IAS 39: IMPACT ON INTEGRATED TREASURY SYSTEMS

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ABSTRACT

Introduction and objectives

This dissertation investigates how a move towards an integrated Internet-based treasury function could have a significant impact on the systems that have to support compliance with the requirements of the international accounting standard IAS 39.

The objectives of the dissertation are: to identify the measurement, recognition and disclosure requirements as set out in (or implied by) IAS 39 in order to select those requirements for which the possibility of compliance would most probably be affected by the suggested move from a traditional treasury to an integrated Internet-based treasury; and further, to identify the required changes that take place within a treasury environment when changing from a traditional treasury to an integrated Internet-based treasury function and then to match the identified probable system changes implied by the treasury environment change referred to above with the possible requirements from IAS 39 that could be affected by such a system change.

Identification of accounting requirements

IAS 39 is critically evaluated in its entirety and a number of important requirements (from the standard) that could in some way be affected by a treasury environment change are highlighted. Requirements brought about by the classification of assets and liabilities, the application of intent, tainting rules, the use of yield to maturity, fair value measurement, derecognition, impairment, disclosure and hedge accounting are separately noted. It is concluded that compliance with a significant number of IAS 39 requirements could be affected by a change in the treasury environment. The requirements identified are summarised in Annexure 3A.

The identification of change factors

In this section of the dissertation, the required changes that take place within a treasury environment when changing from a traditional treasury function to an integrated Internet-based treasury function are identified. To be able to identify a core set of minimum change factors, the dissertation sketches a traditional treasury function, investigates the advantages and likelihood of the Internet being used as a platform for an integrated treasury function, identifies some technical and business aspects of the move towards an integrated treasury function and in conclusion provides a description of the minimum change factors that a treasury function should adhere to in order to be classified as a fully integrated Internet-based e-treasury. The change factors identified are that the system should be Internet/Web-based, the internal business systems should be integrated, there would be less personnel, less paper flow and fewer visible outputs per transaction, external integration would exist and treasury functions would be run in real time with real-time banking and financial markets.

Matching the accounting requirements and change factors and suggesting solutions to accommodate the effects of IAS 39

The identified probable system changes (the change factors) implied by the move towards the requirements for an integrated treasury function are matched with the possible requirements from IAS 39 that could be affected by such a system move. Where compliance with a specific IAS 39 requirement could be affected by one of the five major changes to the treasury environment, this change factor is matched to the IAS 39 requirement. Where a requirement of IAS 39 is unlikely to be affected by the type of treasury environment, this is also identified. For each of the matches, an explanation is provided on why it is assessed that the change in the treasury environment (change

factor) could have an impact on meeting the IAS 39 requirement. Each of these explanations is classified as being a subdivision of the change factors identified. A suggested solution on how to overcome the difficulty in implementing the IAS 39 requirement for each match is offered. This exercise was largely performed by using a "matching table", which can be found in Annexure 3A of the dissertation. It is suggested that an integrated treasury function could be implemented whilst still complying with the requirements of IAS 39 if the problems identified in the matching table can be overcome.

CHAPTER 1

INTRODUCTION

1.1 Executive summary

The introduction of the international accounting standard on the recognition and measurement of financial instruments (IASC, 1999) and the implementation of AC 133 (Accounting Practice Committee) in South Africa on 1 July 2002 left corporates with the challenge of forced changes to accounting systems and strategies in order to comply with the requirements of the standard on intent, asset and liability classification and especially hedge accounting (PricewaterhouseCoopers, 2000: 1, 5, 6). These changes include (among others discussed in length in Chapter 2):

- the classification of financial assets (based on intent) as being available-for-sale, held-for-trading, held to maturity and/or internally generated;
- the classification of financial liabilities as trading or other liabilities;
- risk measurement for hedge effectiveness;
- strict hedging criteria for the purpose of hedge accounting.

At the same time those corporates planning to move towards Internet-based integrated treasury systems, as opposed to the traditional treasury environment, are faced with an electronic systems revolution, which will include on-line, in-time treasury transactions with divisional and external systems working as an integrated unit (Nolan, 2000). Bankers, suppliers and customers will be linked into a network with the treasury function standing in the middle of all integration (NWA Group Report, 1997: 51).

It is, however, apparent that the changes required by the two factors (implementing IAS 39 and moving towards an Internet-based treasury function) described above are, to say the least, conflicting: Whilst IAS 39 requires more documentation, disclosure and management intervention (IASC, 1999), electronic revolutions are often characterised by sacrificing the paper-based environment and less human intervention (Trialogue, 2000). In Chapters 2 and 3 of this dissertation, a study is done on the specific factors that could directly influence the treasury environment when IAS 39 is implemented (Chapter 2) and when an integrated treasury system is implemented (Chapter 3). These factors are combined in Chapter 4 to illustrate how changes to the treasury function can take place without the corporate facing a scenario where IAS 39 compliance is not supported by their new system.

This gives rise to the question: How does any corporate bring about the necessary changes to ensure electronic competitiveness given that these changes must ensure IAS 39 compliance is still possible? What changes can be expected in moving towards Internet-based treasuries and how should the system changes necessitated by IAS 39 be approached?

1.2 Background

1.2.1 Recognition and measurement of financial instruments

Prior to the International Accounting Standards Committee's (IASC) release of IAS 39 on the recognition and measurement of financial instruments (the South African equivalent being AC 133), corporates basically had a free hand in the accounting for financial instruments (PricewaterhouseCoopers, 2000: 5). It was possible to adapt the accounting practice to fit existing systems, rather than adopt systems that could effectively deliver

the correct and useful information for accounting purposes (PricewaterhouseCoopers, 2000: 5).

The standard calls for a redefinition of financial assets and liabilities and brings a whole new perspective and approach to hedge accounting. For example, it requires systems to quantitatively measure the effectiveness of hedges and to link hedged items with hedging instruments (IASC, 1999). IAS 39 has a major affect on risk management policies and procedures, requires a more hands-on approach by management in individual treasury transactions and places a very heavy responsibility on management to formulate and substantiate intent (PricewaterhouseCoopers, 2000: 5).

If IAS 39 is read in conjunction with IAS 32 – Presentation and Disclosure of Financial Instruments (IASC, 1997), the information that systems will have to generate is different and more comprehensive than ever. It is also safe to say that IAS 39 is not a final document, as the IASC has already released a second draft, exposure draft 157, for comment (SAICA, 2002). At this stage, however, this carries no authoritative weight and for now IAS 39 (or for that matter AC 133 in South Africa) has to be complied with.

1.2.2 Treasury integration

Traditionally, corporate treasury systems were separated from the clients, the suppliers and even the sources of finance (Schmidt, 2000). In the big corporates, treasury operations were mostly stand-alone cost centres, with little or no integration both internally and externally of the firm (Schmidt, 2000). The treasury function's contact with the outside world was mostly limited to fax and telephone systems, with the occasional e-mail user. Internally treasuries made use (and to a great extent do still make use) of a number of stand-alone systems, especially spreadsheets (Schmidt, 2000).

The rapid development of the technological and electronic industries has taken several large corporates by surprise (Trialogue, 2000), no more so than in the use of the Internet, which has changed from a recreational information source to a strategic business tool (Oracle, 2000; Forster, 2000).

Internally and externally there is a growing need for integrated treasury systems (Nartarajan, 2000; Poynter, 1997). It is no longer cost effective to have several different software systems running independently with output from one system being transferred as input to another system (for example the accounting system) without electronic integration (Forster, 2000). It has become vital that input from one system in the company immediately update all other systems – even if they are located at a head office on another continent (Oracle, 2000; Forster, 2000).

Schmidt (2000), Poynter (1997) and Wanniger (2000) suggest that the move towards Internet-based integration results in a maltitude of changes – in this instance it is these changes that are the driving force of integration (e.g. speed of transacting). The roles of individuals within the treasury environment will have to change; there will be fewer people but they will have greater responsibilities and there will be a need to widen their knowledge base (Schmidt, 1997; Poynter, 1997; Wanniger, 2000). There will be less clearly distinct arms of any given transaction, which will lead to less information generated and therefore changes in the audit trail (Schmidt, 1997; Poynter, 1997; Wanniger, 2000). Risk management will be approached significantly differently. The Internet will save on time and resources and most definitely increase the possibility of greater outsourcing of applications and services (Schmidt, 1997; Poynter, 1997; Wanniger, 2000).

1.2.3 Background overview of possible system changes in the move to integrated treasury systems

Accounting ratios are of vital importance to businesses and current shareholders (Schweser, 2000: 9–12; ACT, 2000a: 1.4–10, 5.10–11). These are used as a marketing and bargaining tool (often for the purpose of loan covenants) (ACT, 2000a: 10.11) and more recently as a public defence mechanism to gain emotional support of shareholders in order to hold or sell shares. It is these more modern uses of accounting results that can lead to the manipulation of especially the income statement and that encourages big corporates to become extremely fixated on financial accounting tools and rules that will lead to better immediate results (ACT, 2000a: 5.10–11).

Whereas the above-mentioned strategy and system changes are generated by corporates in order to exceed or achieve a certain predetermined result (a matter of choice), the e-commerce revolution brings another facet to this paradigm shift. It has been said that the reference to e-business or e-commerce will soon disappear and be replaced with business as usual or, as the Oracle company puts it: "It's e-business or out of business" (Henley, 1999). Both Nolan (2000) and Boyd (1998) stress that it would be naïve to think that treasuries will be unaffected by the electronic revolution. A large number of banks will be introducing e-treasuries. For instance, sales and purchases of foreign exchange can be done directly by using the Internet (Bedell, 2001: 14-15) and the possibility of the traditional dealer becoming redundant is real. The impact of e-treasuries on the accounting system can be vast – not to mention the impact on risk management (PricewaterhouseCoopers, 2000: 1, 5, 6, 41, 42). As di Paola suggests, we cannot ignore the fact that inputs into the accounting system (especially regarding financial instruments) will change dramatically and it will be the role of the accountant to

dissect these inputs and create true accounting information in accordance with accounting standards and practices (di Paola, 1999: 9).

Accounting rules and disclosure requirements presented by accounting standards often have an impact on financial statements and consequently on the interpretation and analysis of these statements only. Operational and economic issues are usually not dealt with at all or on such a small scale that the changes required are negligible. However, this is not the case with the recognition and measurement of financial instruments and hedge accounting.

It is important that these major impact factors are studied. Later in this dissertation I will refer back to a number of these issues as examples are identified in the more technical analysis of IAS 39.

It should be stated that the impact of IAS 39 on large companies and banking institutions differs from the impact for small and medium enterprises (WRA Group study, 1999). This dissertation will mainly focus on the effect on large companies.

The most important effects of IAS 39 on larger companies are listed and described below:

1. **There will most likely be a move away from hedging merely to serve the economic objective (risk management) and a greater emphasis will be placed on hedging for the accounting objective (eliminating income statement volatility)** (PricewaterhouseCoopers, 2000: 41–2). This creates a major problem, as the purpose of accounting should not be to determine the operational and

management policies of a company, but rather to report on the results of these operations and policies (Faul et al., 1997: 3). IAS 39 places a lot of emphasis on adopted accounting policies (IASC, 2000). This will be at the core of a number of decisions on the classification of assets that will lie in the hands of management (PricewaterhouseCoopers, 2000). The very common practice of macro hedging can become a thing of the past as in most cases it will not be allowed as a form of hedge accounting and consequently the profit figure can become extremely volatile (PricewaterhouseCoopers, 2000). The cost and effectiveness of running centralised treasuries will be reassessed as the impact of operational systems changes to accommodate the principle of one-instrument-one-hedge becomes clear (Stockinger, 2000; Nova Group Report, 1997; Nolan, 2000). It can be anticipated that in order to satisfy the income statement objectives of management, economic objectives and operations will suffer.

2. **Very costly system changes on the operational aspects (as defined in Chapter 3) will be necessary to accommodate the accounting requirements** (WRA Group, 1999)**. Together with this, an increase in staff complement could be necessitated and specialist individuals will have to be appointed on either a contract or permanent basis** (PricewaterhouseCoopers, 2000: 1, 5, 6, 42)**.** Hedge effectiveness measurements will have to be made on an ongoing basis and, depending on management policy, fair-value assessments could be complex and stricter risk management will have to be introduced (PricewaterhouseCoopers, 2000: 1, 5, 6, 42). Considering the dynamic rate of change that features in the financial market and especially the derivatives sectors, it becomes clear that these processes could only be successfully implemented under the watchful eye of a

treasury/accountant specialist (ACT Manual VI, 20000a: 11.3–11.23). This type of specialisation is expensive.

3. **Risk management techniques will become more cumbersome.** There are two basic factors that all companies adopting IAS 39 will have to take into account when it comes to risk management. Firstly, hedge accounting efficiency has now been given quantitative parameters for measuring (IASC, 1999: 146–57). This creates a need for risk management procedures that will ensure that these parameters are adhered to and, furthermore, it creates a new need for monitoring controls – most probably on at least a weekly basis (refer to Chapter 4). As explained earlier, system and intellectual resources will have to be redistributed or acquired (Bocquet, 2000). Hard documentation of risk management policies is required and will definitely be an important reference in audits (ACT Manual VI, 2000a: 11.3–11.23; ACT Manual V, 2000b: 11.4–11.21).

The second important fact to note, is that while risk management policies in the past were documented solely for management purposes, the new disclosure requirements on risk management set out in IAS 39 and IAS 32 enable investors to assess whether a company is risk averse or risk-seeking.

4. **The decision-making powers and freedom of transacting within treasury operations are changing** (Harris-Jones, 1999: 32; ACT, 20000: 11.3–11.23; PricewaterhouseCoopers, 2000: 41)**.** Treasury operations are no longer merely the management of cash, but have become far more complex. In bigger companies this is where you will find the bulk of financial risk operations being undertaken (ACT, 2000a: 11.3–11.23). It is the treasury function that will take responsibility for hedging

risks created by operations in the rest of the company (ACT, 2000a: 11.3–11.23). It can, however, hardly be expected of traders to have an in-depth knowledge of accounting concepts and standards – let alone the integral workings of the income statement and the importance of positive manipulation of the income statement. For management and long-term investors alike, the income statement is of extreme importance (ACT, 2000a: 1.4–10, 5.10–11). It could suggest that management will want to have more control over treasury decisions than at present. For treasury operations to stay within the guidelines of 80%–125% of hedge effectiveness (refer to IAS 39, Chapter 3), restrictive guidelines will have to be put in place if hedge accounting is to be performed. This challenges the front office risk manager, who will not only have to have access to and partake in high-level strategic decision-making, but will most probably have to work closely with the board and the audit committee (Morgan, 1999).

The move towards centralised treasuries will have to be re-examined (Stockinger, 2000; Nova Group Report, 1997; Nolan, 2000), as IAS 39 makes it almost impossible to accommodate bulk hedging, macro hedging and the usage of internal hedges while still adhering to the strict criteria for hedge accounting (IASC, 1999). The treasury function will have to take note not only of net risk positions, but also of individual risk positions and in their hedging of positions (IASC, 1999: 142) and it will have to choose the instruments it uses with much greater care. In order to obtain this, it is highly likely that the treasury function could be decentralised and placed under the watchful eyes of both the accounting specialists and other financial sectors of the institution (Stockinger, 2000; Nova Group report, 1997; Nolan, 2000).

5. **Stemming from the above scenario, it is more than likely that operational risk will increase, together with possible suboptimisation** (ACT, 2000b: 16.3-29,11.4-21)**.** IAS 39 lays down a foundation for more control, policies and procedures. This at first sounds very positive and it appears as if it may lead to less risk. More control-driven policies, however, suggests more monitoring of these controls and more stress on individuals to stay within the new set boundaries. A decentralised treasury function further brings to light the well-known problem of ignoring financial efficiencies in the interest of simplicity (ACT, 2000a: 11.11). Budget considerations like the reallocation of monetary resources, legislative challenges regarding human resources and the logistics behind decentralising an already centralised treasury function are but a few of the issues management can encounter. One thing looks certain – and that is that treasury function will become a responsibility centre for the hedging gains and losses on the income statement (di Paola, 1999: 9).

1.3 The research problem

1.3.1 The problem introduced

The background suggests that both the move towards a fully integrated treasury function and the adoption and implementation of IAS 39 will have a significant impact on traditional treasuries and traditional treasury systems (Wanniger, 2000; Reaburn, 2000)

It is clear that both the use of the Internet in the treasury environment and IAS 39 would require vital changes to existing systems and approaches (Forster, 2000; PricewaterhouseCoopers, 2000: 1, 5) – the challenge, however, is to determine how they will be effected, given that the changes required by the two factors discussed above are apparently in opposite directions.

As market forces are the main drivers of the move towards Internet-based treasuries (Wood, 1999) and adhering to Statements of General Accepted Accounting Practice is compulsory for most large listed corporates in South Africa (JSE Securities Exchange Regulations), it should also be clear that the problem can not be solved by merely ignoring one of the two. Furthermore, full integration of a treasury system as defined in this dissertation (refer to Chapter 3) is a function of several uncertain variables, the most important one being the time technology takes to adapt to demand. On the other hand the timeframe for complying with IAS 39 is very definite and very immediate. The challenge therefore does not lie in either compliance to IAS 39 or in establishing an integrated treasury system, but rather in determining how to manage the impact of both on a single treasury function as efficiently and effectively as possible.

1.3.2 The research problem specified

The research problem is that IAS 39 sets out a range of new recognition, measurement and disclosure requirements that entities must comply with. The move towards an integrated Internet-based treasury function can have a significant impact on the systems that have to support compliance with the standard.

1.4 The research objectives

1.4.1 Specific objectives identified

Stemming from the research problem discussed under point 3 in this chapter, the three-part objective is summarised below:

- Firstly, the objective is to identify the measurement, recognition and disclosure requirements set out in IAS 39 in order to select those requirements for which the possibility of compliance would most probably be affected by the suggested move

from a traditional treasury function (as defined in Chapter 3) to a integrated Internet treasury function. Changes to the treasury system due to technological and competitive realities could leave the system not being able to support compliance with certain requirements of IAS 39. In order to ensure compliance, the changes are modified to accommodate support of the accounting requirements. In order to do this effectively, IAS 39 will have to be critically evaluated. The practical consequences of the requirements of the major paragraphs will have to be assessed in order to identify the requirements that the treasury and accounting systems will have to be capable of handling if compliance is to be ensured.

- Further, to identify, based on a literature study, the required changes that take place within a treasury environment when changing from a traditional treasury function (as defined in Chapter 3) to a integrated Internet-based treasury function.

- Lastly, to match the identified probable system changes implied by the move towards the requirements set out in Chapter 3 (integration) with the possible requirements from IAS 39 that could be affected by such a system move. A suggestion on how to accommodate the affected IAS 39 requirements within the new system is provided for each major system change.

It is not the objective to identify all possible changes and problems that might occur, but to concentrate on those that are identified in later chapters as the main contributors to the problem as defined earlier.

1.4.2 Overview of the relevance of the forthcoming chapters to the objectives

In Chapter 2, the importance of the IAS 39 requirements for the financial statements will be assessed, along with the importance and consequences of the option to make use of hedge accounting and how this option influences the comparability of the financial information (SAICA, 1989).

Another aspect is that of the criterion of hedges having to be effective for hedge accounting to be possible (IASC, 1999) – how will effectiveness be measured and will companies deliberately change their exposure to risk in order to adhere to the definition of effectiveness according to financial accounting principles and thereby influence financial results?

In order to identify and critically discuss the changes to systems that will have to be made, a typical non-Internet treasury function (ACT, 2000b) will be sketched and a determination made of the way this treasury function will have to amend its operating procedures in order to provide an infrastructure for the financial accountant to obtain sufficient and correct information to be able to adhere to the disclosure requirements and hedging criteria as set out in IAS 39. This will include the move to an e-treasury and the influence of this on the operations of the corporate.

In addition, Chapter 3 will focus on the e-treasury environment, with an outline of a traditional treasury function, a motivation from relevant literature on why the Internet can be seen as the treasury tool of the future, the way a move towards Internet-based treasuries is handled and the effect it will have on the treasury environment. This chapter will provide insight into the more technical minimum requirements that should be present for a treasury function to be classified as an integrated e-treasury rather than a

traditional treasury. The chapter will conclude with a futuristic look at the integrated treasury function.

Chapter 4 will concentrate on addressing the last part of the three-part objective identified. that is, to match the change factors to the IAS 39 requirements which are affected (as described in the first paragraph under this heading) and suggesting a way to accommodate each affected area in order to ensure that

- the change can still take place and
- the corporate, after each identified change, will still have a system that supports IAS 39 compliance.

1.5 Specific exclusions

To avoid too wide a focus area in this research project, boundaries have to be put in place on the extent and detail of the project. Two important issues should be highlighted that will not be addressed in this dissertation. Firstly, a detailed analysis of the electronic and technical needs of treasury network systems will not be done. This type of analysis falls within the field of systems experts and, on evaluating the objectives of this research as set out earlier, it is clear that this type of analysis falls outside of the logical borders of these objectives. A second but related topic is the one of evaluating the cost of implementation of several different possible systems. This is important, but again the purpose of the research project is to determine how to implement an integrated system rather than determining which integrated system should be used.

1.6 Research methodologies

The nature of the research topic necessitates the use of more than one research strategy. Prior to explaining the specific research strategies that will be employed, it

should be mentioned that both sketching the primary problem and the subsequent main objective could be described as open ended. There are no hypotheses made and there are no tangible comparisons that can be made, as a fully integrated treasury system does as yet not exist, although semi-integrated systems can be found in developed countries. It is therefore inevitable that certain arguments and conclusions will have to be made on the basis of a deducted theory supported by professional judgement and experience.

Based on what has already been mentioned, the following research strategies will be employed:

Literature review

Studying and examining published articles and reference works will form an important part of the identification and examining of the basic components of traditional treasuries and the most important expected changes that Internet-based systems should bring to the fore. As most informed writers and scholars can for a great part of this only make informed predictions of future situations based on current facts, parts of the research conclusions will be presented in this way.

Conclusions will also be drawn from the critical examination of published international accounting standards. Professional judgement and expertise will inevitably form an important part of the interpretation of these standards. Where conclusions are drawn from these standards and justification of these conclusions is necessitated, quantitative examples will be used to prove and support the interpretation.

Interviews

As part of assessing and understanding certain accounting and treasury concepts, interviews will be scheduled with experts in their related fields. Any substantial contribution from these interviews will be documented and the work experience of the expert duly described.

1.7 Most important sources from literature survey

In doing a study of relevant sources of information in order to compile a scientifically just problem formulation and proposal, it became evident that the Internet would be the primary tool of information-gathering. The nature of the topic dictates that those debating it are typical (and this is evident from this study) of the electronic-age writers – debating and publishing directly on the Internet by means of organised and sponsored websites or merely by means of chat rooms where people across the world can contribute without interference. The latter poses a question over the validity and integrity of the contributors and therefore the data. However, sponsored websites (a typical one is Global Treasury News) are quite often a valuable source of international information.

