-	-	1,933	-	-	1,808	-	-
Assets classified as held-for-sale	-	-	-	-	-	-	11	-	-
	6,057	3,210	53	7,200	4,048	56	10,385	6,398	62

A = Total assets according to consolidated balance sheet

B = Assets affected by accounting estimate

APPENDIX D.5**Percentage of assets affected by accounting estimates****WBHO**

30 June	2004	2004	2004	2005	2005	2005	2006	2006	2006
ASSETS	A	B	A/B	A	B	A/B	A	B	A/B
	R'000	R'000	%	R'000	R'000	%	R'000	R'000	%
Property, plant and equipment	266,553	256,771	96	387,332	378,040	98	513,177	503,894	98
Goodwill	937	937	100	38,874	38,874	100	76,220	76,220	100
Investments in associates	90,519	-	-	22,739	-	-	25,865	14,253	55
Investments in securities	-	-	-	1,113	-	-	19,295	18,785	97
Long term receivables	73,555	3,730	5	63,046	850	1	37,410	12,832	34
Inventories	26,395	-	-	91,079	-	-	201,897	24,149	12
Contracts in progress	531,735	531,735	100	939,658	939,658	100	1,252,820	1,252,820	100
Debtors	141,225	-	-	192,644	-	-	225,473	-	-
Cash and cash equivalents	337,428	-	-	554,694	-	-	638,322	-	-
Non-current assets classified as held for sale	-	-	-	-	-	-	17,810	-	-
	1,468,347	793,173	54	2,291,179	1,357,422	59	3,008,289	1,902,953	63

A = Total assets according to consolidated balance sheet

B = Assets affected by accounting estimate

APPENDIX E.1

AVENG	2006	2005	2004
Total number of "estimate" hits found	39	26	14
Component	Context	Context	Context
Report of independent auditors	An audit includes assessing significant estimates made by management.	An audit includes assessing significant estimates made by management.	An audit includes assessing significant estimates made by management.
Directors' report	-	-	Financial statements are supported by prudent and reasonable estimates.
Group income statement	-	-	-
Group statement of changes in equity	-	-	-
Accounting policies	<ul style="list-style-type: none"> • Contracting profit or loss recognition; • Share based payments; • Financial instruments; • Impairment; • Inventories; • Leased assets; • Property, plant and equipment; • Provisions; • Revenue recognition; • Trademarks and; • Significant accounting estimates and judgment. 	<ul style="list-style-type: none"> • Contracting profit or loss recognition; • Financial instruments; • Impairment; • Inventories; • Leased assets; • Property, plant and equipment; • Provisions; • Revenue recognition and; • Trademarks. 	<ul style="list-style-type: none"> • Financial instruments; • Goodwill; • Impairment; • Property, plant and equipment; • Provisions and; • Trademarks
Notes to the financial statements	<ul style="list-style-type: none"> • Trade and other 	<ul style="list-style-type: none"> • Trade and other 	<ul style="list-style-type: none"> • Trade and other

	<p>receivables: Estimated losses relating to contracts in progress;</p> <ul style="list-style-type: none"> • Amortisation of goodwill and other intangible assets: Amortised over their estimated useful life; • Taxation: Estimated tax losses and estimated unused credits in respect of STC; • Employee benefits: The fair value of the options is estimated at the date of the grant. 	<p>receivables: Estimated losses relating to contracts in progress;</p> <ul style="list-style-type: none"> • Amortisation of goodwill and other intangible assets: Amortised over their estimated useful life and; • Taxation: Estimated tax losses and estimated unused credits in respect of STC. 	<p>receivables: Estimated losses relating to contracts in progress;</p> <ul style="list-style-type: none"> • Amortisation of goodwill: Amortised over their estimated useful life and; • Taxation: Estimated tax losses and estimated unused credits in respect of STC.
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APPENDIX E.2

BASREAD	2006	2005	2004
Total number of instances found	42	26	15
Component	Context	Context	Context
Directors' responsibility statement	Financial statements have been prepared in accordance with IFRSs and include amounts based upon judgments and estimates made by management	Financial statements have been prepared in accordance with IFRSs and include amounts based upon judgments and estimates made by management.	Financial statements have been prepared in accordance with GAAP and include amounts based upon judgments and estimates made by management.
Report of independent auditors	The directors' responsibility includes making accounting estimates that are reasonable under the circumstances. An audit also includes evaluating the reasonableness of accounting estimates made by the directors.	An audit includes assessing significant estimates made by management.	An audit includes assessing significant estimates made by management.
Directors' report	-	-	-
Group income statement	-	-	-
Group statement of changes in equity	-	-	-
Accounting policies	<ul style="list-style-type: none"> Basis of preparation: The preparation of financial statements in conformity with IFRSs requires 	<ul style="list-style-type: none"> Basis of preparation: The preparation of financial statements in conformity with IFRSs requires 	<ul style="list-style-type: none"> Basis of preparation: The preparation of financial statements in accordance with GAAP