The fundamental literature supporting the theme is summarised below:

- The principal source for accounting arguments and deductions is the International Accounting Standard (IAS 39). The standard sets out accounting practice for the recognition and measurement of financial instruments, including the classification of financial assets and liabilities, fair value and amortised cost accounting practises and the fundamentals of hedge accounting.
- The standard is supplemented by practical implementation guidelines for IAS 39, issued by the IASC, as well as literature produced by specialist teams of the major international accounting firms on implementation of IAS 39. One of these, *Understanding IAS 39,* issued by PricewaterhouseCoopers (UK), forms a basic

premise for most of the important practical implementation issues of the standard – both in corporates and in banks – and this was consulted extensively.

On the role of the traditional treasury function and the move away from this traditional functioning, several Internet-published articles were used. The more relevant ones include:

- *Eliminating the Treasury* by Coje Schmidt, the founder of EuroCash. The writer sketches the basic principal function of every treasury and defines the functional layout of the traditional treasury function. Subsequently the reasons for moving away from this layout are discussed. This is supplemented with an article by Richard Raeburn of KPMG, defining best practices of international treasuries.

- *Rules for e-business in the 21st Century* by Ken Wood. The author sets out a number of basic principle rules that e-businesses and e-treasuries alike will have to comply with in order to be successful.

- *Treasury Management and the Internet* by William Forster of IBM. The author provides several advantages of Internet-based treasury systems and explains the role of the Internet with reference to the treasury communications.

- *E-Treasurer* by Yves Bocquet. This Internet publication examines the role of the treasurer in a new and changed treasury environment. The treasurer's new attributes are examined as well as the changing role of the whole treasury and risk management structure.

A market research document, *The Internet and the Changing Financial Services Market Place* (AFP, 2000), formed an integral part of prereading as to what the international tendencies are with regards to Internet use as a practical business tool.

These references form the broad basis of the problem formulation for the research that will be done.

1.8 Summarising

In summary only a few points are noted:

- IAS 39 (Financial instruments: Presentation and disclosure) dramatically alters the way in which accounting has been done for financial instruments prior to the issue of the standard. It will most probably lead to changes not only in accounting and treasury systems and the input to these systems, but also in the corporate's approach to risk management.
- A move towards an integrated, Internet-based treasury environment will also lead to re-engineering of the entire treasury function within an enterprise. Here as well, risk will have to be reassessed and the role of the treasurer within the greater organisation could change.
- The changes brought about by IAS 39 on the one side and an integrated treasury function on the other could very well be conflicting, rather than complementing.

It can be concluded that the challenge to the corporate will be to manage the conflicts referred to in the last paragraph of the summary in such a way that the implementation of specific accounting standards (and particularly IAS 39 in this instance) does not lead to the corporate deciding to disregard more efficient treasury systems.

1.9 Chapter layout

Chapter 2	Analysis of the requirements of IAS 39. This includes a critical evaluation of the standard's content in order to identify requirements and the possible effect of implementation guidance.
Chapter 3	Insight into the more technical minimum requirements that should be present for a treasury function to be classified as an integrated e-treasury rather than a traditional treasury. The chapter further aims to provide greater clarity on the impact an e-treasury will have on the organisation, regardless of the model used to implement it.
Chapter 4	The probable system changes implied by the move towards the requirements identified in Chapter 3 (integration) are matched with the possible requirements of IAS 39 that could be affected by such a system move. A suggestion on how to accommodate the affected IAS 39 requirements within the new system is provided for each major system change.

CHAPTER 2

IAS 39: IDENTIFICATION OF ACCOUNTING REQUIREMENTS

2.1 Introduction

2.1.1 Chapter background

This chapter deals with the requirements of IAS 39, and specifically relates to the first and main part of the research objective as stated in the introductory chapter: "to identify those requirements for which the possibility of compliance would most probably be affected by the suggested move from a traditional treasury [as defined in Chapter 3] to a integrated Internet treasury." In order to do this, IAS 39 will be evaluated in its entirety and a number of important requirements will be highlighted. To create an exhaustive list of possible requirements that could in some way be affected by a treasury environment change falls outside of this objective. Through this dissertation an attempt will be made, from the standard, to identify the requirements that will most probably be affected.

2.1.2 Major sources

This chapter relies on a limited number of different sources, of which the most important ones were IAS 39 itself (IASB, 1999), two publications produced by the Accounting Technical Department of PricewaterhouseCoopers – *Understanding IAS 39* (PricewaterhouseCoopers, 2000); *Manual of Accounting* and *The Guide to UK Law and Accounting Practice* (PricewaterhouseCoopers Accounting Technical Department, 1999) – and a number of international accounting textbooks. Following the release of the standard, the IASC has released several implementation guidelines in the form of questions and answers. This guidance represents the consensus view of the Implementation Guidance Committee on the interpretation of IAS 39 (Alby, 2001). Entities are required to take this guidance into account when applying the South African

standard AC 133 subsequent to the release of Circular 2/2003 (SAICA, 2003). These guidelines were taken into consideration in this dissertation, although they are aimed more at examples of specific assets/liabilities and their treatment and are of less support on the systems' requirements. They do, however, provide a greater understanding of what is required from the standard, and therefore are useful in deducing the appropriate system requirements. The relevant implementation guidelines are dealt with in Annexures 2a, 2b and 2c. The chapter further relies on opinions of professional accountants and specialists in the field of treasury accounting (specifically the Capital Markets and Treasury group of PricewaterhouseCoopers, Southern Africa and academics at the Vrije Universiteit van Amsterdam). Being such a new and specialist topic though, published sources on IAS 39's influence on the treasury environment are very limited and in several cases, statements were made that were merely supported by personal experience gained by the author in the treasury environment. Where this was done on material aspects, the particular section will clearly be stated as being the opinion of the author, and is not presented as fact.

IAS 39 (also referred to in this text as "the standard") revolutionises the way in which we approached one of the most important parts of the balance sheet – the financial assets and liabilities (PricewaterhouseCoopers, 2000: 1, 5, 6). Where the Internet developed outside the treasury or even business environment and treasuries (for reasons of competitiveness, price, time, etc.) adapted to an existing technology (reactive), the accounting standard was specifically aimed at the instruments dealt with within a treasury environment and proactively necessitates certain important changes (Beasley-Murray, 2003; Taylor, 2001:16-18; Bird, 1999).

IAS 39 implies more and different information than its predecessors, has a huge effect on risk management policy and procedures (Miolo, 2000; Taylor, 2001:16-18; Alby, 2001; Chan, 2002; Nordgard, 2001), requires a more hands-on approach by management in individual treasury transactions (Freudmann, 2003:37) and places a very important responsibility on management to formulate and substantiate intent (Macve, 2002; PricewaterhouseCoopers, 2000: 1, 5, 6).

In this chapter, IAS 39 will be examined on a more technical level, without referring in any detail to the Internet or its effect. The implications of IAS 39 on the internal systems and decision-making of enterprises will also be looked at.

2.1.3 Current movements and changes and their impact on the study

IAS 39 is most probably not the final word in accounting for financial instruments. Different academic interpretations on new concepts and changes to the existing standard are already available; for example, the IASC has already released several new IAS 39 discussion documents and an exposure draft (IASB, 2002). But it does seem that IAS 39 will be the basis for any final standard (Beasley-Murray, 2003; Orrel,l 2002: 8–9; Keeping, 2003:15–20). The differences proposed by ED 157 (IASB, 2002) will be explored later in this chapter. At the end of the chapter, a short comparable reference is made to US GAAP.

IAS 39 adopts different accounting bases for different types of financial assets. Assets (of basically the same nature – i.e. financial) are accounted for on either a fair-value basis or on an amortised-cost basis. Both in practice and academically there are supporters and rejecters of both methods (Beasley-Murray, 2003; Keeping, 2003: 15–

20). As the debate falls outside the true parameters of this dissertation, an in-depth pro and con analysis of this issue will not be done.

The fact that the true value of financial assets could change materially does suggest that an amortised-cost basis could be inappropriate, as it does not reasonably present the true market value of assets at the balance sheet date. On the other hand, recognition at fair value with gains and losses taken directly to the income statement could result in a volatile and unreliable income statement for purposes of financial analysis (Beasley-Murray, 2003; Keeping, 2003: 15–20; PricewaterhouseCoopers Accounting Technical Department, 1999: 1005).

But this is just one of several contentious issues. There is the issue of the tainting of held-to-maturity assets, where the standard imposes penalties influencing the accounting treatment of assets regardless of the substance of a financial instrument due to actions taken in the past (IASC, 1999; Tosen, 2003: 13). The strict criteria for hedge accounting, especially with regard to macro hedge accounting, is another issue that will be considered. These issues, combined with the sensitivity of a topic that has the accounting world split down the middle – respectively anti- and pro-fair-value accountants – and the unprecedented dynamics of the market, increases the difficulty of materially amending the current IAS 39.

2.1.4 In and out of scope and chapter content

As has been mentioned, it is not within the objective of this dissertation to identify all possible effects and requirements that IAS 39 could bring about, but rather to narrow down and discuss those topics that might more probably be affected in the change to integrated treasury systems. It is therefore necessarily so that certain topics from the

standard would be placed out of scope for further investigation within this dissertation. Below is a list of the IAS 39 topics and paragraphs, with an indication of which paragraphs and topics are scoped out of this dissertation. The motivation for including a topic for further study is based on an unmeasured probability of a possible effect on treasury systems as opposed to fact. In the next chapter the system changes necessary to establish an integrated treasury function will be investigated. In-scoped items identified below could then possibly prove to not be affected within such a change in system and will then merely be excluded from the concluding chapter.

Topic from IAS 39	**Paragraphs**	**Scoped in/out**	**Motivation/Explanation**
Definition of a derivative	10	Out	Not affected by system type or intent
Definitions of categories of financial instruments	10	In	Although definition is unaffected by integration, definitions are intent based and therefore a possible systems input can be affected because of less human intervention
Definitions relating to recognition and measurement	10	Partially in	As dealt with under the topics of measurement and recognition. Measurement and initial recognition are influenced by system inputs
Definitions relating to hedge accounting	10	In	Dealt with under hedge accounting. See hedge accounting section
Other definitions	10	Partially in	Included where relevant to specific

			in-scope areas
Embedded derivatives	22–6	In	Split is required that could possibly affect treasury system inputs
Derecognition of financial assets	35–56	In	Included due to control measurements that could possibly be system based
Derecognition of financial liabilities	57–64	In	Included due to the specified quantitative measurement rule that determines accounting treatment
Initial measurement of financial assets and liabilities	66–7	Partially in	Mentioned only
Subsequent measurement of financial assets	68–92	In	Discussed as part of the instrument definitions and income statement effects. Measurement will most probably be system based
Subsequent measurement – held-to-maturity investments	79–92	Partially in	Mentioned
Reclassifications		In	Handled as part of income statement discussion
Fair-value measurement	95–102	In	Should be system based. Concentration on issues where measurement is not possible
Gains and losses	103–7	Partially in	Discussed as part of income

			statement effect
Impairment	109–19	Partially in	Mentioned as little new guidance is provided
Hedging	121–65	In	Various system measurement requirements
Disclosure	166–70	Partially in	For hedge accounting requirements. Most other disclosure requirements are not affected by IAS 39 as they are already included in IAS 32

2.1.5 Outline of the chapter

From the table above, the chapter will follow with the investigation of specific topics (listed below). The study of IAS 39 for purposes of this chapter is set out in three distinctive parts. The first part deals mainly with the standard up to hedge accounting, the second part focuses on hedge accounting only and the third is a general section. For each topic, the requirements identified from the study that could be affected by system changes will be highlighted. Furthermore, for most of the identified topics, selected implementation guidance (IASC) will be considered. The guidance questions and answers as published by the IASC will merely be listed or quoted in order to make it possible, from this guidance, to identify further IAS 39 requirements that are possibly not easily detectable from the standard. The selected guidelines are listed in Annexures 2A–2C. The effects of ED 157 (IASB 2002) will be mentioned under certain topics, but it should be noted that this dissertation mainly deals with IAS 39 in its current format (as at the end of June 2002). An overview of major changes envisaged will be provided at the end of the chapter.

The topics for this first part of the chapter are:

2.2.1 Basic introduction

2.2.2 Classifying assets and liabilities

2.2.3 Intent

2.2.4 Tainting of the held-to-maturity portfolio

2.2.5 The use of yield to maturity

2.2.6 Fair-value measurement

2.2.7 Derecognition

2.2.8 Impairment

2.2.9. Income statement effects

2.2 The effect of IAS 39 in the treasury environment – specific issues highlighted

2.2.1 Basic introduction

PricewaterhouseCoopers states in *Understanding IAS 39*: "IAS 39, the new standard on financial instruments, is revolutionary. For companies that are significant investors, borrowers or users of derivatives, the standard raises wider issues than any previous standard in any area of accounting."

Ignoring any transitional arrangements, there are basically four important issues that companies will have to deal with when implementing IAS 39 (PricewaterhouseCoopers, 2000). They are:

- important and careful consideration of classification of financial assets and liabilities;
- changes to internal risk management policies, systems, processes and procedures – with more hands-on intervention by management (Miolo, 2000; Taylor, 2001:16-18;

Chan, 2002; Nordgard, 2001; CTM, 2001; Freudmann, 2003:37; Michell, 2002; Alby, 2001);

- the management of hedging within the new, far stricter, criteria;
- the extensive new disclosure requirements (Michell, 2002; Beasley-Murray, 2003; Bird, 1999).

Prior to the publication of IAS 39, accounting for different financial instruments was severely inconsistent (Miolo, 2000; Taylor, 2001:16-18; Alby, 2001; Lidbark, 2003; Jaweira, 2002). Several financial instruments (especially derivative assets and liabilities) were not recognised on the balance sheet at all (Miolo, 2000; Taylor, 2001:16-18; Mueller, 2003; Kates, 2003:46; CTM, 2001; Jaweira, 2002).

Before studying the effect of hedge accounting on the treasury environment and enterprises in general, attention will be given to some of the other issues raised in the standard – most of which could be linked to one of the above-mentioned factors to consider.

2.2.2 Classifying assets and liabilities

2.2.2.1 Background

The standard classifies assets into four major groups. Every group differs in at least one out of two aspects from any other group – that is, they are either accounted for at fair value or amortised cost and where this is the same for more than one group, profits and losses are taken either directly to the income statement or to equity (or at least a choice is given in the case of available-for-sale assets). The four categories are:

- Held-for-trading

- Originated loans and receivables
- Held-to-maturity
- Available-for-sale.

The standard lays down strict criteria by means of definition for this classification. These definitions are based on three basic requirements:

- The type of asset; a derivative is for example always classified as held-for-trading, whilst equity can never be classified as held-to-maturity (paras 10, 18). This is a very definite classification, regardless of other factors (except for hedge accounting which is discussed later).
- The characteristics within this type: for example, whether the contract specifies a clear maturity date. This is a less than definite guideline towards classification, as here, even if there is a definite maturity date it still does not make of an asset a held-to-maturity asset. It only provides the possibility of such a classification (para. 10).
- The intended use (para. 17) of the asset. This intent is formulated by management, but existing and surrounding factors may be indicative of real intent without much explanation needed from management (Macve, 2002). In the following paragraphs the different classes of assets will be considered, along with their definitions and some problematic factors within the classifications. Intent, because of its vital importance not only in the classification of non-hedging transactions, but also and especially in hedging decisions, will be discussed in some more detail.

2.2.2.2 Financial assets held-for-trading

2.2.2.2.1 Analysis

The standard refers to these assets as assets acquired or originated with the purpose of realising gains out of short-term fluctuations in price or dealer's margin. All derivatives are seen as held-for-trading (except where hedge accounting is applicable) (para. 18). The standard further deems all assets within a portfolio as held-for-trading if the portfolio shows a pattern of recent actual profit-taking.

The question of all derivatives being seen as held-for-trading should be considered. There is some logic in this, as the purpose of derivatives is either to hedge a transaction or to realise short-term profits (ACT, 2000a). Not all derivatives are short-term. An argument could be made for derivatives that were part of a hedging transaction and the hedge became ineffective. If the hedge was a cashflow hedge, it could be more consistent to treat these derivatives as available-for-sale, as the intent with acquiring the derivative was never to exploit the short-term market as is the case with other assets in this category (hedge ineffectiveness does not necessarily suggest that the derivative is no longer an asset). Where the enterprise elected to account for an available-for-sale asset with the fair value profit or losses recognised in equity, an especially strong case could be made for the treatment of the above derivative to be reclassified into this category. However, the standard does not allow this (PricewaterhouseCoopers, 1999).

Another question that deserves addressing is the concept of a pattern of short-term profit-taking. There is room for a professional debate over what constitutes a pattern. Should this apply only if a pattern within the portfolio is established with material trading figures (say 30% or more of the total portfolio value) or approached from the other side – if trading within the portfolio did take place, is a pattern established if there was trading

10 times during the year but more than 90% of the portfolio was never affected? It does seem consistent not only that new assets within such a similar group acquired should be classified as held-for-trading, but that a reclassification of the total group would be necessary. If the reason behind this is that such trading is indicative of the changing intent of the enterprise, the author agrees with the notion that regular trading even when the value is relatively small does indicate a change in intent. This creates two other dilemmas. The first is that changes in intent could very likely be used to manipulate the income statement where the choice of equity accounting was made for the available-for-sale category (ACT, 2000a; PricewaterhouseCoopers, 2000). ED 157 solves this problem as it effectively makes it possible for assets that previously would have been classified as available-for-sale to be fair-valued with differences recognised in the income statement, whilst other revaluations of available-for-sale assets would all be taken to equity (IASC, 2002). Secondly, in the opinion of the author, this establishes a rule that intent should be measured according to regularity of transactions rather than total value as value cannot be indicative of a pattern (a one-off sale of 60% of a group of assets available-for-sale hardly creates a pattern).

It is worthy of note that as with the held-for-trading assets the treatment of all held-to-maturity assets is also affected by transactions within the group, even where all assets were not affected. The standard states in para. 83 that: "An enterprise should not classify any financial assets as held-to-maturity if the enterprise has, during the current financial year or the two preceding financial years, sold, transferred, or exercised a put option on more than an insignificant amount of held-to-maturity investments before maturity (more than insignificant in relation to the total held-to-maturity portfolio)." The difference in treatment is that this paragraph clearly rather relates to value (the word "amount" is used in the standard) than regularity of the transaction, which could create

suggestions that the methods and bases used in determining the reasons for reclassification are to say the least, inconsistent. It does however possibly give some guideline as to what the standard setters suggest the word “recent“ to mean (as found in the definition of held-for-trading assets) (para. 10).

2.2.2.2.2 Summary of requirements

The following major requirements have been identified from the standard with regard to held-for-trading assets:

- There must be a measurement or indication of the purpose at acquisition of the asset.
- The instrument type has to be identified (especially derivative vs. non-derivative) and split into components (Taylor, 2001: 16–18; Nordgard, 2001; Michell, 2002).
- Instruments must be assigned to portfolios based on their type classification.
- The pattern of profit-taking for other asset classes (than held-for-trading) should be tracked as reclassification could be necessary (Newberg, 2001: 14-15; Taylor, 2001: 16–18; Alby, 2001; Chan, 2002; Nordgard, 2001; Mueller, 2003; Freudmann, 2003: 37; Michell, 2002).

2.2.2.3 Loans and receivables originated by the enterprise

2.2.2.3.1 Analysis

It should be noted that this category does not include those loans and receivables originated with the intent to be sold immediately or in the short-term – they are rather treated as held-for-trading (para. 10). Because these assets are in a separate group from the held-to-maturity assets, they are not affected by the tainting rules, even though the accounting for the two groups are similar. Tainting is discussed later in this chapter.

The possibility of reclassifying assets as held-for-trading does leave room for manipulation, as initial intent is the only criterion – there is no rule that the asset has to be sold (para. 10). The reason why this seemingly does not create a problem is that para. 85 of the standard clearly states that "under this standard, fair value is a more appropriate measure for most financial assets than amortised cost". This supports the view that the IASB is moving towards overall fair-value accounting in the long term (Newberg, 2001:14-15; Miolo, 2000; Taylor, 2001:16-18; Jaweira, 2002). This view is further supported in the exposure draft (ED 157, IASC, 2002). This does in some way dilute the basic rule of consistency set out in IAS 1. It is therefore the author's conclusion that if the reasoning is followed that intent of use outweighs the nature of the asset when classification is done, then those assets not intended for short-term trading should either be classified as held to maturity or available-for-sale, as both of these classes are intent rather than "nature" based. This view is supported by para. 18a of ED 157 (IASC, 2002), which states that presentation and disclosure favours nature, rather than intent. If the nature and type of asset outweighs intent, then all loans and receivables originated by the enterprise should be classified based on their nature.

2.2.2.3.2. Summary of requirements

The following major requirements have been identified from the standard with regard to loans and receivables originated by the enterprise:

- The assets should be identified and tracked as originated. The pattern of profit-taking should be considered (Newberg, 2001: 14–15; Taylor, 2001: 16–18; Alby, 2001; Chan, 2002; Nordgard, 2001; Mueller, 2003; Freudmann, 2003: 37; Michell, 2002).
- There should be a portfolio split, especially between originated loans and held-to-maturity assets, as originated loans are not affected by the tainting rules (described later in this chapter).

2.2.2.4 Held-to-maturity assets

2.2.2.4.1 Analysis

It seems that this category of assets was especially introduced to make the standard more acceptable to certain enterprises who would not accept full-on fair-value accounting (PricewaterhouseCoopers, 1999). For an enterprise to classify an asset as held to maturity, it has to have the intent and ability to indeed hold the asset to maturity and the asset has to have fixed or determinable payments and a fixed maturity (para. 10). The greater restrictive definition of this class shows that the standard setters really wanted to keep this category to a minimum and encourage as far as possible fair-value accounting for financial assets (Newberg, 2001:14-15; Miolo, 2000; Taylor, 2001:16-18; Jaweira, 2002). This does, however, introduce an inconsistency problem where financial assets are treated in different ways (Beasley-Murray, 2003; Keeping, 2003: 15–20).

As PricewaterhouseCoopers (1999) put it: "A positive intent to hold assets to maturity is a much higher hurdle than simply having no present intent to sell."

2.2.2.4.2 Summary of requirements

From the implementation guidance provided and the analysis of the standard itself, the following requirements with regards to held-to-maturity assets are identified:

- Intent has to be determined (Macve, 2002).
- The ability to hold the instrument to maturity must be established.
- Maturity dates will have to be identified for each transaction.
- A separate portfolio has to be created for the testing of the tainting rules.

- As with all other instruments, embedded options will have to be identified and split out (Miolo, 2000; Keeping, 2003a: 15–20).
- The system must be able to do quantitative tests to determine the applicability of the "close to maturity" and "substantially all" rules as referred to in para. 83.
- Where sales are done from this portfolio, the intent and reason for these sales must be established in order to measure them against the exceptions provided for in para. 86. Where applicable, this could result in the held-to-maturity classification of other assets in the portfolio not being tainted due to the sale of a certain part of assets from the portfolio (Tosen, 2003: 13).
- The system will have to be able to calculate the effective interest rate. This is dealt with later in the chapter as well.

2.2.2.5. Available-for-sale assets

2.2.2.5.1 Analysis

This category in a sense represents the reserve team of financial assets, those that were not selected for any of the other categories. It seems that also in this instance, the standard setters had to put in place a reconciliatory measure, given the one-off choice to recognise gains and losses from fair-value recognition either in the income statement or in equity for assets in this category. It could be worth noting that proposed changes in ED 157 (IASC, 2002) would render this choice unnecessary. Recognition of these gains and losses in equity is in line with US GAAP (FAS 133) and it does seem that this will initially be a popular choice (Bird, 1999; Taylor, 2001: 16–18; Nordgard, 2001). It is suggested that accounting policy changes from equity to income statement will become acceptable as they will be in line with the move towards fair-value recognition via the income statement, whilst a change from income statement to equity recognition will

almost be impossible (Newberg, 2001: 14–15; Miolo, 2000; Taylor, 2001: 16–18; Jaweira, 2002; PricewaterhouseCoopers, 1999). This view is stated in the standard as well. The author does not necessarily support the latter argument, as a change in accounting policy should be made if it will result in a more appropriate presentation of events or transactions in the financial standards as per IAS 1 (IASC, 1997a).

2.2.2.5.2 Summary of requirements

The following requirements should be highlighted:

- A specific portfolio should be created for these assets in order to accommodate the different accounting treatment.
- A policy decision is required for the choice of taking unrealised gains/losses to the income statement or to equity reserves. It should be noted that under the terms of ED 157, this choice will not exist.

2.2.2.6. Classification of liabilities

There are only two classifications – trading and non-trading liabilities (para. 10). It will suffice to mention that the definition of trading liabilities is similar to that of assets held-for-trading and so is the accounting. All other financial liabilities are non-trading and are measured at amortised cost (para. 18). The same challenges are therefore encountered in a system change.

2.2.2.6.1 Summary of requirements

A split has to be made between trading liabilities and other liabilities:

- For trading liabilities, the requirements are similar to those applicable to trading assets.

- For other liabilities (than those classified as trading liabilities), the entity should be able to perform amortised cost calculations.

2.2.3. Intent

2.2.3.1 Background to intent

IAS 39 does make it far more difficult to manipulate the income statement as it lays down strict criteria for hedge accounting and far more rigid classifications of assets and liabilities (PricewaterhouseCoopers, 1999). A major factor that could open the way for manipulation of the income statement is the role of management's intent, which is particularly prevalent in the classification of assets (Macve, 2002; Freudmann, 2003: 37). Held-to-maturity assets are for example not recognised at fair value, unlike held-for-trading or available-for-sale assets and trading liabilities. These assets (held-to-maturity) are taken into the balance sheet at fair value initially and thereafter at amortised cost.

This can be illustrated by a simple example. Company A buys 12% redeemable preference shares with a nominal value of R 100. The shares are classified as a held-to-maturity asset. Because of an increase in market interest rates, the fair value of the shares drops to R 95. If the shares were not classified as held-to-maturity assets, the company would have recognised a loss of R 5 in the income statement, and the asset would have decreased by R 5. The only reason that the financial statements do not reflect this loss is because of the classification, which has been made on the basis of management's intent.

In auditing the financial statements, it would not be sufficient for the auditor to rely only on management's statements with regards to intent (SAAS 580, SAICA, 1997b). Auditors will therefore have to collect evidence in order to test the intent of management.

Neither the standard itself nor the implementation guidance provide these guidelines, but IAS 39 does provide certain scenarios where intent would not exist.

Intent is widely used in the legal framework and though be it that accounting is more concerned with substance than legal form, it would in this case be of great use to look at a legal definition of intent and, together with that, establish a few tests that auditors and accountants can use to determine whether it is justified to accept management's representations.

The author's view on intent is set out in Annexure 1.

2.2.3.2 Guidance from the standard – held to maturity

The standard provides some support with regard to intent for held-to-maturity asset portfolios. The following factors would prevent management from claiming positive intent to hold assets to maturity (par. 79, IAS 39):

1. **The enterprise has the intent to hold the asset for an undefined period** (para. 79a)**.** This restriction is rather clear from the outset. The test to apply is (as previously mentioned) a positive one. The enterprise has to show that it has the positive intent to hold to maturity, rather than merely not having the intent to sell the asset in the foreseeable future (PricewaterhouseCoopers, 1999). Though be it that fair value accounting is encouraged and by means of restrictions held-to-maturity classification is severely limited, the standard does not leave the option open for assets that are held to maturity to be recognised using either amortised cost or fair value. It is clear that all held-to-maturity investments should be measured using amortised cost, applying the effective interest rate method. Thus, in circumstances

where management foresees that it will be beneficial in the short-term to use fair value (where it is expected that fair value in the short-term will increase) they can merely state that they are unsure of the length of time for which the asset will be held, even where the true intent is to hold it to maturity. Later the enterprise can elect to reclassify the asset as held to maturity (rather than say, available-for-sale) and any subsequent impact on the income statement would only be at a much later stage. Reclassification to held to maturity is very difficult and highly unlikely (PricewaterhouseCoopers, 1999). ED 157 (IASC, 2002) proposes that an enterprise would have the choice to carry any asset at fair value. This, however, does not affect the possibility of reclassification as described above.

2. **"The enterprise stands ready to sell the financial asset in response to changes in the market interest rates or risks, liquidity needs, changes in the availability of and yield on alternative investments, changes in financing sources and terms, or changes in foreign currency risk** [para. 79b]**."** Under para. 83 of IAS 39, held-to-maturity assets that are sold prior to maturity date could lead to severe penalties for the enterprise – such as a forced reclassification of all held-to-maturity assets for a period of two financial years. In fact, this creates a new dilemma for the auditor, who will have to comment on the classification of assets. Technically speaking, if this condition is interpreted in a practical rather than theoretical sense, no assets should according to the author be classified as held to maturity except where:

   - there is absolute certainty that the market for this asset will not become more favourable in the next year, with an expected decrease of value after that, or
   - the enterprise is under a legal or contractual obligation not to sell the asset, or

- after an assessment has been done of liquidity risk, there is certainty that there are more economically favourable ways to manage this risk than to sell the specific asset classified as held-to-maturity.

Where none of the above conditions are applicable, it should be stated that it is more probable that the enterprise will sell this asset in the next year than not, and therefore it should not be classified as held to maturity. The standard attempts to address this by placing the important criterion of ability (to hold to maturity) next to intent (para. 10). However, probability that intent will change due to possible changes in the market should be considered as the enterprise may still have the ability to keep an asset to maturity, although the cost of doing this will be more than the advantage gained.

3. **The issuer has a right to settle the financial asset at an amount significantly below its amortised cost.** As this part of the chapter is concerned with the intent of the holder of a financial asset, this condition is particularly interesting. The move is made firstly from the intent of the holder to the actions or expected actions of the issuer and secondly from maturity date to consideration. This condition should rather be addressed by the accounting practices of the holder by applying the rule of substance over form as prescribed in IAS 1 (IASC, 1997a). A possible accounting solution, in the author's opinion, could be that if the intent of the holder is still to hold the asset to maturity and it is known that the settlement will be substantially lower than the amortised cost, an assessment should be made of that settlement amount and the difference should be discounted as part of the amortising of the asset on the effective interest rate method. Any difference on the actual amount received and the amortised value at that date should be recognised as a profit or a loss in the income

statement on settlement. The effects of possible impairment (discussed later in this chapter) would have to be considered by the holder of the asset.

4. **"The enterprise has previously sold or transferred more than an insignificant amount of such financial assets before maturity other than by:**
   i. **sales close enough to maturity or call date so that changes in the market rate of interest would not have a significant effect on the financial asset's fair value; or**
   ii. **sales after the enterprise has already collected substantially all of the financial asset's original principle through scheduled payments or prepayments."**

This condition can be seen as a provision for protection against the misuse of management's intent and changes in that intent. It seems that it is more a case of testing the integrity of management than a sound accounting principle. The question arises, however: can actions performed in the past regarding similar assets be indicative to intent on a specific asset? The IASC has highlighted this issue as an unresolved one in the annexure to the released ED 157 (IASC, 2002). In the opinion of the author, the answer could be yes, but this should only be if the enterprise cannot prove that intent was indeed to hold the asset to maturity date. The rule should thus be that the enterprise will be seen as not having intent to hold assets to maturity, unless it can prove otherwise. If the enterprise can by means of valid explanation prove that specific assets should be held to maturity, then that classification should stand, as any other classification will be incorrect and misleading.

An interesting reference to a practical issue that could give guidance to accounting and auditing practice comes from the South African appeal court, where it was stated that an individual (this case related to intent regarding income tax consideration) would be extremely disadvantaged if his or her *ipse dixit* (own testimony regarding his or her intent) weren't primarily used to rely on, as in this case the onus to prove intent lies with the individual (Malan vs. CIR, 1983).

It would therefore be unreasonable to have all assets classified as non-held-to-maturity assets, merely because intent on the majority of assets could not be proven. If assets in this case are classified as held to maturity, the onus will move to the enterprise to prove that intent using the balance-of-probability method. The more important accounting justification of this tainting rule is, however, discussed later in this chapter.

2.2.3.3 Summary of requirements

The most prevalent role of management's intent (excluding hedge accounting rules) within the standard is found in the definitions for the classification of assets (para. 10) and therefore in the subsequent measurement paragraphs (paras 68–92) (Macve, 2002; Freudmann, 20003: 37). The requirements of intent have therefore been included in the requirements stated under sections 2.2.2.2.2 and 2.2.4.2 of this chapter. The following should, however, again be highlighted:

- Management's intent should be measured at the stage that the asset is acquired and, according to para. 10, if this intent was "principally for the purpose of generating a profit from short-term fluctuations in price or dealer's margin" then the asset should be classified as held-for-trading.

- In order to classify the asset as held-to-maturity, there should be positive intent and ability to hold the asset to maturity (par. 10).
- The entity should be able to identify intent and ability at acquisition and changes in ability with subsequent measurement.
- Furthermore, changes in subsequent intent (applicable to held-to-maturity assets) should be identified. This has an array of consequences, for example tainting requirements.
- With intent, ability should be monitored (with regards to held-to-maturity assets).
- Where intent is claimed, the exceptions noted and described above (from par. 79) should be considered in all cases and consistently applied.

2.2.4. Tainting of the held-to-maturity portfolio

2.2.4.1 Analysis

The standard states in paragraph 83 that "an enterprise should not classify any financial assets as held-to-maturity if the enterprise has, during the current financial year or during the two preceding financial years, sold, transferred, or exercised a put option on more than an insignificant amount of held-to-maturity investments before maturity (more than insignificant in relation to the total held-to-maturity portfolio)." However, a number of exceptions are highlighted in paragraphs 83 and 86. They are:

- sales that are close enough to maturity or the asset's call date that changes in the market rate of interest would not have a significant effect on fair value;
- sales that occur after the entity has already collected substantially all of the financial asset's original principal through scheduled payments or prepayments;
- sales due to an isolated event that is beyond the enterprise's control, is non-recurring and could not have been reasonably anticipated by the enterprise.

Paragraph 86 further states that sales before maturity could satisfy the condition in paragraph 83 and therefore not raise questions with regards to the intention to hold to maturity, if the sales are due to:

- a significant deterioration in the issuer's creditworthiness;
- a change in tax law that eliminates or significantly reduces the tax-exempt status of interest on the investment;
- a major business combination or major disposition;
- a change in statutory or regulatory requirements significantly modifying either what constitutes a permissible investment or the maximum level of certain kinds of investments;
- a significant increase by the regulator in the industry's capital requirements;
- a significant increase in the risk weights of held-to-maturity investments used for regulatory risk-based capital purposes.

This issue has already been discussed under more than one section in this chapter. In essence, the paragraph suggests that should an enterprise sell (in circumstances where the exceptions do not apply) a "not insignificant" amount of assets, the enterprise cannot classify, for at least two years, any asset as being held-to-maturity. If therefore an enterprise does acquire an asset and indeed has the positive intent and ability to hold the asset to maturity, it will still be accounted for as available-for-sale (para. 83). IAS 39 places a restriction of classification based on past events and this overrides the basic substance-over-form principle of accounting. A true reflection of the underlying economics of the transaction and the asset is not provided (Beasley-Murray, 2003; Newberg, 2001: 14–15; Alby, 2001). This regulatory function does not in the author's

view reconcile with the purpose of financial standards. The IASC describes the purpose of financial standards as to provide information about the financial position, performance and cashflows of an enterprise that is useful to a wide range of users in making economic decisions (IAS 1, IASC(a), 1997). Does this definition leave room for an individual standard to place punishment rules on the way assets are classified, regardless of the true financial intent and therefore position? The objective of an audit of financial statements is to enable the auditor to express an opinion as to whether or not the financial statements fairly present, in all material respects, the financial position of the entity at a specific date, and the results of its operations and cashflow information for the period ended on that date, in accordance with an identified financial reporting framework and/or statutory requirements (SAAS 120, SAICA, 1995). If the auditor finds that assets are classified inappropriately, a modified auditor's report should be the remedy for management's actions (SAAS 700, SAICA, 2001). This is a basic principle which adds value to all audited financial statements and therefore also to the standards used to compile them.

2.2.4.2 Summary of requirements

Requirements that should be highlighted include the following:

- Assets affected by tainting rules should be linked under one portfolio (Newberg, 2001: 14–15; Taylor, 2001: 16–18; Alby, 2001; Chan, 2002; Nordgard, 2001; Mueller, 2003; Freudmann, 2003: 37; Michell, 2002).
- A history of the held-to-maturity portfolio should be kept to adhere to the two-year rule as referred to in para. 83.
- Transactions will have to be tested for adherence to the exceptions listed in paras 83 and 86.

- All of these requirements should be read in conjunction with the requirements set out under the held-to-maturity asset classification.

2.2.5. The use of yield to maturity

2.2.5.1 Analysis

The standard does not provide a choice as to the method used to amortise. This is welcomed, as the yield-to-maturity method gives a true reflection of the time value of money effect, and as only one method is allowed, comparability and consistency (in line with IAS 1) is better achieved.

2.2.5.2 Summary of requirements

The following requirements relate to yield to maturity:

- A split should be made to indicate which transactions are fair valued and which transactions are measured at amortised cost.
- The system should be able to do the amortised cost calculation.
- Where expected cash payments differ from contractual payments, this should be identified.

2.2.6. Fair-value measurement

Per the definition of IAS 32 (IASC(b), 1997), fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm‘s length transaction. The standard considers fair value reliably measured if:

- the variability in the range of reasonable fair value estimates is not significant for that instrument, or

- the probabilities of the various estimates within the range can be reasonably assessed and used in estimating fair values (para. 95).

The circumstances in which fair value would not be reliably measurable should be very scarce, as the standard provides for the use of valuation models where active market prices are not available, but reliable data can be found to use the model. The possibility of constructing parts of an instrument to determine the value is also possible. The use of different and inconsistent models and data is mostly overcome by the disclosure requirements of IAS 39, which state that methods and significant assumptions applied should be disclosed. It seems that the standard further attempts to support consistency by suggesting the prioritised route an enterprise should follow in determining fair value – firstly quoted market prices, if they are unavailable the price of the last transaction, then mid-market prices, then accepted techniques and models, etc. (para. 99). It is widely accepted that given the standard's permitted methods of determining fair value, problems with valuing at fair value will only be possible for unquoted equities without a active market and for which other methods of reasonably estimating fair value are clearly inappropriate or unworkable (PricewaterhouseCoopers, 1999). These circumstances are quite rare, especially taking into account that under IAS 32 companies had to disclose fair values even before the adoption of IAS 39 (IAS 32; PricewaterhouseCoopers, 1999). It should further be noted that when determining fair value the going-concern presumption is of vital importance, as under liquidation companies are often forced to sell assets and can not be seen as being a willing seller.

Although the standard makes fair-value valuation widely possible, it is worth noting that it does not necessarily make it any easier to implement. For a lot of enterprises, this standard implies a change in systems (Miolo, 2000; Taylor, 2001: 16–18; Chan, 2002;

Nordgard, 2001; CTM, 2001; Freudmann, 2003: 37; Michell, 2002) and most probably a reorganising of intellectual capital within the enterprise (Beasley-Murray, 2003; Taylor, 2001: 16–18; PricewaterhouseCoopers, 1999). Putting in place systems for fair valuation is without a doubt very expensive, especially taking into account the dynamic environment of ever-changing instruments and the speed of transactions that will be possible using Internet technology (WRA Group, 1999).

2.2.6.1 Summary of requirements

Important requirements to be highlighted include:

- A split is required between instruments to be valued at fair value and those carried at cost or amortised cost (Taylor, 2001:16–18; Nordgard, 2001; Michell, 2002).
- Within the fair-value group, there should be an indication of which instruments will be valued using market feeds, which will be valued using generic models and which will be valued using specialised models. The source of the fair-value calculation has to be identified (Miolo, 2000). This is necessary in order to enable valuation systems to use the correct source data in each valuation.
- Where models are used, the system should cater for the input of supporting data and the disclosure of major assumptions is required (Beasley-Murray, 2003; Bird, 1999; Michell, 2002).
- Where practical, instruments should be able to be broken down into different elements for fair-value calculation (Taylor, 2001: 16–18; Nordgard, 2001; Michell, 2002).

2.2.7. Derecognition

2.2.7.1 Analysis

IAS 39 provides guidance on derecognition of financial assets, partial derecognition and derecognition combined with recognition of a new liability (paras 35–65). A very important step taken by IAS 39 is the move away from the risks-and-benefits approach of recognition towards a control approach – evaluating both the buyer's and the seller's positions in determining if the seller has substantially given up control or not (PricewaterhouseCoopers, 1999). This approach does make way for certain inconsistencies that are expected to be addressed by the Joint Working Group of the IASC. As stated, the rules of derecognition focus on whether control of the contractual rights that compromise an asset has been transferred from the seller to the buyer. IAS 39 goes further and approaches an asset from a components perspective (Taylor, 2001: 16–18; Nordgard, 2001; Michell, 2002). An asset can therefore be partially derecognised, with the remaining components recognised and measured separately. Under the risks-and-benefits approach, all risks and rewards associated with the asset are considered together and the asset is derecognised when substantially all the risks and rewards are transferred, and not only those of specific components. If, under the control approach, however, the rights and obligations retained are so significant that they negate the view that control has been transferred, derecognition does not take place. There are, however, a few points of concern that should be raised (PricewaterhouseCoopers, 1999). It is worth noting that ED 157 has removed the word "control" and replaced it with "contractual rights to the cash flows".

Later in the standard an example is provided to illustrate when derecognition takes place and a separate asset is recognised: "A transfers certain receivables to B for a single, fixed cash payment. A is not obliged to make future payments of interest on the cash it

has received from B. However, A guarantees B against default loss on the receivables up to a specified amount". In both cases, B has the right to transfer the payments of the receivables to A if default occurs – either by means of a guarantee or by means of the put option, though the transaction is treated substantially differently. In the latter example, the credit risk is not transferred, but due to the transfer of control (and not risk) required by the standard, derecognition is made possible.

The standard shows that where the position of either the enterprise or the transferee indicates that the transferor has retained control, the transferor should not remove the asset from its balance sheet (para. 37). This places a positive obligation on the enterprise to consider the position of a transferee, an obligation that is somewhat unprecedented in accounting standards.

2.2.7.2 Derecognition of liabilities

Another somewhat controversial issue is that of classifying liabilities as being either extinguished or not extinguished and derecognition takes place with extinguishment. Where there is an exchange of financial instruments, this classification is based on a minimum percentage of the difference between the present value of net cashflows under the new terms from the present value of the remaining cashflows under the original debt. That percentage is 10% (para. 62). The difference in accounting for change of 10% and for one of 9% is substantial. Under the 10%, a gain or loss is recognised at settlement date, where as under a restructuring (9% or less) the gain or loss is an adjustment to the carrying amount of the debt and amortised over the remaining period of the debt (trading assets would be treated differently). That there should be a differentiation is certain, but why 10% and not 12% or 15%?

2.2.7.3 Summary of requirements

The most important requirement for derecognition is that control will have to be evaluated, considering both the position of the holder and the issuer of the instrument. ED 157 proposes a move towards using “contractual obligation“ rather than “control“ as a derecognition approach.

2.2.8. Impairment

2.2.8.1 Analysis

Consistent with any other asset, financial assets too are subjected to possible impairment. The rules of impairment do not differ from those of any other impairment of assets, but the standard gives useful tips in the rates to use for discounting purposes and the treatment of losses (Orrell, 2002: 8–9). It is unfortunate that the standard on impairment, IAS 36 (IASC, 1998), excludes impairment of financial assets that resort under IAS 32 (IASC, 1997b), as there is no reason for the difference in treating impairment of these assets.

2.2.8.2 Summary of requirements

As stated earlier, the test for impairment is not much different than for any other asset. The enterprise will have to be able to determine probable future cashflows and a suitable discount rate, calculate present value and compare this value to the current value. As this has to be done for all assets, this requirement is not seen as a new requirement brought about by this specific standard (Taylor, 2001: 16–18; Chan, 2002; Nordgard, 2001; Orrell, 2002: 8–9; Mueller, 2003; Lidbark, 2003; Keeping, 2003(a: 15–20; Michell, 2002).

2.2.9. Income statement effects

2.2.9.1 Analysis

Certain ways in which the income statement (under any accounting standard) can be manipulated are:

- if a standard provides a number of choices of implementation;
- if a standard does not provide any such choices or provides insufficient guidelines in how an aspect should be implemented;
- where definitions are open to various acceptable interpretations due to vagueness.

If the possibility of manipulating the income statement under IAS 39 is considered, then these are the aspects we should test the standard on.

The standard is much more restrictive in choices than any predecessors. For example:

- Only yield-to-maturity amortisation
- all derivatives must be treated as held-for-trading;
- hedging (which is discussed later) is strictly controlled through qualifying criteria and ongoing testing of effectiveness;
- strict criteria for held-to-maturity assets exist (even if they are subject to severe criticism);
- transfers between classes of assets are made extremely difficult.

Where a choice is provided (for example the handling of gains and losses in the available-for-sale category) it is once-off and changing of accounting policy should be difficult, though not impossible (PricewaterhouseCoopers, 1999).