	<p>the use of certain critical accounting estimates. The areas involving a higher degree of judgment and complexity, or areas where assumptions and estimates are significant are disclosed in note 33;</p> <ul style="list-style-type: none"> • Other investments: Fair values for unlisted equity securities are estimated using applicable price/earnings ratios; • Long-term construction contracts and contract revenue recognition: When the outcome of a construction contract can be estimated reliably and it is probable that the contract will be profitable, contract revenue is recognised over the period of the contract. 	<p>the use of certain critical accounting estimates. The areas involving a higher degree of judgment and complexity, or areas where assumptions and estimates are significant are disclosed in note 37;</p> <ul style="list-style-type: none"> • Other investments: Fair values for unlisted equity securities are estimated using applicable price/earnings ratios; • Long-term construction contracts and contract revenue recognition: When the outcome of a construction contract can be estimated reliably and it is probable that the contract will be profitable, contract revenue is recognised over the period of the contract; 	<p>requires the use of estimates. Although these estimates are based on management's best knowledge of current events and actions, actual results may actually differ from those estimates;</p> <ul style="list-style-type: none"> • Other investments: Fair values for unlisted equity securities are estimated using applicable price/earnings ratios; • Long-term construction contracts and contract revenue recognition: Profits are recognized on the percentage of completion basis once the outcome of the contract can be reliably estimated; • Provisions:
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	<p>The stage of completion is measured by reference to the contract costs incurred up to the balance sheet date as a percentage of total estimated costs;</p> <ul style="list-style-type: none"> • Provisions: Provisions are recognized if a reliable estimate of the amount of the obligation can be made; • Employee benefits: The present value of the defined benefit obligation is determined by the estimated future cash outflows. Accrual is made for the estimated liability for annual leave and long-service leave; • Environmental obligations: Full provision is made on the net present value of the estimated cost 	<ul style="list-style-type: none"> • Provisions: Provisions are recognized if a reliable estimate of the amount of the obligation can be made; • Employee benefits: The present value of the defined benefit obligation is determined by the estimated future cash outflows. Accrual is made for the estimated liability for annual leave and long-service leave. 	<p>Provisions are recognized if a reliable estimate of the amount of the obligation can be made. Provisions is made for the estimated liability for annual leave and long-service leave;</p> <ul style="list-style-type: none"> • Employee benefits: The present value of the defined benefit obligation is determined by the estimated future cash outflows.
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	of restoring the environmental disturbance.		
Notes to the financial statements	<ul style="list-style-type: none"> • Estimated tax losses: Total estimated tax losses are available for utilisation against future taxable income; • Deferred tax: Deferred tax has not been provided on estimated assessed losses of subsidiaries; • Financial Instruments: The fair value of swaps entered into is estimated at a loss; • Financial risk management: The estimated values of the group's financial instruments are given; and • Critical accounting estimates and judgments (note 33). 	<ul style="list-style-type: none"> • Taxation: Total estimated tax losses are available for utilisation against future taxable income; • Deferred tax: Deferred tax has not been provided on estimated assessed losses of subsidiaries; • Financial Instruments: The fair value of swaps entered into is estimated at a loss; • Critical accounting judgments and estimates (note 37). 	<ul style="list-style-type: none"> ○ Taxation: Total estimated tax losses are available for utilisation against future taxable income; and ○ Deferred tax: Deferred tax has not been provided on estimated assessed losses of subsidiaries.

APPENDIX E.3

GROUP 5	2006	2005	2004
Total instances found	37	30	19
Component	Context	Context	Context
Statement of responsibility by the board of directors	The financial statements include amounts based on judgments and estimates made by management.	The financial statements include amounts based on judgments and estimates made by management.	The financial statements include amounts based on judgments and estimates made by management
Report of independent auditors	An audit also includes assessing the significant estimates made by management.	An audit also includes assessing the significant estimates made by management.	An audit also includes assessing the significant estimates made by management
Directors' report	-	-	-
Group income statement	-	-	-
Group statement of changes in equity	-	-	-
Accounting policies	<ul style="list-style-type: none"> • Use of estimates: Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances; • Property, plant and equipment; • Impairment; 	<ul style="list-style-type: none"> • Use of estimates: GAAP requires management to make estimates. Actual amounts may differ from those estimates; • Revenue recognition; • Impairment; • Construction contracts; • Provisions and; • Employee benefits. 	<ul style="list-style-type: none"> • Use of estimates: GAAP requires management to make estimates. Actual amounts may differ from those estimates; • Revenue recognition; • Impairment; • Construction contracts; • Provisions and; • Employee benefits.