It is almost a pity that the standard opened the possibility to account for gains and losses in equity when classifying an asset as available-for-sale. If this had not been the case, all financial assets carried at fair value would have been treated similarly. It would appear that the easiest way not to have gains and losses on an asset immediately recognised in the income statement is to treat it as available-for-sale where the initial elected policy of equity accounting exists. Management will have to prove that the intent when acquiring the asset was not trading where the nature of the asset and past actions regarding similar assets clearly indicate the opposite (para. 10). The standard has somewhat limited the possibility of transferring assets from the held-for-trading class as the definition refers to the intent when the asset was acquired or originated (para. 10). Therefore, if the asset was in that category it is indicative of the original intent and the asset will always be classified as such (para. 10).

IAS 39 makes it much harder to predict the timing and amount of gains and losses from financial instruments than was the case previously, where enterprises could carry investments at cost or at fair value with gains and losses only shown in the income statement when sold (Beasley-Murray 2003; Keeping 2003(a): 15–20).

The three main areas built into IAS 39 to combat income statement manipulation are the tightly defined handling of held-to-maturity investments, the tainting of the portfolio and the difficulty in transferring assets from one class to the other (PricewaterhouseCoopers, 1999). Where hedge accounting is not being applied, the overwhelming feeling is that IAS 39 will lead to a highly volatile income statement, which is one of the greatest areas of concerns for many financial professionals (Beasley-Murray, 2003; Miolo, 2000; Taylor, 2001:16–18; Chan, 2002; Mueller, 2003; Lidbark, 2003; Keeping, 2003(a):15-20; Kates, 2003:46; Michell, 2002).

2.2.9.2 Summary of requirements

The requirements linked to this section have been incorporated mainly in the section dealing with asset and liability classification and the respective accounting treatment. The requirements identified under the latter section will form part of the summary of requirements set out in Appendix 3A.

2.3 Hedging

2.3.1 Analysis

2.3.1.1 Background

As this dissertation (and specifically this chapter) does not aim to explain IAS 39 in its totality, but rather highlight relevant aspects to the main objective as stated at the beginning of the chapter, the actual principles of hedge accounting are of a lesser significance compared to the requirements to be met before hedge accounting can be adopted. IAS 39 strictly regulates hedge accounting through hedge accounting criteria – they are (from para. 142):

- "At the inception of the hedge there is formal documentation of the hedging relationship and the enterprise's risk management objective and strategy for undertaking the hedge. That documentation should include identification of the hedging instrument, the related hedged item or transaction, the nature of the risk being hedged, and how the enterprise will assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair value or the hedged transaction's cash flows that is attributable to the hedged risk.
- The hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk, consistent with the originally documented risk management strategy for that particular hedging relationship.

- For cash flow hedges, a forecasted transaction that is the subject of the hedge must be highly probable and must present an exposure to variations in cash flows that could ultimately effect reported net profit or loss.
- The effectiveness of the hedge can be reliably measured, that is, the fair value or cash flow of the hedged item and the fair value of the hedging instrument can be reliably measured.
- The hedge was assessed on an ongoing basis and determined actually to have been highly effective throughout the financial reporting period."

From the outset it is suggested that these strict conditions can lead to important and expensive system changes (Beasley-Murray, 2003; Taylo,r 2001: 16–18; Miolo, 2000; Chan, 2002; Nordgard, 2001; CTM, 2001; Freudmann, 2003: 37; Michell, 2002). Hedging strategies will have to be revised (Miolo, 2000; Taylor, 2001: 16–18; Alby, 2001; Chan, 2002; Nordgard, 2001; CTM, 2001) and systems will have to be put in place to constantly measure effectiveness of individual hedges (Beasley-Murray, 2003; Taylo,r 2001: 16–18; Chan, 2002; Nordgard, 2001; Lidbark, 2003; Kates, 2003: 46; Freudmann, 2003: 37; Michell, 2002) and keep track (the so-called flag-and-track transactions) of hedging relationships (Newberg, 2001: 14–15; Taylor, 2001: 16–18; Alby, 2001; Chan, 2002; Nordgard, 2001; Mueller, 2003; Freudmann, 2003: 37; Michell, 2002; PricewaterhouseCoopers, 1999).

As pointed out by PricewaterhouseCoopers (1999) it is important to differentiate between the economics of hedging and hedge accounting. **Economic hedging is seen as the process of entering new transactions and establishing relationships between transactions to provide an effective offset to reduce an economic hedge.** This is also highlighted by several other commentators, noting that hedging practices

and risk management could be altered merely to accommodate accounting rules, rather than relying on business logic (Beasley-Murray, 2003; Bird, 1999; Taylor, 2001: 16–18, Chan, 2002; Lidbark, 2003; Keeping, 2003(b: 15–20; Freudmann, 2003: 37).

On the other hand, hedge accounting is only entered into when the requirements of the standard are met and the general rules of treating gains and losses as described earlier in this chapter therefore change in order to recognise offsetting gains and losses simultaneously in the income statement. Previously there were no clear-cut rules on how to treat hedges and inconsistent treatments were applied (Miolo, 2000; Taylor, 2001:16-18; Alby, 2001; Lidbark, 2003; Jaweira, 2002). The hedged item and the hedging instrument were usually treated as one instrument or transaction (PricewaterhouseCoopers, 1999). Here again, and specifically mentioned in the first criterion for hedging, management will have to decide which transactions are intended for which risk (Chan, 2002; Nordgard, 2001; Keeping, 2003(b): 15–20). The position being hedged and the hedging instrument must be documented with the risk designated (para. 142a) (Beasley-Murray, 2003; Miolo, 2000; Chan, 2002; Nordgard, 2001; Mueller, 2003; Lidbark, 2003; Keeping, 2003(b):15-20; Kates, 2003:46; CTM 2001; Michell, 2002). The standard therefore provides for a kind of hedging package. Macro hedging becomes virtually impossible (Beasley-Murray, 2003).

The standard provides for three different kinds of hedges (para. 137):

- Fair value hedge – where the risk hedged is a possible change in the fair value of a recognised asset and liability that will affect the income statement. This brings about the changing of an important rule of accounting for financial instruments if hedging did not apply. Assets that would have been carried at amortised cost or assets that would have been stated at fair value but with gains and losses accounted for in

equity are all carried at fair value with gains and losses recognised in the income statement.

- Cashflow hedge – hedging possible changes in future cashflows associated either with a recognised asset or liability or with a forecasted transaction that will affect the income statement. This again changes the rules by allowing fair-value changes of derivatives to be accounted for in equity.
- Thirdly, there are hedges of a net investment in a foreign entity. The rules of IAS 21 still apply, but are broadened by the application of IAS 39.

2.3.1.2 Macro hedging and hedging relationships

The hedging section of IAS 39 does create some challenges, for example the hedging of portfolios and macro hedging. The two are treated differently. The standard explains that a hedged item could be either a single asset, liability, firm commitment or forecasted transaction or a group of assets, liabilities, firm commitments, or forecasted transactions with similar risk characteristics. In the latter case, however, the change in fair value attributable to the hedged risk for each individual item in the group will be expected to be approximately proportional to the overall change in the fair value attributable to the hedged risk of the group (paras 128–32). This only means that companies will have to define and hedge their portfolios much more narrowly (Beasley-Murray, 2003). A company holding a portfolio of FTSE 100 shares (classified as available-for-sale with equity accounting) can economically create an almost perfect hedge by purchasing put options on these shares. However, because individual shares will decrease and others will increase, the portfolio cannot be classified as a hedged item. This will result in fair-value changes on the options being taken directly to the income statement whilst changes in the shares will be deferred to equity. This could result in income statement volatility.

Macro hedging is a concept in which the treasury function is responsible for determining the net exposure of the enterprise and hedging this exposure with one or more hedging instruments. IAS 39 does not allow this kind of hedging, as hedge effectiveness has to be assessed by comparing the change in value or cashflow of a hedging instrument and a hedged item. It clearly states that comparing a hedging instrument to an overall net position rather than a hedged item does not qualify for hedge accounting (para. 133). Furthermore, in order to hedge effectively under IAS 39, more external hedging transactions will have to be entered into. The standard presents an alternative in that if a company has a net asset position of 10, it can select a specific asset (or similar assets) with the value of 10 and designate this as the hedged item (para. 133). PricewaterhouseCoopers, however, points out that in this case, the company will on a daily basis have to ensure that the net asset position still exists in order to monitor hedge effectiveness and, if it does not, the company will have to redesignate (PricewaterhouseCoopers, 1999). Another possibility is found in para. 143, where interest rate risk may be hedged by allowing hedge effectiveness to be assessed by preparing a maturity schedule that shows a reduction of all or a part of the risk exposure if, for each maturity strip resulting from aggregating elements, the net position can be associated with an asset or liability giving rise to such net exposure and correlation can be assessed against that asset or liability.

Another anomaly is found in the fact that the standard does not allow a written option as a hedging instrument (except if hedging a purchased option), as it sees a written option as increasing and not reducing risk. This is not always true – as a written option taken out as a hedge of securities (shares held in another company) owned by the enterprise could be a very effective hedge (Schweser, 2002).

2.3.1.3 Internal vs. external hedging

The standard states that for hedge accounting purposes only derivatives that involve a party external to the group can be designated as hedging instruments (para. 134). This is because internal hedges will be eliminated on consolidation. This has the effect that several external hedging transactions will have to be undertaken for hedge accounting (and not economic) purposes only in order to be useful in group reporting (Beasley-Murray, 2003; Bird, 1999; Taylor, 2001:16-18, Chan, 2002; Lidbark, 2003; Keeping, 2003(b):15-20; Freudmann, 2003:37; Michell, 2002).

Individual divisions will have to be able to hedge their exposures individually (per asset/liability or narrow similar group) (para. 134). This could require corporate centralised treasuries to make vital and expensive changes in the way they operate and the strategies implemented, especially in those where internal hedging has always been part of day-to-day risk management strategy (Beasley-Murray, 2003; Bird, 1999; Taylor, 2001:16-18, Chan, 2002; Lidbark, 2003; Keeping, 2003(b):15-20; Freudmann, 2003: 37).

2.3.1.4 Hedge effectiveness

As far as hedge effectiveness is concerned, the standard provides two rules – the first is that (at inception and throughout the life of the hedge) the enterprise can expect changes in the fair value or cashflows of the hedged item to be almost fully offset by the changes in the fair value or cashflows of the hedging instrument, and the second is that the actual results are within a range of 80% to 125% (para. 146). This leaves two uncertainties not addressed by the standard. The first is the meaning of "almost fully". Many professionals argue that "almost fully" implies a much greater effectiveness than the 80–125 principle contained in the second condition (Keeping, 2003(b): 15–20;

PricewaterhouseCoopers, 1999). However, if a range of 80%–125% is acceptable as being effective, why should expectations of effectiveness be any higher or laid out more strictly? This should suggest that hedge accounting should be stopped even when it is clear to the enterprise that the actual result will not be outside the 80%–125% range (Keeping, 2003(b): 15–20). Another problematic issue is that there is no guidance as to whether or not the actual effectiveness should be assessed in each period or cumulatively over the life of the hedging relationship (Kawaller 2001; Keeping 2003(b): 15–20; Bird 1999). This is also not adequately dealt with in the implementation guidance, as can be seen in the Annexure to this chapter. As a hedging relationship should be designated for the entire life of the hedging instrument, and given the nature of short-term changes in the values of financial instruments due to temporary factors – often a political standard or something similar – one could interpret the standard as implying that effectiveness should be measured cumulatively, rather than in each period. However, based on the first condition stating that expectations of effectiveness should exist at inception and throughout the life of the hedge, a hedging relationship should cease if at any stage during the period it becomes more likely than not that the effectiveness will not be in the range of 80%–125% (Kawaller, 2001; Keeping, 2003(b):15-20; Miolo, 2000; Taylor, 2001:16-18; Nordgard, 2001; Newberg, 2001:14-15; Bird, 1999).

Hedging even relatively straightforward transactions could become very complex and the effects of hedging possibilities do change dramatically within the ambit of IAS 39. Management will have to produce documentation and strategies supporting the entire hedging cycle (paras 146–52), which will include criterion-testing in setting up a hedging relationship, possibly accounting for a change from an initial cashflow hedge to a fair-value hedge, and constantly testing for effectiveness (Beasley-Murray, 2003; Taylor,

2001:16-18; Chan, 2002; Nordgard, 2001; Lidbark, 2003; Kates, 2003:46; Freudmann, 2003:37; Michell, 2002). This will have to be done for individual hedging relationships.

2.3.2 Summary of requirements

2.3.2.1 Outline of structure

Later in this chapter some time will be spent in comparing IAS 39 with the US GAAP equivalent, FAS 133. The South African standard AC 133 (SAICA(a), 2002a) follows substantially all of the principles of IAS 39. The WRA Group (1999) did a study on system changes required by US treasuries in implementing FAS 133. In their report three key aspects of changes were identified. They are:

- systems should be able to match hedging relationships;
- systems should be able to "track and flag" transactions;
- systems should include a model for testing hedge effectiveness.

These three headings, combined with four additional factors listed below, will form the summary of the requirements set out by IAS 39 for hedge accounting. This will be supplemented by the implementation guidance in the form of an Annexure to this chapter – see Annexure 2. Hedge accounting forms a significant part of the standard. Due to the nature of hedge accounting (which includes the interaction between different financial instruments and measurement requirements for hedging relationships), the system requirements are more complex. Because of these complexities, the structure in which this section is presented in the dissertation differs somewhat from other system requirements sections in this chapter.

The four additional considerations mentioned above are:

- changes in the overall risk policy and approach (Miolo, 2000; Taylor, 2001: 16–18; Alby, 2001; Chan, 2002; Nordgard, 2001; CTM, 2001);
- more active involvement of senior management and specialists in order to structure certain transactions (Freudmann 2003: 37);
- system changes to accommodate measurements of hedge effectiveness and to improve mathematical efficiency (Beasley-Murray, 2003; Taylor, 2001: 16–18; Chan, 2002; Nordgard, 2001; Lidbark, 2003; Kates, 2003: 46; Freudmann, 2003: 37; Michell, 2002);
- a better audit trail and the generation of more explanatory evidence of transactions in order to improve disclosure and prove management intent where necessary (Chan, 2002).

2.3.2.2 System requirements

Match hedging relationships and track and flag transactions.

- The system should be able to establish and link the hedged item and the hedging instrument (Newberg, 2001: 14–15; Taylor, 2001: 16–18; Alby, 2001; Chan, 2002; Nordgard, 2001; Mueller, 2003; Freudmann, 2003: 37; Michell, 2002).
- In hedging relationships where only a part of the hedging instrument is used to hedge a specific risk designated to a specific hedged item and another part hedges a different risk linked to a different hedged item, the system should be able to establish and keep the connection (WRA Group, 1999).
- Should one part be sold or become ineffective, the system should be able to identify that part and commence with the appropriate accounting treatment – depending on the type of asset (Miolo, 2000; Taylor, 2001: 16–18; Nordgard, 2001; PricewaterhouseCoopers, 1999).

- Therefore not only should the system be linked to the accounting system, but asset classifications based on intent by management should be worked into this system per transaction (para. 10). This is necessary for tracking forecasted events that are hedged but because of recognition criteria are not in the accounting records as yet (WRA Group, 1999).
- When the cashflow hedge changes into a fair-value hedge, an enterprise's system should be able to pick this up, generate appropriate accounting entries and follow this relationship through to eventual derecognition. This following of the hedge cycle by identifying relationships and following them throughout the process is typically what is suggested by tracking and flagging capabilities (Newberg, 2001: 14–15; Taylor, 2001: 16–18; Alby, 2001; Chan, 2002; Nordgard, 2001; Mueller, 2003; Freudmann, 2003: 37; Michell, 2002; WRA Group, 1999).

2.3.2.3 Models for hedge effectiveness and mathematical efficiency

- IAS 39 suggests that treasury systems (now integrated with the accounting system) should be able to measure hedge effectiveness using models that are consistent with both the designation and objective of the hedge (para. 142) (Beasley-Murray, 2003; Taylor, 2001: 16–18; Chan, 2002; Nordgard, 2001; Lidbark, 2003; Kates, 2003: 46; Freudmann, 2003: 37; Michell, 2002).
- Movement per hedging relationship of both the hedged item and hedging instrument must be measured (paras 144, 142) and, together with other information, the models would have to be able to forecast the effectiveness of a hedge (para. 142) (Beasley-Murray, 2003; Miolo, 2000; Chan, 2002; Nordgard, 2001; Mueller, 2003; Lidbark, 2003; Keeping, 2003b: 15–20; Kates, 2003: 46; CTM, 2001; Michell, 2002).

- If a forecast indicates that a hedge is probably not being effective, it should be determined whether the model shows the hedge not being effective due to a short-term market movement or not, and to decide if the expectation of management is different and therefore the system will be overridden or not.
- The system should work within the parameters not only of IAS 39, but also of the risk management policy and hedging strategy that management has formulated (WRA Group, 1999). Where the net effect of transactions entered into exceeds the parameters of management's strategy, the system should pick this up (para. 142).

2.3.2.4 Risk policy and approach changes

There are a number of contributing factors that would encourage management to change their risk approach and policy:

- The first is the hedging criteria that now exclude the use of hedge accounting for transactions where it previously would have been allowed (par. 142).
- Secondly, the standard requires a detailed written hedge policy and strategy (para. 142) (Miolo, 2000; Taylor, 2001: 16–18; Alby, 2001; Chan, 2002; Nordgard, 2001; CTM, 2001).
- Thirdly, disclosure requirements (most of which were introduced through IAS 32 – Financial Instruments: Presentation and Disclosure) require the disclosure of risk management strategies and this may become a far more important consideration in investment decisions than was the case in the past (Beasley-Murray, 2003; Bird, 1999; Michell, 2002). If for example, a South African company (with ZAR as reporting currency) sells goods to an Indian company, but specifies payment in US dollars – because it prefers the exposure to USD – IAS 39 would require the derivative to be split from the sales contract and accounted for separately. Previously, revenue would

most probably have been recognised at the ZAR/USD spot rate with every sale – the exposure would have been invisible (PricewaterhouseCoopers, 1999). With IAS 39, the risk becomes highly visible and this would most probably increase the likelihood of the company hedging this transaction (PricewaterhouseCoopers, 1999).

2.3.2.5 Professional judgement and management's intent

IAS 39 requires professional judgement and the application of management's intent in the classification of non-hedging assets and liabilities as well as in determining hedging relationships (Macve, 2002; PricewaterhouseCoopers, 1999). Fair-value estimations, including the use of discount rates and adjustments (Taylor, 2001: 16–18; Chan, 2002; Nordgard, 2001; Orrell, 2002: 8–9; Mueller, 2003; Lidbark, 2003; Keeping, 2003a:15–20; Michell, 2002), the modelling of measuring effectiveness (Beasley-Murray, 2003; Taylor, 2001: 16–18; Chan, 2002; Nordgard, 2001; Lidbark, 2003; Kates, 2003: 46; Freudmann, 2003: 37; Michell, 2002) and the monitoring of new risk management policies and strategies (not mentioning the development of those strategies), are required by the standard (Miolo, 2000; Taylor, 2001:16-18; Alby, 2001; Chan, 2002; Nordgard, 2001; CTM 2001).

2.3.2.6 Audit trail and explanatory evidence of transactions

The standard requires documentation of not only a wide overall hedging strategy, but also of each hedging instrument, the related hedged item or transaction, the nature of the risk being hedged and the hedge effectiveness measurement procedures (para. 142) (Beasley-Murray, 2003; Miolo, 2000; Chan, 2002; Nordgard, 2001; Mueller, 2003; Lidbark, 2003; Keeping, 2003(b):15-20; Kates, 2003:46; CTM 2001; Michell, 2002). Even where an overall policy can be used due to the nature of the hedging, this will still leave

the auditor and management with a structured framework that can be used to measure and test transactions.

2.4 General issues

2.4.1 Disclosure requirements

The disclosure requirements of IAS 39 have mostly been preceded by IAS 32, except for the obvious requirement that fair value does not have to be disclosed in notes where assets are carried at fair value. IAS 39 also adds to the requirements of IAS 32.

The methods and assumptions in calculating fair value must be disclosed. The effect of the new disclosure requirements on policies and systems has been discussed in the section above. Because of the complexities in IAS 39 the disclosure of financial instruments and hedging-related activities might become one of the main focus areas of most big corporates. As stated already, significant changes in systems may be necessary to supply all the data necessary for complete disclosure under the combined IAS 32 and IAS 39 requirements (Miolo, 2000; Chan 2002; Beasley-Murray, 2003; Bird, 1999; Taylor 2001: 16–18; Chan, 2002; Nordgard, 2001; CTM, 2001; Freudmann, 2003: 37; Michell, 2002).

The risk strategies and policies followed will have to be disclosed in detail.

2.4.2 Comparison between IAS 39 and US GAAP

A comparison of IAS and US GAAP could be of some value, as IAS 39 was largely based on the equivalent SFAS 133, which is effective for periods beginning on or after 15 June 2000. Although SFAS 133 and IAS 39 are similar in most important instances, the US standard is more detailed. There are also several US standards that deal with

financial instruments (about seven) whilst IAS deals with these issues in two main standards – IAS 39 and IAS 32.

US GAAP does not leave the option to take gains and losses on available-for-sale assets to the income statement, but recognises them in equity – called other comprehensive income. In some way this would solve several technical difficulties that we experience in the implementation of IAS 39 (at least as far as system capabilities are concerned), but recognising these differences in equity rather than the income statement creates several of the principal accounting problems that we experience under IAS.

Derecognition of assets and liabilities is treated the same in principle, except for one difference. The US standard requires legal isolation of an asset before it is derecognised, whilst IAS follows a control approach. Legal isolation is not a requirement for derecognition in IAS. Here the substance-over-form approach in accounting is followed more purely in IAS. As far as hedging is concerned, there are two very important differences (detail excluded). In IAS, a deferred gain/loss recognised in equity for a cashflow hedge is recognised as part of the initial measurement of the relevant asset or liability. This is not done under US GAAP. The gains/losses are recognised in equity and are transferred from equity to the income statement. Another major difference is that US GAAP treats hedges of firm commitments as fair-value hedges where IAS treats these hedges as cashflow hedges.

As far as hedging by using a non-derivative financial instrument is concerned, US GAAP is even more restrictive than IAS, as it only permits these hedges of foreign currency risk for a net investment in a foreign currency or a fair-value hedge of a unrecognised firm commitment in a foreign currency. IAS allows these instruments to be used as hedges

for most foreign-currency hedges. The restrictiveness of SFAS 133 as far as foreign-currency risks are concerned is even more evident from the PricewaterhouseCoopers (1999) list of assets that will qualify as hedged items under IAS but not under US GAAP, which are:

- a non-financial asset;
- a highly probable purchase or sale of a financial asset;
- a commitment or highly probable purchase of a subsidiary in a business combination or an associate;
- future receipts or payments of foreign-currency-denominated interest on a recognised asset or liability.

Unlike US GAAP, IAS does not restrict the type of risks that can be hedged.

A further important difference between IAS 39 and SFAS 133 is that although IAS 39 is very complex and costly to implement in a big group treasury structure, it is still more flexible than its US counterpart. US GAAP requires the enterprise with the risk to be a party to the hedged transaction, whilst IAS merely requires that a one-to-one hedging relationship must exist at a group level.

2.5 Conclusion

In this chapter, the accounting and possible other business requirements (both specific and implied) due to the adoption of IAS 39 (read in conjunction with the relevant implementation guidance) have been identified and listed for all major areas from the standard. This has been done by way of an analytical study of the standard. These requirements have been summarised in the first column of the “matching table“ that can

be found in Annexure 3A. This summary also effectively serves as the conclusion for the work performed in this chapter.

2.6 The next chapter

This chapter has concentrated on the accounting theory side of financial instruments, but has still effectively illustrated certain very important practical implications that IAS 39 will have on the accounting systems of larger enterprises and those dealing in complex financial instruments.

In the next chapter the effect of the Internet on the way in which transactions in a treasury system are executed will be explored. With this, the effect on the information needed to generate a transaction and the outputs (typically an audit trail) generated by the system will be studied.

The role of the treasurer and changes in that role will be explored. The e-treasurer as a risk manager and integral part of the financial management team, the disappearing back office (at least in its current format) and changing front office will all be dealt with in Chapter 3.

CHAPTER 3

IDENTIFICATION OF CHANGE FACTORS

3.1 Introduction and objective

It should be reiterated that the overall objective of this dissertation is to design a workable implementation of an e-treasury around the fixed requirements set out by IAS 39. This chapter aims to provide greater insight into the more technical minimum requirements (referred to as "change factors" in the rest of this dissertation) that should be present for a treasury function to be classified as an integrated e-treasury rather than a traditional treasury function. It further aims to provide greater clarity on the impact an e-treasury will have on the organisation, regardless of the model used to implement it. It is important to be aware of this impact and the minimum change factors for integration, as these aspects have to be considered in suggesting a workable implementation model. The chapter does not deal with IAS 39 requirements.

As part of the research objective formulated in Chapter 1 it was stated that this chapter would aim to identify, based on a literature study, the required changes that take place within a treasury environment when changing from a traditional treasury function to an integrated Internet-based treasury function. In order to be able to identify a core set of minimum change factors as described in this section of the research objective, four important theoretical issues will be addressed, namely:

- a sketch of the traditional treasury function or the recognised status quo from which the move will come;
- a discussion on the advantages and likelihood of the Internet being used as the platform for an integrated treasury function, and through this motivating the

assumption used in this dissertation that the integrated treasury function is Internet-based;

- the technical and business aspects of the move towards an integrated e-treasury and the factors to be considered in reaching the end objective; and
- the minimum change factors that a treasury function should adhere to in order to be classified as a fully integrated Internet-based e-treasury.

The layout of the chapter is set out to in such a way that an explanation is provided on where most enterprises are at present (the traditional treasury), why a change is imminent (the advantages provided by the Internet) and which changes are most likely to take place. Because these changes are anticipated and have not taken place as yet, the views of a number of industry experts are listed under the subsections on how they see the changes taking place. From these, a concluding summary is provided on the most probable changes.

Some of the effects of an e-treasury environment that were referred to in the introductory chapter were as follows:

- E-business could dominate all spheres of corporates – implying that using the Internet will save on time and cost and will be necessary if the enterprise plan on staying competitive, as the short discussion on banks will indicate later in this chapter (Schmidt, 1997).
- The move towards Internet treasuries will not entail a small systems change, but should lead to the restructuring of the whole treasury environment. Characterised by fewer people, more transactions, linked accounts, direct purchasing, selling and payment systems not only of consumables, but also of financial instruments used in

hedging (Schmidt, 1997; Poynter, 1997; Wanniger, 2000; Oracle report, 2000 ; Forster, 2000). The balance of risks will change and so will the role of corporate treasurers. It is foreseeable that this will have a direct impact on the accounting function (PricewaterhouseCoopers, 2000: 1, 5, 6). Tests to determine intent per transaction could become more difficult than ever.

- Whilst all of this is happening, corporates will have to implement the complex criteria of IAS 39.

In providing a greater supporting overview of the four main aspects dealt with in this chapter, the related recent movements in the international banking arena and a survey by the AFP (Association for Financial Professionals, 2000) research department will be studied briefly.

3.2 Defining the traditional treasury function

Defining the core role of a treasury function could be a starting point in defining the treasury. In most instances, treasuries could be supporting cost centres for managing cash and risks through hedging or they could have a limited profit centre exposure (this is found in risk appetising enterprises where trading for profit is allowed) (ACT, 2000a). Coje Schmidt, founder of EuroCash Ltd, writes the following on this topic: “The best definition of the unique services a treasurer provides is still making sure the right amount of money, of the right type, is in the right place at the right time at an acceptable cost and risk“ (Schmidt, 1997).

Currently corporate treasuries are still divided into a front office (where deals take place), a middle office (normally the risk management function) and a back office (where transactions are processed and designed into a format useable to the accounting

department) (ACT Manual VI, 2000). Much of the resources allocated to treasuries is invested in administrative functions, such as collecting bank statements, entering data into a spreadsheet to calculate the money available, getting data from other departments to determine the need for cash and entering this into the same spreadsheet (Schmidt 1997). Movement of cash is then planned and decisions are made as to how to deal with surplus funds. Schmidt argues that this data collection, data entry, data processing and data output (all back office functions) will "be almost totally eliminated" (Schmidt, 1997).

It is well known in the industry that a great deal of the technology involved in the corporate treasury system is made out of stand-alone internal systems – like spreadsheets (Schmidt, 1997). In the article *Internet Integration: The Holy Grail for Enterprise Treasury Management?* the author, Kiran Natarajan, argues that most industry information focuses on the business perspective where current treasuries are concerned, instead of finding a balance between the business perspective and the technology perspective. Natarajan defines this business perspective as consisting of enterprise treasury management, supported by (Natarajan, 2000):

- enterprise transaction management (ETM) – the handling of the different financial instruments;
- enterprise risk management – controlling and monitoring ETM;
- enterprise cash management – to sustain commercial operations.

Defining the role of the present treasury function in this way, Natarajan argues that these functions will soon be Internet-based and this will lead to integration of the different treasury functions and necessitate the move to the technology perspective (Natarajan, 2000).

In further defining the present-day treasury function, Richard Reaburn of KPMG states that “best in class“ companies apply a model of treasury that corresponds to “good practice“. Good practice can loosely be defined as the governing rules and methods applied through treasuries that were established through extensive experience in the managing of treasuries (Reaburn, 2000).

Reaburn lists the following as elements of established good practice:

- the board-approved objectives, policies, risk appetite and control framework for treasuries;
- the defined balance of cost and profit centre elements;
- the value-adding treasury function of risk management.

Treasuries are typically organised as a centralised function. It is, however, acknowledged that removing responsibilities from operating businesses brings disadvantages. Reaburn stresses that the good-practice approach, implemented wrongly, can lead to what he calls a “black box“ treasury – where the necessary links between treasury and businesses do not exist and poor communication is at the order of the day.

In summary, we can identify a few characteristics that are true for the present-day treasury function:

- Treasuries are divided in three traditional parts – front, middle and back office. This suggests that treasuries still have a huge amount of administration work in data input, processing and output with a fair deal of dependency on manual data from other departments (ACT, 2000: 11.3–11.23).

- Successful corporate treasuries follow a good-practice approach, which includes a definite policy and procedure manual approved at the highest level of the enterprise (Reaburn, 2000).
- Later in this chapter (and it is value-adding to mention it here already) it will also be stressed that current treasuries are not fully integrated – especially as far as operational systems and software are concerned (Nolan, 2000).
- Treasuries have a dual role of managing cash for operations and managing risk through hedging instruments (ACT, 2000).

These traditional treasury model characteristics made it easy for accountants to manage the information output they needed from the back office where the back office had a dedicated accountant. However, it should be mentioned that information needed on transactions regarding financial instruments was much less detailed than the information required by IAS 39 (PricewaterhouseCoopers, 2000). And in the light of a changing treasury environment where the back office could very well disappear and the Internet becomes the backbone of all treasury operations with a possibility of on-line accounting system integration, we could be sketching the auditors' worst nightmare.

3.3 The role of the Internet

So how can we be sure that e-treasuries in the corporate sector will ever take off as a viable alternative to the current tested and proved treasury system? Joseph Lowery suggests that one merely has to investigate the advantages of Internet, intranet and extranet systems to realise that they could have huge savings on two vital resources of any company – time and money (Lowery, 1998: 4–6, 13). And if this is so, are doubts about the effectiveness outweighed by the surety of efficiency? In this section, the Internet as a base for the new e-treasurer will be examined – this includes assessing the advantages of the Internet, how the banking sector has realised that vital role of

e-business and a study of a number of statistics on the use of the Internet in the financial market.

Communication technology now allows for real-time information to be available from banks and from other business segments not only in an enterprise's own building, but also worldwide (Lowery, 1998: 3, 7–12). These tools include modems, networks and the Internet. Large quantities of data can easily and cheaply be stored and accessed (Schmidt, 1997). As Schmidt puts it: "There is no technical reason for treasurers to work with old information."

To determine the value of the Internet, it will be helpful to first look at the way business processes are moving. Peter Nolan states in his article *Killer Apps – The Treasur-e Impact* (2000) a few current developments in the business organisation. He lists the following:

- There is a trend to centralise finance functions through enterprise resource planning solutions and the capabilities of digital technologies.
- Corporate treasury teams are getting smaller and the downsizing will continue. This places strain on the internal controls.
- Organisation size has a determining impact on the degree of its treasury expertise and experience. Only larger organisations will have dedicated treasury experts.
- In order to concentrate internal management on core business, treasury outsourcing is increasing and this trend will continue.

Looking at a broader picture, Ken Wood sets out seven rules in his article *Rules for e-Business in the 21st Century* (1999) that e-business (and this includes e-treasuries) will have to keep in mind:

Rule 1: Service will eclipse products. Wood argues that companies that provide more services on line (like detailed product features, delivery schedules and inventory available) will win more customers, even if the price of the product is slightly higher than that of the competition.

Rule 2: Demand drives production. Buyers are in control as they have up-to-the-minute market information. The supply chain will therefore have to be quicker and react in real time. Wood argues that the same will apply to treasuries as they move to real-time cash management – the batch environment will make place for real-time processing.

Rule 3: Pricing matches market conditions. There is a growing tend to bid on goods and services via the Internet, and thereby obtaining supplies from the lowest bidder, rather than from contracted suppliers.

Rule 4: Interconnectivity is the key. Internal systems are integrated in order for treasuries to obtain up-to-the-minute information on the cash needs of the different business functions. It is argued that the next logical step will be the integration with external partners. A real-time value chain can be established from supplier to eventual delivery to the customer.

Rule 5: Trading partners become more random. Random customers via e-commerce will become the norm. This increases risk – especially credit and security risks. In order to eliminate this, technology such as digital certificates is becoming more advanced and of higher importance. It can only be a matter of time before the advantages far outweigh the risks (Lowery, 1998: 17, 20).

Rule 6: Financial structures flex. A rapid increase in business partners combined with increased speed will demand a more flexible corporate finance structure. Investment

strategies must be of the sort that will ensure that the enterprise has the capital to nourish rapid growth. If not, the enterprise may well be losing big market share to its e-ready competitors.

Rule 7: Treasury moves to real time. Money markets will be time flexible and global. Treasuries will have to have immediate information on important happenings (these types of service already exist through the Internet, fax and even WAP cellular phone technology). Corporates will need banks that can support this real-time mode in which they will be functioning.

Wood asks a few questions that will be explored later in this dissertation – such as how this dynamic risk will be managed, how hedging of positions will take place in such an environment, how an enterprise will arbitrage and will match investments with predicted outflows (Wood, 1999). The answers to these questions could all lie in the workings of e-business and electronic risk management. It will be impossible to run an effective on-line system from the treasury function to the money market if the internal system is not integrated with the treasury system. An important part of this internal integration will be the accounting system (Oracle report, 2000; Forster, 2000).

Rules 1–7 above deal with the way business and the business environment and trends are changing. To summarise, buyers are taking control of the market – more information on a real-time basis makes it possible for the customer to choose the supplier that offers the best service in the shortest time at the best rate. As more and more suppliers adapt to these changes in the market place, those that do not, could be classed out of the market (Power, 2001: 24–5). In this process of adapting to change, suppliers will have to ensure that they offer the best service packages at competitive rates and as fast as

possible, as customers can in virtually no time click on their computer and find another supplier (Power, 2001: 24–5).

To offer the best service packages in real time, suppliers will have to be fully integrated. The pressure on them to achieve this at the lowest cost may well increase and change risk in such a way that a number of suppliers fail to make the cut. Assuming that investors, aware of these changing risks, place increasing pressure on companies to have up-to-the-minute financial information and analysis, it will require entities to have an accounting system (compliant with accounting standards) that could be updated instantly.

Based on these arguments, the study now moves to the support and advantages that the Internet can deliver to the changing business environment. After examining these advantages and comparing them with the needs of the new business environment, the possibility that the treasury function of the future will be Internet-based can be assessed.

In his article *Cash Management in the e-Commerce Era* (2000), Norbert Wanniger of Deutsche Bank states five efficiency benefits that the Internet has to offer. They are:

- easy accessibility to services – software for applications is server-based and therefore easily accessed from any spot, provided a browser is available;
- cheap and easy implementation – there will especially be a lot of administrative savings;
- easy operation – browsers are mostly point-and-click menu driven;
- cheaper communication – this is especially important between treasuries and the subsidiaries of the company;

- application service providers – these host software services on the Internet and are particularly suited for certain finance functions such as treasury management and accounting.

Together with this, it should be noted that the Internet provides for fewer people, is much faster than traditional systems and makes total system integration a possibility (Lowery, 1998: 3, 7–12; Langford-Wood, 2001: 149–55). Though Wanninger did not mention these as part of the advantages, it seems as if they were implied or should be implied and included.

On the negative side, counterparty risk (which could also be called credit risk) as well as security issues are mentioned. This is merely an issue because of the systems implemented by most companies to secure Internet use and not because the necessary security software does not exist (Lowery, 1998: 17–25). The more dependent companies become on the Internet, the more will they realise that they will have to secure their dealings and will they invest in the necessary security applications (Lowery, 1998: 17–25).

There are other advantages to the Internet. In the article *Treasury Management and the Use of the Internet,* William Forster of IBM explains the resilience of the Internet by using a recent earthquake in Turkey as an example. During the immediate aftermath, most international telephone lines as well as cellular communication broke down. But his Internet connection carried on functioning and was the only means to communicate with the outside world (Forster, 2000). Forster goes on to explain how remarkable the speed of the communication was during this time using the Internet.

Public perception of the Internet is changing rapidly. Two years ago Internet banking by individuals was still in a developmental stage; now it is an everyday occurrence and banks are compared by the average person on the way their system makes it easier for him or her to bank – any time of the day (Bedell, 2001: 14–15; Nolan, 2000; Boyd, 1998). It has moved from a toy of the elite to an everyday business medium – and if this is true for individuals, how much truer and more applicable it is to corporates (Lowery, 1998: 3–13).

In a 1999 survey by J and W Associates of electronic FX trading systems for corporates and of electronic banking systems, around one-third of providers claimed some degree of Internet capability. Forster explains further that on systems designed for banks almost all of the development plans incorporate the Internet. Better penetration of a bigger market at lower cost is a direct outflow of using the Internet correctly. And as Forster puts it, "typically, revolution occurs when someone develops something that extracts cost from services" (Forster, 2000).

Forster uses a traditional ratio to explain the cost structure of the economics of the Internet that has been used in several publications and can effectively be used to illustrate why Internet-based working is inevitable:

Physical outlet: 100

Telephone: 10

PC based: 1

Internet-based: 0.1 (Forster, 2000)

As part of a survey, Forster asked an audience of treasurers where they would like bank service providers to concentrate. The answers are briefly listed below:

- Quicker, better access to information
- Personalised information
- A structured payments environment to include remittance information
- Easier channels to open accounts
- Multi-bank relationships
- Additional transactions
- Better balance reporting
- Real-time, same-format, bank information (the SWIFT system was seen as inflexible)
- Remote access security
- Create a validation/learning environment
- Compatibility with internal MIS and accounting systems (Forster, 2000).

The Internet can be seen as the one medium that can make all of this possible – especially the last item. This is also where the biggest challenge will lie – as accounting is no longer mere debits and credits that can be generated by simple transaction codes – if it ever was.

It is most probable that the Internet is here to stay. The banking industry, and this industry is in practice very closely related to any corporate treasury function, has been on the forefront of e-changing (Nolan, 2000). As far as banking is concerned, there is a definite move towards consolidation (Nolan, 2000). Peter Nolan gives the example where a US treasurer issued a request for proposal for cash management services to six banks. By the time he completed the selection, three were no longer in existence as separate entities. It also became clear that larger banks are focusing on big business and that smaller enterprises have a far smaller choice in obtaining business services

(Nolan, 2000). Nolan explains that because larger banks bring the advantages on geographic spread, product capability and financial strength, corporates prefer to do business with them rather than with local specialists organised in smaller organisations.

It is suggested that the Internet, however, is changing this. The importance in choice over banking services will not so much be based on geographical spread and size, but on technical capability (Nolan, 2000). This supports the argument earlier in this chapter that the technical perspective will gain ground versus the business perspective. It therefore becomes clear that banks will have to adapt to the Internet-based e-revolution or in the long run (and this could be less than three years) perish. Smaller banks with less technical expertise are already feeling the burden, whilst large institutions with similar technical expertise will only feel it later, as the speed of the Internet-based technical perspective increases and the advantages of size and geographic spread becomes more irrelevant (Nolan, 2000).

Yves Bocquet (2000) of MPCT Solutions commented as follows on the role of banking: "While the Internet revolution gave birth to e-commerce, it also raised havoc in the established rules of competition within the banking industry, turning a century of old culture upside down, wreaking the barriers to entry in a historical protected area where only the nimblest will survive. There is no question that there will be banks tomorrow, the question is whether today's bank will be among that number."

3.4 The process of moving towards Internet-based e-treasuries

The advantages of using the Internet as a system base have now been sketched quite extensively. The question of how the move towards the Internet treasury will look has to

be examined. This move is based on the assumption that Internet-based treasury systems will in fact be implemented.

It has already been stated in the introductory chapter that the Internet will remove cost from the business processes whilst cutting down time (Langford-Wood, 2001: 149–55; Schmidt, 1997; Poynter, 1997, Wanniger, 2000). It was evident that, at least in the long run, this will coincide with integrating business systems (especially the accounting function) and this integration should lead to less personnel, less paper flow (where paper flow refers also to non-paper stand-alone computerised functions such as e-mail) and fewer visible outputs per transaction (Schmidt, 1997; Poynter, 1997; Wanniger, 2000). It was, however, envisaged by most sources that the treasurer will continue to have a role, albeit vastly different (Forster, 2000). The shift of focus would be towards risk management (and this includes operational risk) and away from time-consuming dealings via telephone and fax. Integrated cash management systems would be able to detect shortage of funds based on budgets compiled using preset management resource models (e.g. management resource planning systems) based on information from the sales system whilst immediately updating the accounting information (Oracle, 2000 ; Forster, 2000). It is suggested that payments will probably be made electronically and when these payments are due in foreign exchange the system will close out a deal by communicating with the systems of the different banks and arranging (via the two systems) the best foreign exchange quote. Human intervention will be necessary for certain bigger and more complex dealings, but day-to-day running will certainly change (Oracle, 2000 ; Forster, 2000). Foreign exchange trades do not only take place with banks via a web-based portal, but these systems are also capable of sending the information through to the treasury management system (Bedell, 2001: 14–15).

It can thus be said that the move towards the e-treasury will be one of cutting costs, integrating systems, and saving valuable time and money with far fewer people doing what they are accustomed to.

Richard Reaburn of KPMG (1988) states that the meaning of e-business for treasuries can be summarised in five points:

- Business processes become far more integrated and concentrated within an IT environment (here referring specifically to purchase-to-pay and quote-to-cash processes).
- Activities previously seen as critical for treasuries will be outsourced and this will lead to fewer treasury specialists working in the business centre.
- The speed with which information is provided will be much quicker and standards of format and quality relatively unknown in the past will be the order of the day.
- Decision-making will be based on shorter time scales.
- The successes (and therefore failures) of treasuries in adding value to the company will become much more transparent.

It has already been stressed that the technology focus will become vital in the move towards the Internet treasury function. Standardisation of available software through the Internet – and the possibilities of the Internet being used as a standard medium throughout the business, is endless (Wanniger, 2000).

It is a logical business rule that companies would have to take note that files used will have to be secure enough to handle the Internet. There is no doubt that security is seen as the one main restriction towards total Internet-based treasuries (Lowery, 1998: 17–

25, 342; Power, 2001: 110–11). It is therefore anticipated that the use of encrypted documents and digital signatures would become of vital importance in any corporate. The switch from traditional computer files to secured files should start immediately and be implemented prior to going Internet-based (Lowery, 1998: 17–25, 342; Power, 2001: 110–11).

Another important factor to consider in moving towards the Internet treasury function is that of business sector integration within different geographical business sectors. This does not imply that one central technology function has to be established – it merely implies that in a study such as this one consideration should be given to the way in which a company positions core parts of its technology systems and how these systems will be integrated with the other geographical locations and with other core systems situated elsewhere (it should be noted that in technology terms integration does not necessarily equalise centralisation, although the two often go hand in hand). Kiran Natarajan of Trema Treasury possibly states the core when saying, "Customers do not want to just webalise. They want to achieve Enterprise Treasury Management with the right technologies at the right points" (Natarajan, 2000).

As established earlier in this chapter, in the move towards the Internet treasury function there will be no place for traditional stand-alone systems (technically, they normally do not adhere to the standardisation requirements set for total integration) (Schmidt, 1997). Upgrading the standardised systems and software will most probably be very affordable as Internet downloads become more and more important as part of after-sale value-adding and competition in the Internet markets gain momentum. Consideration should further be given to the possibility that, in the move towards the Internet Treasury,

organisations could have to deal with customers that are very much virtual and that tap into the same integrated system that the treasury function finds itself in (Lowery, 1998: 3, 359–64). Treasuries would no longer lack a direct link to the core business function of an organisation except for being informed of what the cash requirements are and what the quantity of risk is that has to be hedged (and for what period of time). In an integrated system as envisaged in this dissertation, when a transaction is completed the integrated system is updated, the accounting is done and the cash need or surplus is immediately evident and has to be managed.

Natarajan places emphasis on three important factors when looking at the process of changing the treasury systems – firstly the need for future-friendly technology architecture and business process design, secondly setting a framework for Internet Integration and lastly establishing an extended straight-through processing system (better known as a "eSTP") (Natajaran, 2000).