	<ul style="list-style-type: none"> • Inventories; • Construction contracts; • Provisions; • Employee benefits 		
Notes to the financial statements	<ul style="list-style-type: none"> • Taxation: Estimated tax losses; • Investment in service concessions: Fair values using discounted cash flow models based on traffic estimates; • Contracts in progress: Cost incurred plus profits recognised, less estimated losses; • Deferred taxation: Estimated tax losses; • Provision for liabilities and charges: Include amounts accrued for subcontractor estimated billings. The provisions have been determined based on estimates by 	<ul style="list-style-type: none"> • Taxation: Estimated tax losses; • Investment in service concessions: Fair values using discounted cash flow models based on traffic estimates; • Deferred taxation: Estimated tax losses; • Provision for liabilities and charges: The provisions have been determined based on estimates by management. Actual results could differ from estimates and; • Employee benefits: Post-employment medical obligations based on long-term estimates of increases in 	<ul style="list-style-type: none"> • Taxation: Estimated tax losses; • Investments: Fair values using discounted cash flow models based on traffic estimates; • Deferred taxation: Estimated tax losses; • Provision for liabilities and charges: The provisions have been determined based on estimates by management. Actual results could differ from estimates and; • Employee benefits: Post-employment medical obligations based on long-term estimates of increases in medical cost

	<p>management. Actual results could differ from estimates and;</p> <ul style="list-style-type: none">• Employee benefits: Post-employment medical obligations based on long-term estimates of increases in medical cost.	medical cost.	
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APPENDIX E.4

M&R - HLD	2006	2005	2004
Total number of instances found	66	21	13
Component	Context	Context	Context
Report of independent auditors	An audit includes assessing significant estimates made by management.	An audit includes assessing significant estimates made by management.	An audit includes assessing significant estimates made by management.
Directors' report	-	-	-
Group income statement	-	-	-
Group statement of changes in equity	-	-	-
Accounting policies	<ul style="list-style-type: none"> • Basis of preparation: Requires the use of estimates. Actual results may ultimately differ from those estimates; • Financial instruments; • Intangible assets other than goodwill; • Property, plant and equipment; • Inventories; • Leases; • Headleases; • Provisions; • Share-based payment transactions; • Revenue and; • Black economic empowerment. 	<ul style="list-style-type: none"> • Property, plant and equipment; • The group as lessee; • Headleases and other discontinued property activities; • Financial instruments; • Inventories; • Revenue; • Provisions and; • Impairment of assets. 	<ul style="list-style-type: none"> • Property, plant and equipment; • The group as lessee; • Headleases and other discontinued property activities; • Inventories; • Revenue; • Provisions and; • Impairment of assets.
Notes to the financial statements	<ul style="list-style-type: none"> • Property, plant and equipment: A subsidiary 	<ul style="list-style-type: none"> • Goodwill: Impairment testing – cash 	

	<p>company was placed into liquidation, the fair value less cost to sell as based on best estimate available;</p> <ul style="list-style-type: none"> • Goodwill: Impairment testing – cash flows beyond three years are calculated using an estimated growth rate of 2%; • Other intangible assets: Estimated useful life of computer software; • Other investments: Investment in service concessions - discounted cash flows are based on traffic estimates; • Share capital and premium: Equity settled share incentive scheme – estimated fair values of options granted; • Long-term provisions: Decommissioning and other provisions – 	<p>flows beyond three years are calculated using an estimated growth rate of 2%.</p>	
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	<p>based on directors' best estimate of the decommissioning;</p> <ul style="list-style-type: none">• Taxation: Income tax is calculated at 29% of the estimated profit for the year;• Ordinary dividends: STC payable on the dividend is estimated;• Financial risk management: Fair value of currency derivatives is estimated and;• Critical accounting estimates and judgments: A list of most significant estimates and assumptions made in the preparation of the financial statements are given (note 49).		
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APPENDIX E.5

WBHO	2006	2005	2004
Total number of instances found	24	7	6
Component	Context	Context	Context
Statement of responsibility of the board of directors	The financial statements include amounts based on judgments and estimates made by management.	The financial statements include amounts based on judgments and estimates made by management.	The financial statements include amounts based on judgments and estimates made by management.
Report of independent auditors	An audit includes assessing significant estimates made by management.	An audit includes assessing significant estimates made by management.	An audit includes assessing significant estimates made by management.
Directors' report	-	-	-
Group income statement	-	-	-
Group statement of changes in equity	-	-	-
Accounting policies	<ul style="list-style-type: none"> • Significant estimates and judgments; • Property, plant and equipment; • Impairment of assets; • Financial instruments; • Contracts in progress; • Inventories; • Provisions and; • Employee benefits. 	<ul style="list-style-type: none"> • Property, plant and equipment; • Contracts in progress; • Revenue and revenue recognition and; • Provisions. 	<ul style="list-style-type: none"> • Property, plant and equipment; • Contracts in progress and; • Provisions.
Notes to the financial statements	<ul style="list-style-type: none"> • Capital commitments: 	<ul style="list-style-type: none"> • Employee benefits: 	<ul style="list-style-type: none"> ○ Employee benefits:

	<p>Expenditure on estimated commitments will fall within one year;</p> <ul style="list-style-type: none">• Employee benefits: Estimated return on fund assets.	<p>Estimated return on fund assets.</p>	<p>Estimated return on fund assets.</p>
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