Summarising the above (still referring to Natarajan), the design should be able to cope with enterprises with high-volume affiliates that require automatic interfacing for e.g. enterprise resource planning systems. The architecture should eliminate the need for stand-alone systems and a foundation should be laid for automatic exception messaging between counterparties and direct data exchange between compliant standardised systems. As far as the framework is concerned, the system according to Natarajan should have Internet features well mapped to business processes, apply appropriate technologies at appropriate locations and be based on a standard that is compliant for integration, secure for participation and reliable for execution. Lastly, the goal should be to achieve an eSTP where all treasury affiliates have access to the same corporate data – on a 24/7/365 basis. Geographical data will be captured at the source, making the

transaction flow much quicker and more efficient. The advantages of an eSTP have already been sufficiently covered in the outline of the advantages of an Internet-based system earlier in this chapter.

The article of Natarajan (referred to in the last paragraph) sets an important base for moving towards integration. This does unfortunately not examine the impact of this integration on the output of data necessary for accounting purposes – an issue that will be addressed in detail in this dissertation.

Michael J. Ryan of KPMG highlights in an article for Scotiabank (Scotiabanks Value Added Quarterly, 1998) a few other aspects of the Internet treasury function move. Ryan agrees that in designing the treasury system, the group should include marketing and sales staff, together with the treasury management team. But he stresses three important factors that have to be examined when moving towards the Internet treasury function:

- How will transactions be taxed, and how will this uncertainty be treated in the financial statements?
- How will security be managed (he also suggests the use of digital certificates) and how will an audit trail be established?
- The calculation of return on investment during this changing phase should take into account competitive factors (such as the loss of possible sales when not using an Internet-based integrated system) and the learning curve of staff that the introduction of e-commerce entails. He therefore suggests a deviation from the traditional ROI calculation for this period.

It will be extremely difficult to calculate the advantages of implementing such a system in the long or even medium term, but the qualitative factors alone should be enough to be convincing. Initially an enterprise should merely calculate the immediate difference between possible running costs under the new system and the cost of running the traditional treasury function and then evaluate the time it will take for this difference to cover the initial investment. As enterprises will be implementing an integrated system with benefits to several business functions, only a portion of the cost would be attributable to the treasury function. On the other hand, a company can discount total future savings and additional inflows and profits due to the new system and evaluate this in light of the initial and additional costs and determine the monetary advantage of the integrated system for the entire enterprise (Lowery, 1998: 27–37).

This section of the discussion on the move towards e-treasuries concludes with a quote from *Web-ifying Treasury Systems*, a report by the World Research Advisory:

"Goldman Sachs predicts that by 2003, more than 90% of business applications sold will use an Internet architecture, phasing out many client-server architectures. The web browser will be a low cost method of linking users worldwide. Front-end browsers make information accessible while back-end is ready for new technologies.

The evolution of treasury systems to web based formats enables more centralised systems, which support different regions, allow global affiliates and subsidiaries access to a global database, and centralise treasury management and data transfers. Treasury technology has come a long way from the traditional spreadsheet analysis to automated and integrated systems."

The advantages and the reasons for corporates to move towards an Internet-based treasury system and the move itself were examined, then the important features and possible costs involved were looked at and now we are left with the last important issue – how will this new treasury look and operate and what will the role be of the new e-treasurer within the organisation?

3.5 The new Internet treasury function and the role of the e-treasurer

The impact of the new software, integration and the workings of treasury in general will have an impact on accounting and auditing. According to Coje Schmidt, founder and MD of EuroCash Ltd, one of the most important characteristics of the new treasury function will be that the treasury department will no longer be part of the handling process of payments and receipts. When sale orders are input into the sales ledger, it will automatically, or rather electronically, update the treasury management system. The same goes for payments – here an entry into the system indicating that goods have been received will be like writing out a cheque for payment. The treasurer will already in his or her system have all the information needed to complete the payment (amount, due date, currency, counterparty and counterparty bank detail) (Schmidt, 1997).

Schmidt predicts that in the banking sector the number of independent banks will reduce by 90% in the next five years, due to failure to invest resources necessary to provide large-scale transaction-processing at low cost. If his prediction is correct, it could be a logical indication that corporates with e-treasury capabilities will expect banks they deal with to be up to date in the handling of their transactions in time and without delays. Schmidt further states that he believes that both transactional aspects of treasuries as well as most decision-making functions will be handled by integrated software (Schmidt, 1997). This is not far fetched at all when examining the software already in existence.

In keeping with the new-look treasury function, it may be a good time to refer back to Ken Wood's seven rules discussed earlier in this chapter and specifically rule 7 – treasuries move to real-time. This specific challenge will be discussed in Chapter 4 of this dissertation, where the challenges that real-time transacting creates in the hedging environment will be explored. It is further important to remember that the treasury environment has been a very dynamic one even without the Internet coming into play, due to the velocity of financial assets being traded, new instruments introduced and the nature of risks (PricewaterhouseCoopers, 1999). In most corporates, the operational risk generated by the ever-changing environment is very difficult to address using traditional methods. Therefore, the velocity of transactions and the time span in which the e-treasury will have to operate could possibly lead to organisations not being able to handle the risk accompanied by this change without changing the tools and the skills that currently exist (Schmidt, 1997; Nolan, 2000; ACT Manual VI, 2000; Bocquet, 2000).

In his article from August 1998 *Corporate Treasurers Enters the Mice Age,* Iain Boyd, Internet Director of Global Treasury News, takes a brief look at these tools. He stresses among other things that Intranet-based capabilities will see accurate and effective performance of the cash management function with minimal user input. There will be automatic links to the web pages of the different banks (via the Internet) with immediate updating of account debits and credits and the disbursement activity. Accounting systems will be updated immediately as well and international banking will become an everyday event as time barriers are broken down. Boyd goes a step further than other treasury analysts and plays with the idea of preset coding of business rules and workflow concepts in order to make decision-making possible with no user input. Bank correspondence would be generated automatically and in-time and the same obviously

goes for management reports (Boyd, 1998). The possible use of intelligent systems with preset standards and coding capabilities could be one of the only ways in which the new treasury environment could be made compatible with IAS 39. Intent could be based on the factors surrounding a particular transaction and changes of intent will then have to be done by particular management intervention and tested by auditors on the basis of exception reports generated. But this is again an oversimplification of the process, as will become evident in the discussion of IAS 39 and its implications in the next chapter.

Peter Nolan of FTI agrees that intranet systems will increase efficiency because of easier communication, the possibility of in-house banking, updating and reporting on cash forecasting and less administration with bigger opportunity for strategic initiatives (Nolan, 2000). On-line trading is being done already and certain banks provide the facility for on-line foreign exchange trading (Investec, 2000). There is no reason why this will not be broadened to include other derivatives and bonds and securities at a later stage. Nolan refers to the capability of portals to facilitate the comparison of prices from multiple institutions and through auctioning conclude deals and fix prices. The use of market sites is another important e-development with treasury application (Nolan, 2000).

But what happens to the treasurer in this new environment? The phrase "e-treasurer" has already been coined by treasury experts (Bocquet 2000). But what or rather who is this e-treasurer and how will the new treasury specialist's role change in the new treasury environment? In order to answer this question, reference will be made to the point of view of two people – Yves Bocquet of mpct Solutions and the other Coje Schmidt of EuroCash.

In the article *E-Treasurer* (2000), Bocquet sees the e-treasurer as the "resident financial expert who designs the optimal infrastructure supporting the new production processes". According to Bocquet, the treasurer will have a new mighty bargaining power with banks, holding the future of a banker's success in his or her hands. Bocquet may go a bit far in explaining the power treasurers will have, but it is probable that the treasurer will be demanding faster and more efficient service from banks – if this can not be delivered, shifting to another bank can be swift and done with little hassle (Bocquet, 2000). Bocquet sees the bank again becoming a facilitator in the transformation and supply of goods. The treasurer is in charge with up-to-date financial information available and driving the financial supporting process for the rest of the enterprise. Banks will have to keep up with the needs of corporates – longer relationships should be formed based on the technology perspective and competencies. Certain corporates, having looked unsuccessfully for banking partners that can match their integrated system, have started their own financial institutions. Banks will therefore certainly have to get their act in order (Bocquet, 2000).

Schmidt follows a line of thought that is supported by the characteristics of the typical e-treasury. As the integrated system does more and more of the traditional treasurer's work, the treasurer will become a more strategic personality in the entire enterprise, as in Schmidt's words, the treasury function becomes an "internal bank handling funding and foreign exchange for all subsidiaries" (Schmidt, 1997).

Schmidt highlights a factor mentioned earlier in this chapter – that the treasurer will have to have new skills. This includes international tax knowledge, knowledge of the corporation's profit and loss situation at different locations and local rules regarding foreign exchange gains and losses and taxation for all foreign subsidiaries (Schmidt,

1997; Poynter, 1997; and Wanniger, 2000). Furthermore the treasurer will have to be fully informed on the happenings in other cycles in the firm, being part of the decision-making as far as integrating software (for example of the purchase department) is concerned. The treasurer will have to understand pricing structures and derivatives – according to Schmidt he or she has to be a skilled mathematician and a equal partner with the banks in this respect. Because of the international facet to e-treasury management, Schmidt argues that skills of negotiation and diplomacy will be expected of the treasurer – something the traditional treasurer never really mastered (Schmidt, 1997; Poynter, 1997; and Wanniger, 2000).

3.6 AFP survey results

As was stated at the beginning of the chapter, part of this summary incorporates a discussion on the results of market research done by the Association for Financial Professionals (AFP). The results were published in May 2000. The survey topic was "The Internet and the Changing Financial Services Market Place" (AFP, 2000).

The survey was sent to 7,622 members of the AFP, of whom 939 responded. Respondents were from all sizes of organisations. 52% of the respondents were from publicly held companies, 28% work at privately held companies and 20% work at non-profit or government-owned companies (AFP, 2000). The reason for including some of the more important findings in this chapter is so that a more practical rather than theoretical insight can be obtained in regard to the use of the Internet.

The survey found that obtaining information is still the dominant usage of the Internet, with 77% of respondents using the Internet to obtain information for cash management, 62% for investment management information, 53% for credit management information.

All in all, 84% of the respondents used the Internet for obtaining information about six types of financial services (the three named already as well as foreign exchange, capital market services and derivatives/hedging information services). In a similar survey by the AFP in October 1999, this figure was 77%. Seventy-two per cent of respondents communicate with service providers, whilst 43% (October 1999: 36%) report using the Internet to transact business and 20% select service providers. About two in three respondents communicate with service providers via the Internet for cash management and about 50% for credit and investment management. It was further noted that large companies were more likely to communicate with service providers than small companies. Half of respondents indicated that they would be very likely or somewhat likely to use the Internet as a one-stop shopping centre for all financial services.

Using the Internet to transact business for foreign exchange stands at 11%, but on asking if respondents are planning to do so in future (the next two years), the figure rises to 50%.

Almost all respondents indicated that they would use commercial banks for cash management, 82% would use them for credit, 62% for foreign exchange and 53% for investment management. Securities firms are used for investment management by 36% of respondents but less than 10% use insurance companies for any of the six financial services previously identified.

In concluding, the usage of the Internet for conducting financial services is increasing and some major increases were reported by this survey in just six months. Another important factor to note is the increased use of commercial banks that are also providing more and more of their services using the Internet. The AFP expects the trend of using

the Internet for a broad range of financial services to continue for the foreseeable future (AFP, 2000).

3.7 Conclusion

In conclusion, it is suggested that the treasurer will be more of a manager than an administrator and more managerial skills will be needed. The treasurer will have to have a more global outlook on the enterprise and its activities, with a strong background on especially the international activities. Not only is a new treasury envisaged, but a total evolution in the role of the treasurer and the type of person that would normally be associated with the treasury function.

In summarising the requirements and features of an Internet-based integrated treasury system, the following are the main change factors identified in order for a treasury system to be integrated within the context of this dissertation:

- The system should be Internet/web-based. Whether an integrated system has the Internet as its operation base or not should have little effect on any requirements of an accounting standard, as this is a technical IT aspect and not a business one. This change factor is therefore ignored for the objective of this dissertation.
- The internal business systems should be integrated. This includes an integrated cash management system, with orders placed, tracked, executed and accounted for in one system (Foster, 2000; Oracle, 2000; Bedell, 2001; Nolan, 2000; Poyter, 1997; Wanniger, 2000). This in fact implies that the traditional treasury function split of these factors is lost and suggests that the per-transaction intervention of specialised accountants is no longer present.
- The internal integration of business systems will lead to less personnel, less paper flow and fewer visible outputs per transaction (Poyter, 1997; Wanniger, 2000). This

includes the use of application service providers (Wanniger 2000) and the so-called e-treasurer (Schmidt, 1997).

- External integration will have to exist. This includes interconnectivity with customers and banks, with on-line information available to all external partners. Virtual integrated customers will tap into a company's systems, with transactions executed with more counterparties (Foster, 2000; Wood, 1999; Lowery, 1998: 3, 359–64).
- Treasuries will be real-time with real-time banking and markets. A shorter decision-making time will be required (Wood, 1999; Reaburn, 1988).
- Systems will be standardised with no stand-alone systems. Standards of format and quality will exist (Schmidt, 1997; Reaburn, 1988). This will include files to be changed to secured files (Lowery, 1998: 17, 20) and again, the move towards using application service providers, which would lead to compatible, standardised software, should be mentioned (Wanniger, 2000).

3.8 The next chapter

In the next chapter the requirements brought about by IAS 39 will be matched to the requirements for an integrated treasury system as proposed in this chapter. Where the change from a traditional treasury has an impact on meeting a specific requirement from IAS 39, this impact will be identified and a solution will be proposed.

CHAPTER 4

MATCHING AND SUGGESTED SOLUTIONS

4.1 Introduction and objective

In this chapter the last of the three main objectives set out in the Introduction will be addressed. This objective is to match the identified probable system changes (the "change factors") implied by the move towards the requirements set out in Chapter 3 (integration) with the possible requirements from IAS 39 that could be affected by such a system move (Chapter 2). A suggestion on how to accommodate the affected IAS 39 requirements within the new system is provided for each major system change.

4.2 Approach outline

The approach to reaching this final objective has five basic steps:

1. The change factors as set out in Chapter 3 are listed with a short summary of each factor.
2. The requirements of IAS 39 identified in Chapter 2 are listed. This list includes all the requirements identified, but similar requirements will not be repeated for different classes. For example, the need to split assets in different portfolios is mentioned in Chapter 2 as a requirement under each asset class, whereas in this chapter it will suffice to only mention it once.
3. From the conclusion reached in Chapter 3, each of the five change factors (one has no relevance to the stated objective, as will be discussed later) for a treasury function to be classified as an integrated Internet-based treasury function (as opposed to a traditional treasury function) is measured against every IAS 39 requirement. Where meeting a specific requirement could be affected by one of the five major changes to the treasury environment, this change factor is matched to the IAS 39 requirement.

Where a requirement of IAS 39 is unlikely to be affected by the type of treasury environment, this is identified.

4. For each of the matches, an explanation is provided on why it is assessed that the change in the treasury environment (change factor) could have an impact on meeting the IAS 39 requirement. Each of these explanations is classified as being a subdivision of the change factors identified.
5. A suggested solution on how to overcome the difficulty in implementing the IAS 39 requirement for each match is offered. This is done on a subdivision level (of the change factors) that is matched to a specific IAS 39 requirement.

The first four steps listed above are dealt with in Annexure 3A, referred to as the "matching table" in this dissertation. Annexure 3A is divided into three columns:

Column 1: Summary of requirements from IAS 39 (step 2 referred to above).

Column 2: The relevant change factors from Chapter 3 (step 1 referred to above).

Column 3: The explanation on why a change factor could have an impact on meeting the IAS 39 requirements (these explanations also referred to as subdivisions of the change factors).

Only a short reference name is quoted for each subdivision of a change factor listed in column 3 of Annexure 3A. In order for the reader to understand exactly what is implied by each subdivision or problem identified, Annexure 3B was added. Annexure 3B provides the reader with the following information:

Column 1: Each of the five main change factors are listed separately.

Column 2: A detailed explanation is provided for each subdivision that resorts under a specific change factor.

Column 3: For each of these explanations (under column 2), the short reference name that was used in column 3 of Annexure 3A is provided.

The last of the five steps referred to above is dealt with in the main text of this chapter, representing the conclusion of the study.

4.2.1 Step 1 - Identifying the change factors

In the conclusion to Chapter 3, six change factors for a treasury function to be classified as an integrated Internet-based system were identified. In the interest of clarity, for each of them, any subdivisions that fall under a specific change factor will be defined in the annexures.

The change factors were:

- The system should be Internet/Web based. Whether an integrated system has the Internet as its operation base or not should have little effect on any requirements of an accounting standard, as this is a technical IT aspect and not a business one. This requirement is therefore not considered in the rest of this chapter.
- The internal business systems should be integrated as described in Chapter 3. This includes an integrated cash management system, with orders placed, tracked, executed and accounted for in one system (Foster, 2000; Oracle, 2000; Bedell, 2001; Nolan, 2000; Poyter, 1997; Wanniger, 2000). This in fact implies that the traditional treasury function split of these factors is lost and suggests that the per-transaction intervention of specialised accountants is no longer present. For the purposes of the matching table presented below, this factor will be referred to as **internal systems integration**.
- The internal integration of business systems will lead to less personnel, less paper flow and fewer visible outputs per transaction (Poyter, 1997; Wanniger, 2000). This

includes the use of application service providers (Wanniger, 2000) and the so-called e-treasurer (Schmidt, 1997). For the purposes of the matching table presented below, this factor will be referred to as **internal business integration**.

- External integration will have to exist. This includes interconnectivity with customers and banks, with on-line information available to all external partners. Virtual integrated customers will tap into a company's systems, with transactions executed with more counterparties (Foster, 2000; Wood, 1999; Lowery, 1998: 3, 359-64). This will be referred to as **external integration**.
- Treasuries will be real-time with real-time banking and markets. A shorter decision-making time will be required (Wood, 1999; Reaburn, 1988). **Real-time decision-making** will be the term used to describe this factor in the matching table.
- Systems will be standardised with no stand-alone systems. Standards of format and quality will exist (Schmidt, 1997; Reaburn, 1988). This will include files to be changed to secured files (Lowery, 1998: 17, 20) and again, the move towards using application service providers, which would lead to compatible, standardised software, should be mentioned (Wanniger, 2000). For the purposes of the matching table, this will be referred to as **standardisation**.

4.2.2 Subdividing the change factors

The change factors referred to above have been subdivided in the last column of Annexure 3A (the matching table). It is specifically for these matched subdivided change factors that solutions (see below) are suggested. Annexure 3B supports Annexure 3A in that it provides broader explanations for each of the subdivided change factors. It is therefore proposed that should a greater understanding of a change factor's subdivisions be required, the reader refers to Annexure 3B.

4.2.3 The possible solutions

The solutions offered in this chapter to each match should only be interpreted as one possible solution. The objective is firstly to identify the possible problems that could be faced in attempting to comply with a specific requirement of IAS 39 in an integrated treasury environment. The second part, formulating a possible solution to this problem, will not deal with the technical changes required within a system. This is specifically excluded from the scope of this dissertation set out in chapter 1, which states that a detail analysis of the electronic and technical needs of treasury network systems will not be done. This type of analysis falls within the field of systems experts and, on evaluating the objectives of this research as set out earlier, it is clear that this type of analysis falls outside of the logical borders of these objectives.

As the matching and identifying of the IAS 39 requirements with the change factors in the treasury environment has not been attempted up to now, the possible solutions offered can not be source-based, and can at most be presented as logical deductions from the problems identified.

4.3 Steps 2, 3 and 4 - Applying the matching table (Annexure 3A)

Referring back to the objective stated in the first paragraph, the following has been achieved:

- The major requirements from IAS 39 have been listed.
- The major characteristics that differentiate a traditional treasury function from an integrated treasury function have been listed (the change factors).
- Where major change factors require subdivisions, these have been identified.

- Where it is deemed that a change factor could complicate compliance to IAS 39, which would not have been the case were a traditional treasury environment in place, that specific change factor has been identified for each affected IAS 39 requirement.

The outstanding objective is possible solutions to overcome the affect of the major change factors on complying with IAS 39. Using the matching table, it is possible to analyse which change factors have the most affect on the IAS 39 compliance.

Because of the way these effects have been grouped together, it will be possible to suggest one solution for a range of similar problems (that has a similar affect on several IAS 39 requirements), instead of having to find a solution for each IAS 39 requirement individually. But before such solutions can be formulated, it is important to analyse the problems. The following summary provides an idea of the impact of each of the change factors.

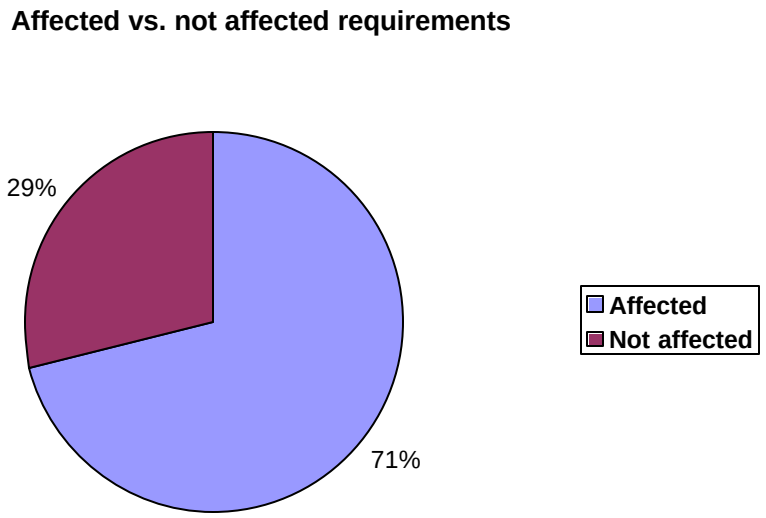
4.3.1 Analysis of the problems identified in the matching table

The following provides more insight into the information presented in Annexures 3A and 3B. It does not primarily address any of the specific stated objectives, but gives the reader an idea of the importance of the problems identified in the matching table. All calculations are based on the information presented in the matching table. Annexure 4 sets out the approach followed in compiling the diagrams below.

Affected requirements vs. not affected requirements

Of the IAS 39 requirements identified in the matching table, the following split was evident between affected requirements and not affected requirements (referred to as not

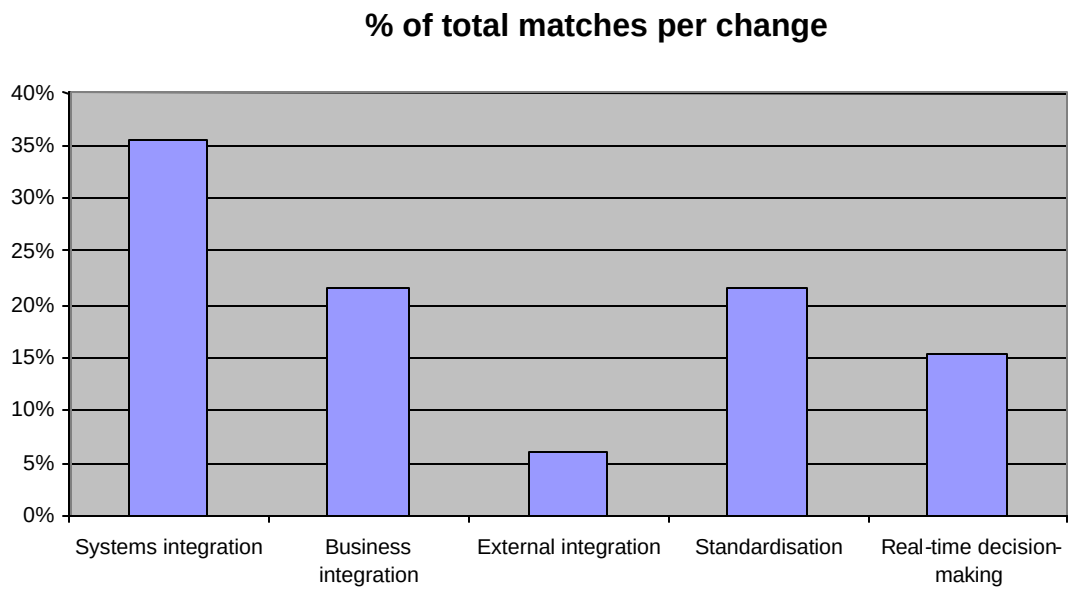
applicable in the table). It should be clear that most accounting requirements from IAS 39 would be affected by a change in the treasury system.



Concentration of change factors

Considering our initial five change factors, the percentage each of these made up of the total number of identified matches can be seen below[1]:: This split indicates that changes brought about by internal system integration has the greatest (in number) influence on applying IAS 39 requirements. The other four change factors were all significant as well.

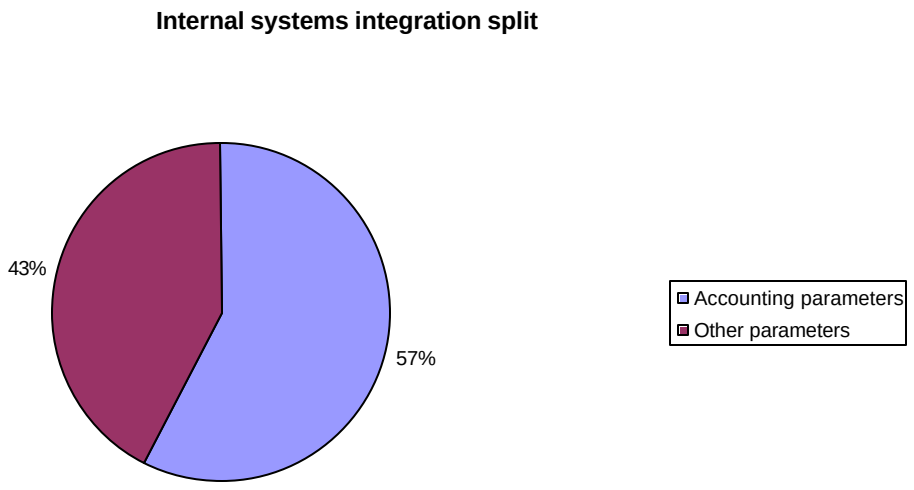
[1] Based on each subdivision entry being one match



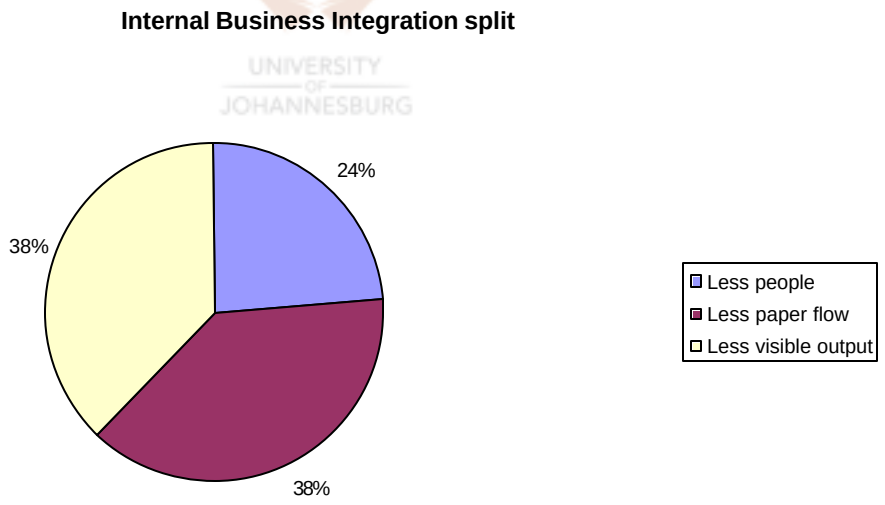
Analysing the subdivisions of each change factor

For each change factor, subdivisions were identified (Annexure 3A) and explained (Annexure 3B). The next few graphs indicate which of the subdivisions for internal and external integration had the greatest affect (in number) on applying IAS 39 requirements.

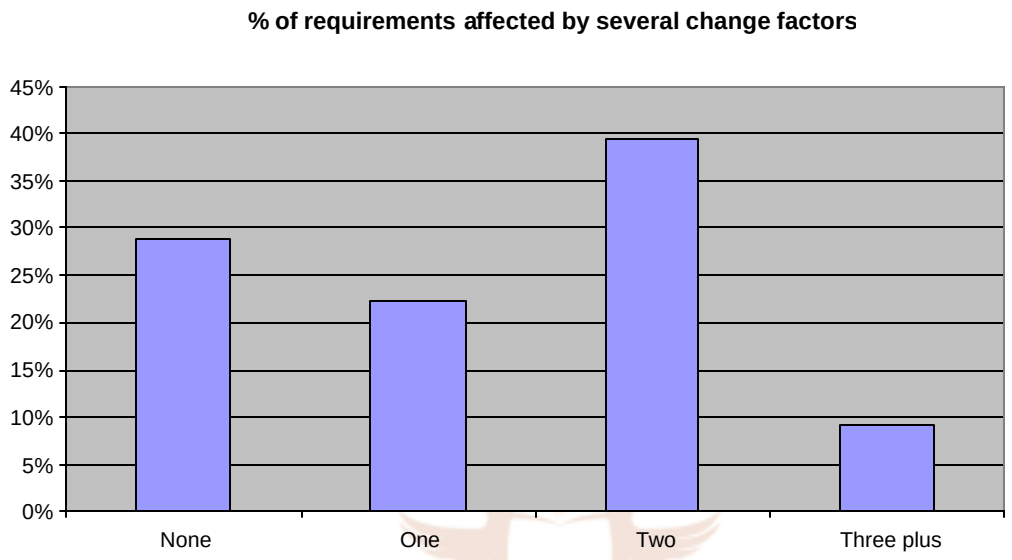
1. The split between specific subdivisions for Internal systems integration:



2. The split between specific subdivisions for internal business integration:



Referring to the affected requirements, the following split indicates the percentages of IAS 39 requirements that were affected by more than one change factor:[2]



Read in conjunction with the matching table, the analysis above clearly indicates that the change towards an integrated, Internet-based treasury system can have a severe impact on compliance with IAS 39 requirements.

From the analysis of the matching table in conjunction with Annexure 3B (subdivisions of the change factors) above it would seem that no one change factor can be dismissed as having an immaterial affect on the compliance possibilities of IAS 39. It is therefore appropriate to seek a solution for problems created by each one of the change factors and more importantly, each of the subdivisions of the change factors.

[2] Change factor here refers to a subdivision of a change factor

4.4 Solutions

The matching table (and its supporting annexure) is a valuable tool as it summarises similar challenges created from the integrated treasury system in complying with a range of IAS 39 requirements. It is therefore possible to concentrate on forming solutions for each of the major problems identified, as opposed to a separate solution for each of the IAS 39 requirements listed separately. The problems identified below refer to each of the specific subdivisions of the change factors as identified in the matching table (Annexure 3A) and explained in Annexure 3B.

Problem 1: Internal systems integration – inadequate accounting parameters

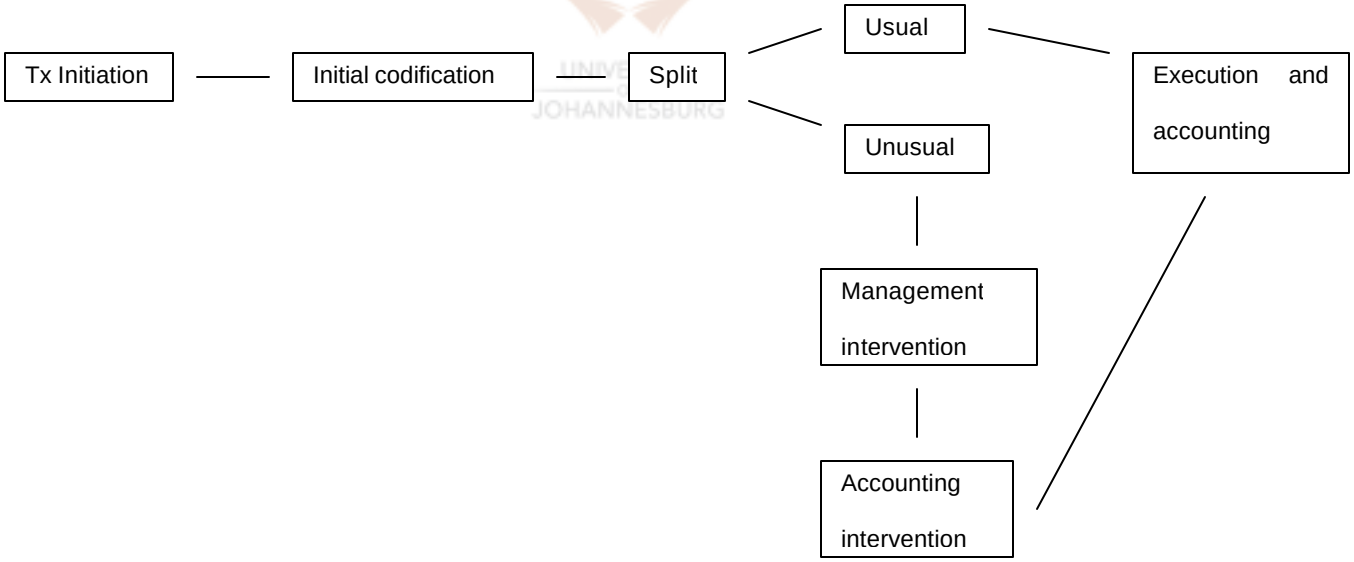
As the transaction, accounting and execution are initiated when the transaction is first entered into, there are no breaks in the process for specialised accountants or management to intervene. Therefore, the initiator might not have the knowledge to apply specialised accounting parameters.

Possible solution

- Transactions could be split between what will be classified as “usual“ and “unusual“ transactions. Transactions would have standard codes entered on initiation based on a number of system prompts. These codes would be used to indicate whether the transaction would require intervention or not.
- Transactions that do not fall within the parameters of everyday business will be referred to management for classification by means of an electronic trigger (possibly via an e-mail-based system). The management representative would then check the transaction and approve it. This approval should trigger a similar referral to the chief accountant, who would then populate (also by means of set rules) the accounting

treatment. After this second authorisation the transaction can revert back into the "mainstream" to be accounted for and executed based on the codification.

- This process will ensure that an entity will not lose the benefit of real-time no-intervention execution for regular predefined transactions, without compromising on IAS 39 compliance for more exotic transactions.
- In order to classify and codify assets an enterprise-wide policy and approach will have to be adopted and communicated to different sections of the enterprise. This will most probably have to be undertaken on a decentralised level, where different departments will be able to codify their transactions based on simple and understandable rules.



Problem 2: Internal system integration – inadequate other parameters

The initiator might not have the background knowledge to set initial parameters for intent or other required management decisions.

Possible solution

Simple as the possible solution above may seem, it will be possible to implement the exact same principle for this problem. In both instances, the challenge would be to build in a complete internal codification, which will be simple enough for the initiator to implement but still allow for all the options provided within IAS 39. The development of such a codification tool would be a study in itself, which would differ considerably depending on the type of the business.

Questions that would have to be addressed would be, for example:

- the series of codes that should be used to determine whether IAS 39 applies or not. This could be done when the transaction type is entered into.
- what would and would not be seen as regular-type (or usual) transactions, where regular-type transactions could for example include a list of transactions, such as creating a debtor or buying foreign exchange or bonds for trading purposes, while irregular transactions would be for example buying a bond and on a drop-down menu choosing "long term investment" as the reason for purchasing.

A simple example of a codification system for splitting usual and unusual transactions is provided below, where the date fields are used as primary coding.

Example: A company has a predetermined list of usual transactions. Anything falling outside of this is classified as unusual and requires electronic intervention on a number of coded fields by management. One such regular transaction is the purchase of goods from overseas suppliers. Foreign exchange is purchased on the payment date and the counterparty is paid immediately (the company does not therefore hold open forex positions – transaction 1 in the table below). The foreign currency exposure of the

creditor is hedged by the treasury as soon as the creditor is recognised in the system (therefore a fair-value hedge). The transaction is done in the following way: an authorised member of the purchase team logs in using his authentic logon and password. As his or her security profile only allows for entering of purchase transactions, all other transactions are immediately excluded. He or she selects (from a drop-down menu) a supplier name. This links to the supplier's integrated system and the purchaser has the option to, from this link choose the products he or she wants. The system automatically completes the price field, the delivery date, the payment date and the currency. The purchaser then sends this transaction and the treasury sees it and completes the fields of the FEC purchase date and the foreign exchange purchase date. For a regular transaction, the accounting system is automatically updated when the foreign exchange and FEC purchases are done on the respective days via electronic links with the banks with no further human intervention. On payment date, the system links with the supplier's banking system, communicates the payment and executes it, with the accounting system automatically updated (including the pre-set hedge accounting).

The following dates are entered into the fields:

Transaction	Effective Purchase Date	Payment Date	Forex buy Date	FEC buy Date	Usual/ Unusual	Action Taken
1	02/01/02	30/01/02	30/01/02	02/01/02	Usual	Execute Automatically
2	02/01/02	30/01/02	28/01/02	02/01/02	Unusual Open	Management Intervention

					forex position	required
3	02/01/02	30/01/02	30/01/02	28/12/01	Unusual Cashflow hedge	Management and accounting intervention

The same principle would be followed in other cost centres. Where the treasury buys derivatives and there is no link to another transaction, the codification should indicate that this should be allocated to the held-for-trading group of assets.

Problem 3: External integration

This deals with the possibility of an increasing number of customers that are unknown to the organisation due to the web-based platform. The risk to address here is counterparty risk, or the risk that a counterparty will default on an obligation. This is only possible if there is some kind of amount or potential amount owed to the entity by the counterparty.

Possible solution

The following solutions are suggested:

- A possible way to combat this problem is to generally allow transactions to be processed only when payment has been received. This can be done via on-line credit card authorisation or amounts paid into the bank account, with the customer being assigned a verification or reference number to enter; this number should then automatically be picked up via the bank feed and activate the transaction execution.

- On a second level, regular and risk-approved customers can be provided with a special platform login, which will enable them to transact on credit. It is therefore suggested that unknown customers will only be able to execute cash transactions. This can be complemented by an on-line application to become a credit customer, which can then be assessed using the risk management policy.
- Where credit status is approved, information will have to be provided by the counterparty in order for the entity to have enough data to comply with disclosure requirements.
- As far as transacting with suppliers and banks are concerned, the allowable suppliers and banks must be linked to the entity's system and the system should not be able to electronically transact with any counterparty that does not have an authorised link.

Problem 4: Real-time decision-making

To stay abreast of the speed of transactions, there will be less time available for making decisions on individual transaction classifications. This problem is especially serious in the light of IAS 39, as there is a vast number of requirements dealing with the formulating specifically of management intent, but also of other management decisions. Several of these requirements are necessitated for each individual transaction.

Possible solution

The following solutions are suggested:

- For the most part, a solution would already be found in the proposed solution to internal systems integration, where management would have electronically "assigned

intent“ on what are referred to as “usual“ transactions, whilst having the opportunity of assigning certain additional criteria to transactions falling outside of this range.

- Added to this, it is suggested that management formulates a broad classification framework, setting out the intent and other decisions of the company as a whole, and for each individual business unit. This policy framework will make it easier to determine which transactions to enter into and to understand the intent basis for transacting in any special instrument. Any transactions or type of transactions executed outside of this set framework should be rare and placed under senior management scrutiny. Because of the low probability of such transactions taking place, the vast majority of transactions will continuously flow without waiting for management approval.

Problem 5: Standardisation

Where programs, file types or processes are standardised, there could be a risk that the system cannot accommodate specialised or “irregular“ transactions.

This problem is technically driven. It should be evident from the change factor formulation earlier in this chapter that standardisation is vital if an enterprise wishes to integrate with outside customers and suppliers. Its systems will have to be able to accommodate and communicate with their systems and as the integration becomes larger, it would be impractical to have special interfaces built for each customer and each supplier. An industry standard will be the norm (Schmidt, 2000; Reaburn, 1988; Wanniger, 2000). Internally, however, we are faced with the difficulty that not all transactions will have similar treatment requirements. Where hedging takes place, costly flagging and tracking capabilities will be required or will be desirable for the sale of

unhedged inventory to an Internet-based customer – something that can possibly be done using the standard software.

Possible solution

A proposed solution would be to develop so-called "middleware" – software that can interact with data feeds after transactions are initiated, use the codification already affixed (either electronically, by the initiator and/or by management), and transform the data by performing links and adding capabilities before sending it to different internal system modules (such as the accounting module). When this data needs to be extracted again due to transactions with external parties, the middleware will decompose it, remove or alter the attached fields that are not compatible with the standardised system and pump it back into the standardised systems and interfaces. The technical specifications to attain this fall outside the objectives of this dissertation.

4.5 Conclusion

The five solutions mentioned above seem quite simple. The challenge of this dissertation was, however, not to identify solutions (as many other solutions might exist), but to identify the problems that would be addressed by these solutions, together with the specific requirements that could be affected if one or more are not addressed.

It could be a monumental charge on an enterprise's human resources and capital to implement these system and structural changes after the implementation of an integrated treasury system. Taking these five rather simple steps in consideration when designing such a system could ultimately determine the success of the enterprise's endeavour.

By considering the outcome of this dissertation, enterprises and academics will have the opportunity to get an indication of the importance of pre-emptively considering the effect of futuristic business applications on accounting rules and the importance of developing a harmonisation between business applications and accounting regulations.

CHAPTER 5

CONCLUSION

5.1 Objectives on which conclusion is based

This dissertation focused on three main objectives:

- To identify the measurement, recognition and disclosure requirements as set out in (or implied by) IAS 39 in order to select those requirements for which the possibility of compliance would most probably be affected by the suggested move from a traditional treasury to an integrated Internet treasury.
- To identify the required changes that take place within a treasury environment when changing from a traditional treasury to an integrated Internet-based treasury function.
- To match the identified probable system changes implied by the treasury environment change referred to above with the possible requirements from IAS 39 that could be affected by such a system change.

5.2 Chapter-specific conclusions

In Chapter 2 the requirements brought about by (or implied by) IAS 39 were identified and classified under various headings. It was noted that compliance with a significant number of IAS 39 requirements could be affected by a change in the treasury environment.

In Chapter 3 the required changes that take place within a treasury environment when changing from a traditional treasury function to an integrated Internet-based treasury function were scrutinised. This was used to identify a core set of change factors within the changing treasury environment. These change factors were:

- The internal business systems should be integrated – **internal systems integration**.
- The internal integration of business systems will lead to less personnel, less paper flow and fewer visible outputs per transaction – **internal business integration**.
- External integration will have to exist – **external integration**.
- Treasuries will be real-time with real-time banking and markets – **real-time decision-making**.
- Systems will be standardised with no stand-alone systems – **standardisation**.

In Chapter 4, the change factors identified in Chapter 3 were matched with the requirements from IAS 39 that could be affected by a change in the treasury environment. For each match identified, a suggested solution was offered on how to overcome the difficulty in implementing the IAS 39 requirements.

5.3 Overall conclusion

The dissertation showed that it was possible to match probable system changes implied by a change in the treasury environment with the requirements from IAS 39 for which the implementation would probably be affected by such a change.

In conclusion it is suggested that an integrated Internet-based treasury function could be implemented whilst still complying with the requirements of IAS 39 if the problems identified in the matching table were overcome by applying the suggested solutions offered.

Annexure 1[1]

Author's view on testing for intent

The following section relates to tests for intent and is purely the view of the author. Although somewhat outside of the scope of this dissertation, it is included as an annexure as it provides a greater appreciation of the role that intent plays in the application of IAS 39 and systems development. It should not been seen as being part of the standard's requirements or academic fact.

In creating a test for intent, especially for the use of auditors, it has to be stated that there should be a number of basic considerations that will have to be highlighted:

- Firstly, if the underlying facts in any given scenario clearly suggest that the intent to hold the assets to maturity does not exist, it will be of no value to still test the assets for true intent. Therefore, true intent should just be tested when uncertainty exists.

- Secondly, there is no replacement for professional skepticism. Any auditor who solely relies on the statements of management or the outcome of generic tests will not fulfil his/her statutory duties in an acceptable manner.

- Thirdly, the decision on whether intent based classifications can be justified or not would have to rely on the auditor taking all factors into account in a holistic manner and then use a basis of the balance of probabilities to come to a final

[1] Refer to 2.2.7 of chapter 2 of the main text

conclusion. This conclusion will obviously have to be documented and substantiated, referring to the factors that has been taken into account.

But what are these major factors and do they carry the same weight? The factors I will list below are generic and should always be taken into account when there are doubt. Additional factors will have to be brought into the equation for every specific asset, or every individual case. The weight of every factor considered should be determined from one case to the next – taking into account that some generic tests will always be of more value than others.

The auditor should consider the following:

The cash flow position of the company. If it is clear that the enterprise has a cash flow problem with an unlikely chance of cheaper alternative finance, it is more than likely that financial assets will be sold, rather than assets used for operations. This is especially the case where obtaining loans are either more costly or difficult to obtain due to the present gearing of the enterprise. In this instance, there should be an assessment of all the other existing financial assets available-for-sale and it should be determined whether it would be more economically beneficial for the enterprise to sell those rather than those held-to-maturity.

The type of financial instruments available will be indicative to possible intent with individual groups. Some financial assets are just more likely to be traded in than others. Few companies will for example sell off their debtors to an outside enterprise whilst having redeemable preference shares available. The reason for this is the risk of losing contact with regular buyers and placing them in the hands of a factoring enterprise

whose methods of collecting could be more confrontational than yours, even if the economical benefits (calculating yield) could be less beneficial. All financial assets in possession of the enterprise should therefore be scrutinised.

History of the enterprise's activities regarding similar assets and the risk history on those assets. Although not too much weight should be placed on this test as the manager's intent for individual assets are of more importance than intent based on a majority of assets in the past, this is indicative of a trend and could be important in a conclusion where there are other factors pointing to intent on sale. Financial instruments and their risk profiles do however differ a lot from each other and from the same instrument from time to time. This has a material influence on the intent of the enterprise and therefore this test should never be weighed in isolation, even if it is the easier one to perform as simple historical data can be used to determine this.

An assessment should be made of the possible movements in the fair value of the financial instrument in the next year. If the previous test is said to be one of the easier ones, this should be one of the most difficult for the auditor to assess. The most experienced trader in financial instruments will find it difficult to assess fair value movements. It is however not expected that the auditor speculates on integral market movements, but rather from a financial sound perspective ensures that there are not clear indications that there will be drastic changes in fair value due to material factors affecting the issuing enterprise. The auditor will have to rely on public information and professional judgement, like the possibility of mergers or acquisitions, pending law suits, new international competitors, new legislation and the like.

The preceding paragraphs merely provided some kind of guideline that auditors and accountants could use when considering intent.

Annexure 2[1]

Implementation guidance issued by the International Accounting Standards Board

As stated in chapter 2, subsequent to the release of IAS 39, the Implemetation Guidance Committee of the IASC has released several implementation guidelines in the form of questions and answers. This guidance represents the consensus view of the Implementation Guidance Committee on the interpretation of IAS 39 (Alby, 2001). Entities are required to take this guidance into account when applying the South African standard AC 133 subsequent to the release of circular 2/2003 (SAICA, 2003). These guidelines were taken into consideration in the dissertation, although they are more aimed at examples of specific assets/liabilities and their treatment and of less support on the systems' requirements. They do however provide a greater understanding of what is required from the standard, and therefore are useful in deducting the appropriate system requirements.

The number references to the guidance refer to the original numbers when first published by the IASC in five batches:

Batch 1 – 8 May 2000

Batch 2 – 12 June 2000

Batch 3 – 14 July 2000

Batch 4 – 19 September 2000

Batch 5 – 20 December 2000

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[1] Refer to 1.2 of chapter 2 of the main text

Annexure 2 A

Summaries of implementation guidance concerned with asset classification, tainting, yield-to-maturity and fair value calculation.

Held-for-trading assets

Question 10-15 addresses the purpose at acquisition. Where an enterprise acquires a non-derivative financial asset with an intention to hold it for a long period irrespective of short-term fluctuations in price, this asset cannot be classified as held-for-trading.

Loans and receivables originated by the enterprise

Question 10-7 deals with term deposits made with a bank by another bank, where the proof of deposit is negotiable. Such a deposit is still considered an originated loan, unless the depositer bank intends to sell the instrument for short-term profit taking, in which case the deposit is a financial asset held-for-trading.

Question 10-11 deals with the purchase of a debt security at original issuance where funds are transferred directly to the issuer. This instrument is treated as an originated loan unless the intent is to sell the debt instrument immediately or in the short-term.

Question 10-11b is a follow-up on the previous question. It seeks clarity on whether an equity security with fixed or determinable payments and a fixed maturity can be classified as an originated loan by the holder if the funds are transferred directly to the issuer. The guidance answer on this is affirmative.

Held-to-maturity assets

Question 10-16 deals with the possibility of a bond that is particularly vulnerable to default by the borrower due to significant business, financial or economic uncertainties being classified as a held-to-maturity investment. The guidance answer is yes. This implies less requirements from the enterprise's system, as counterparty risk will not influence classification.

Question 10-17 deals with perpetual debt instruments with fixed or determinable payments, no special liquidation rights and for which the only cash payments under the terms of the instrument are interest payments during a limited period. These instruments can be classified as held-to-maturity as the final date on which interest is paid is seen as the maturity date of the investment.

Question 80-1 handles a query with regards to an index-linked principal and an embedded option. In summary the debt part can be classified as held-to-maturity with the embedded derivative treated in line with other derivatives.

Question 80-2: Can a bond with a fixed payment at maturity and a fixed maturity date be classified as a held-to-maturity investment if the bond's interest payments are indexed to the price of a commodity or equity, and the enterprise has the positive intent and ability

to hold the bond to maturity? The answer is essentially the same as the one for question 80-1.

Question 83-1 deals with the interpretation of the “close enough to maturity“ and “substantially all“ conditions as defined in the par.83. The guidance answer states that “close enough to maturity“ addresses the extent to which interest rate risk is substantially eliminated as a pricing factor (less than three months before maturity is suggested). “The condition of substantially all of the original principal provides guidance as to when a sale is for not more than an insignificant amount (sale after collection of 90% is suggested).“

Question 83-2: “IAS 39.90 requires that a held-to-maturity investment must be reclassified (to either available-for-sale or trading) and remeasured at fair value if there is a change of intent or ability. Does such reclassification call into question the classification of other held-to-maturity investments?“ The answer is yes.

Question 83-3: “IAS 39.83 prohibits held-to-maturity classification if an enterprise has sold, transferred or exercised a put option on more than an insignificant amount of held-to-maturity investments, but it provides in subparagraphs (a), (b) and (c) for exceptions for certain sales. Do those exceptions also apply to transfers and exercises of put options in similar circumstances?“ The answer is “yes.“

Question 83-7 deals with whether a sale of a held-to-maturity investment following a downgrade of the issuer’s credit rating by a rating agency raise a question about the enterprise’s intent to hold other investments to maturity. The answer is that it would not necessarily. The answer further explains that a sale due to a significant deterioration in the issuer’s creditworthiness could satisfy the condition in IAS 39.83 and therefore not

raise a question about the enterprise's intent to hold other investments to maturity (see par. 86).

Question 86-1 asks if sales of held-to-maturity financial assets due to a change in management comprise the classification of other financial assets as held-to-maturity. The guidance answer yes, as a change in management is not one of the specified cases where a sale of held-to-maturity investments would not comprise the classification of investments.

Question 87-1: " An enterprise cannot have a demonstrated ability to hold to maturity an investment if it is subject to a constraint that could frustrate its intention to hold the financial asset to maturity. Does this mean that a debt security that has been pledged as collateral or transferred to another party under a repo or securities lending transaction and continues to be recognised, cannot be classified as a held-to-maturity investment?" Answer: "No. An enterprise's intent and ability to hold debt securities to maturity is not necessarily constrained if those securities have been pledged as collateral or are subject to a repurchase agreement or securities lending agreement."

Loan classification

Guidance provided is mostly concentrated on questions relating to short sales. Question 18-1 and 18-2 are dealt with below:

The first addresses the recognition of the asset and liability under a short sale – the liability under the short sale is represented by the financial asset that should be delivered and an asset is recorded that represents the proceeds from the sale.

The guidance then suggests that when an enterprise sells loan assets that it has borrowed and receives payment, the obligation to deliver the loan assets to the lender of the loan assets should be classified as a liability held-for-trading.

Tainting

Question 83-4: " In response to unsolicited tender offers, Company A sells a significant amount of financial assets classified as held-to-maturity on economically favourable terms. Company A does not classify any financial assets acquired after the date of the sale as held-to-maturity. However, it does not reclassify the remaining held-to-maturity investments since it maintains that it still intents to hold them to maturity. Is Company A in compliance with IAS 39?" The answer provided is "no". This falls outside the exceptional reasons stated in par.83 and par. 86, and therefore no instruments should be classified in the held-to-maturity category.

Question 83-5 asks whether a enterprise can apply the conditions in IAS 39.83 separately to different categories of held-to-maturity financial assets. The answer is negative.

Question 83-6 refers to application of tainting and consolidation. "Can an enterprise apply the conditions in IAS 39.83 separately to held-to-maturity financial assets held by different companies in a consolidated group, for instance, if those group companies are in different countries with different legal and economic environments?" The answer is also negative.

Yield-to-maturity

The answer to question 10-19 explains that the determination of the effective interest rate is based on the expected cash payments rather than the contractual cash payments.

Question 73-1 is an example of how amortised cost is calculated.

Fair value calculations

Question 70-1: "An enterprise acquires a complex derivative that is based on several underlying variables, including commodity prices, interest rates and credit indices. There is no active market or other price quotation for the derivative and no active market for some of its underlying variables. The enterprise contends that the fair value of the derivative cannot be reliable measured. Should it measure the derivative at cost or amortised cost in accordance with IAS 39.73? Answer: "No. IAS 39.69 and IAS 39.93 require derivatives to be carried at fair value. There is a presumption that derivatives can be reliably determined with the exception of derivatives that are linked to and must be settled by delivery of an unquoted equity instrument."

Question 70-2 lays down the principle that if the fair value of an equity instrument cannot be reliably determined, IAS 39 precludes measuring that equity instrument at fair value.

Question 70-3 deals with the case where an embedded derivative that is required to be separated cannot be reliably measured because it will be settled by an unquoted equity

instrument whose fair value cannot be reliably measured. Should the embedded derivative be measured at cost? The answer is no, as the entire combined contract is treated as a financial instrument held-for-trading and measured at fair value. Where the equity component of the combined instrument is sufficiently significant, the combined instrument is measured at cost less impairment.

Question 99-1's answer states that it is not appropriate for an investment fund to measure its assets based on mid-market prices if the rules of those funds require net asset values to be reported to investors based on mid-market prices. The general rule stated in IAS 39.99 of using bid prices applies.

Question 100-1: " Company A holds 15% of the share capital in company B. Since the ownership of shares in Company B otherwise is widely dispersed, Company A is able to exercise influence over the operations of Company B. The shares are publicly traded in an active market. The current quoted price is 100. Daily trading volume is 0.1 per cent of outstanding shares. Because Company A believes that the fair value of the Company B shares it owns, if sold as a block, is greater than the quoted market price, Company A obtains several independent estimates of the price it would obtain if it sells its holding. These estimates indicate that Company A would be able to obtain a price of 105, that is, a 5% "control premium" above the quoted price. Which figure should Company A use or measuring its holding at fair value?" The answer suggests that if Company A could present objective, reliable evidence validating a higher amount, adjustments could be made to the quoted price. If not, Company A should use the quoted price.

Annexure 2 B

Quoted implementation guidance on derecognition and impairment – Due to the technical nature and magnitude of the guidance provided, the entire question and answer is quoted from the IASC guidance.

Derecognition

Paragraph 35

Question 35- 1
Derecognition: significant financial difficulty of the transferee
Company A has transferred financial assets to Company B under a sale and repurchase (repo) agreement. The assets remain on the balance sheet of Company A since it is both entitled and obligated to repurchase the assets on terms that effectively provide Company B with a lender's return. Soon it appears that Company B is experiencing significant financial difficulties, which leads to doubt about B's ability to return the assets. Since the market value of the securities is higher than the repurchase price under the repo agreement, it is not expected that B will fulfil its obligation to resell the securities to A. Should Company A derecognise the securities?

No. Company A does not derecognise the securities unless a competent legal authority has decided that Company A will not recover access to the securities, for instance, due to the bankruptcy of B. However, even if the securities continue to be recognised, Company A assesses whether an impairment loss has occurred. The fact pattern in the Question indicates that Company A will report an impairment loss equal to the difference between the carrying amount of the securities and the liability for the cash received under the repurchase agreement.

Paragraph 38

Question 38- 1

Derecognition: right of first refusal

Is derecognition appropriate if the transferor retains a right of first refusal that permits the transferor to purchase the transferred assets at their fair value at the date of reacquisition should the transferee decide to sell them?

Yes, IAS 39.38(a)(ii) is clear. Derecognition is appropriate since the reacquisition price is the fair value at the time of the reacquisition.

Paragraph 41

Question 41- 1

Derecognition: call option on beneficial interest in SPE

IAS 39.41 indicates that derecognition may be appropriate when assets are transferred to a Special Purpose Entity (SPE). Company A transfers a portfolio of receivables that are not readily obtainable in the market to a SPE created for the purpose of securitising these receivables and selling the securities to investors. Company A retains call options on the securities issued by the SPE. The strike price is equal to the face value of the securities plus two per cent. Should the receivables be derecognised?

No. It follows from IAS 39.38(a) that control of the transferred receivables has not been surrendered since the transferor has the right to reacquire the securitised receivables, the assets are not readily obtainable in the market, and the reacquisition price is not specified as the fair value of the assets at the time of reacquisition. In addition, it follows from IAS 39.41(b) that control has not been transferred since the holders of the beneficial interest in the SPE (other than Company A) do not have the ability to obtain the benefits of the transferred assets. The issue of whether to consolidate an SPE is addressed in IAS 27 and SIC- 12.

Paragraph 57

Question 57- 1

Derecognition of a liability when third party receives a fee to assume the obligation

Company B borrows from Company A. Company B pays a fee to a third party (Company C) to assume the liability, and the original creditor (Company A) agrees to accept Company C as the new primary obligor, even though Companies B and C have contracted that Company B must continue to make interest and principal payments on behalf of Company C. Should Company B (the original primary obligor) derecognise the financial liability to Company A?

Yes. It follows from IAS 39.58(b) that Company B has extinguished its liability to Company A provided that Company A has released Company B from its primary responsibility for the liability and Company A can look only to the new primary obligor (Company C) in the event the original primary obligor (Company B) fails to make the required interest and principal payments. Presumably, Company A would agree to do this only if Company C is a better credit than Company B. While Company B derecognises its liability to Company A, at the same time it will recognise its new liability to Company C. Also, Company C will recognise both a receivable from Company B and a liability to Company A. Company C is not permitted to offset its liability to Company A against its receivable from Company B unless a binding legal agreement among the three parties gives Company C the right of offset (see IAS 32.33 and IAS 32.36).

IAS 18, Revenue, provides guidance on accounting for the fee received by Company C.

Paragraph 57

Question 57- 2

Derecognition of financial liabilities: buy- back of bond obligation with

intention to resell

If an enterprise buys back one of its own bonds and has the intention to resell it, should it nevertheless derecognise the liability and take any gain or loss to net profit or loss?

Yes. In this case it is clear that the debtor has discharged the liability by paying the creditor. The enterprise does not have a liability to itself. The intention to resell the bonds does not create a contractual obligation to deliver cash or another financial asset. Therefore, the liability is derecognised.
This is consistent with the treatment of treasury shares as a deduction from equity, even if the enterprise has the intention to resell those shares (SIC- 16).
If an enterprise repurchases its own debt, any difference between the carrying amount and the amount paid is included in net profit or loss (IAS 39.63).

Paragraph 35

Question 35- 2

Derecognition of a portion of a loan

When a portion of a financial asset is sold and a portion is retained, the transferor often retains custody of the asset and the transferee is unable to sell or pledge it. Further, when a portion of a financial asset is sold, restrictions are generally placed on the sale and use of those assets to protect the interests of all parties that have ownership rights in the assets. Does IAS 39 prohibit derecognition if the transferor retains custody of the loans and the transferee does not have the ability to sell or pledge the loans?

No, derecognition is not necessarily prohibited. IAS 39. 35 explicitly provides for the sale of a portion of a financial asset when an enterprise loses control of the contractual rights that comprise it. It specifies that “an enterprise loses such control if it realises the rights to benefits specified in the contract, the rights expire, or the enterprise surrenders those rights.“ IAS 39.41 states that a transferor “generally“ loses control only if the transferee has the ability to obtain the benefits of the transferred asset. The examples given of this are if

the transferee is free to sell or pledge the financial asset or, if the transferee is a special purpose entity, the holders of the beneficial interests in the SPE have the ability to obtain substantially all of the benefits of the transferred assets. However, IAS 39. 41 does not limit sale accounting to these two conditions. Although IAS 39 does not provide specific guidance for situations in which a transferor and transferee share disproportionately the risks and rewards of financial assets and, as a result, neither party has control over such assets, it recognises that control is not just a physical or custody notion. There are other factors to consider, particularly the ability to realise the beneficial interests.

To illustrate, Company A purchases loans in the market place at par with an effective yield at the time of purchase equal to its coupon of 11%. It later sells a portion of those loans to investors. Under the terms of the sales agreement, the investors purchase at par 80% of the total principal amount of the loan with interest at 6%. Company A retains the remaining 20% of the principal with coupon interest at 11%, and the excess interest of 5% due on the underlying loans that were sold to the investors. Company A's retained interests in the loans are pledged as collateral on a first loss basis to the investors and, therefore, is subordinated to the 80% portion of the loans sold to the investors. Company A also agrees to continue to collect interest and principal payments from the borrowers and remit the payments to the investors for their share of the cash flows. Since the loans cannot be physically separated, the portion sold cannot be delivered to the investors. Company A also retains physical custody of the loans; however, to protect the interests of each of the parties, Company A is prohibited under the agreement from selling or pledging the loans that were the subject of the partial sale. Assuming there are no other rights or obligations relating to this transaction that would preclude sale accounting, Company A accounts for this transaction as a sale even though it retains custody of the loans and the investors do not have the ability to sell or pledge the loans.

Company A has relinquished control of the 80% interest in the loans that it sold. Even though Company A retains custody of the loans, it gave up its right to sell or pledge the loans. Company A also realised the benefits of the portion of the loans that were sold, and the investors obtain the risks and

rewards of ownership of the portion of the asset that they purchased. Neither Company A nor the investors have the right to sell or pledge the underlying loans, but both Company A and the investors are free to sell or pledge their respective interests. Accordingly, they have control over their respective economic benefits in the interests that they own in the loans.

Paragraph 35
Question 35- 3

Factors affecting derecognition of a portion of a loan
What factors should be considered in determining whether and to what extent a transfer of a portion of a financial asset is accounted for as a sale?

IAS 39.35 sets out the basic principle for derecognising a financial asset – losing control of the contractual rights that comprise the financial asset. IAS 39.35- 42 contain various factors and examples that should be considered in determining whether a transferor loses control of those rights. However, the guidance recognises that the examples should not be viewed in isolation and that the transfer of control can be demonstrated in other ways.
The following factors suggest that an enterprise loses control of the contractual rights that comprise financial assets when a portion of those assets are sold and the parties to the transaction have rights to the cash flows of the underlying loans and/ or obligations relating to the portion of the financial assets sold:

The transaction is legally documented as a sale of a beneficial interest in a specified portion of the cash flows underlying the financial assets.

Rationale *– IAS 39. 35 identifies three situations in which an enterprise loses control, namely: when it realises the rights to benefits specified in the contract, the rights expire, or the enterprise*

surrenders those rights. Recognition of a transfer of the asset is contemplated only in a situation in which the enterprise surrenders those rights. Although the guidance in IAS 39 does not specify that a transfer must be documented as a sale, the documentation of a transfer as a sale distinguishes it from being merely a pledge of collateral, for example, in the case of collateralised non- recourse debt whereby the loans are physically transferred to the lender. It also serves to preclude the transferor from having the ability to pay off the debt and reacquire the transferred assets without having an explicit forward contract or repurchase agreement. An explicit contract or agreement to repurchase the transferred assets generally would preclude derecognition under IAS 39.38.

The transferor is prohibited by the terms of the transfer contract or documents from selling or pledging the underlying financial assets that are the subject of the transfer and, thereby, relinquishes control of such assets.

Rationale *– In a transfer of a portion of financial assets, neither the enterprise (the transferor) nor the investor (the transferee) generally would have the right to sell the underlying assets because they are jointly owned. It would be difficult to conclude that the condition in IAS 39.35, that the enterprise (the transferor) surrenders the rights that comprise the financial asset, would be met if the transferor retained the right to sell or pledge assets that are purported to be the subject of the transfer.*

Even though the transferee is unable to sell or pledge the underlying financial assets that are the subject of the transfer, it has the ability to sell or pledge its interest in the transferred financial assets.

Rationale *– IAS 39. 41 specifies that the ability of the transferee to obtain the benefits of the transferred assets is demonstrated, for example, if the transferee "is free either to sell or to pledge*

approximately the full fair value of the transferred asset" or, in the circumstance of a sale through a special purpose entity if "the holders of beneficial interests in that entity have the ability to obtain substantially all of the benefits of the transferred asset". It also specifies that "that ability may be demonstrated in other ways". The example does not specifically address the situation in which a portion of financial assets is sold. However, the condition in the example in IAS 39. 41 is met if the transferee is free to sell or to pledge its beneficial interests in the underlying financial assets that are the subject of the transfer. The transferred assets are only the portion of the underlying assets that are the beneficial interests now owned by the transferee and for which the transferee has the ability to sell or pledge.

If the transferor retains custody of the loans that are subject of a partial sale and provides servicing, the transferor is obligated to remit the cash flows it collects on behalf of the investors on a timely basis. The transferor is not entitled to reinvest such cash flows for its benefit, except to provide a return from short- term high quality investments made from the collection date to the date of remittance to the investors.

Rationale *– When a portion of financial assets is sold, the transferor may retain the right and obligation to service the underlying financial assets. If the transferor's beneficial interest in the underlying financial assets is subordinated to the beneficial interests of the investors, the retention of servicing rights allows the transferor to protect its interests in the financial assets when they become delinquent, are in default, or demonstrate credit deterioration. A transferor's ability to service financial assets that are subject to a partial sale may suggest that the transferor has not surrendered control over the contractual rights that comprise the financial assets as required by IAS 39.35. However, a transferor that also provides servicing acts only as an agent for the investors in*

the beneficial interests that have been sold if, under the servicing agreement, the transferor does not have use of or benefit from the cash it collects on behalf of the investors and is required to remit to them on a timely basis, as specified in the servicing agreement, the cash it collects representing their beneficial interests in the financial assets.

Beneficial interests in a portion of financial assets are considered not readily obtainable for purposes of applying IAS 39.38 regardless of whether the underlying financial assets that are the subject of a transfer are readily obtainable in the market.

Rationale – *IAS 39.38 also focuses on assets that are not readily obtainable in the market. In situations in which a portion of financial assets is sold, the underlying assets that are the subject of the transfer may be readily obtainable in the market. However, in these situations it does not matter whether the underlying assets are readily obtainable in the market if neither the transferor nor transferee is permitted to sell or pledge them. Even though both the transferor and transferee have the right to sell or pledge their respective beneficial interests in the underlying financial assets, if such beneficial interests are not readily obtainable in the market, they would also be considered not readily obtainable for purposes of the guidance in IAS 39.38. In these circumstances, a transferee would not be able to sell its beneficial interest if it were subject to a repurchase arrangement because the asset would not necessarily be available to be repurchased to satisfy the repurchase arrangement.*
The following factors limit the extent to which the portion of the transferred financial assets qualify for derecognition:

- If the investors can (a) exercise an unconditional put option to sell the transferred assets or a portion of such transferred assets back to the transferor provided the assets are not readily obtainable in the market, (b) there is a forward agreement requiring the repurchase of

the transferred financial assets or a portion thereof, or (c) the transferor retains a call option to repurchase the transferred assets or a portion thereof and the exercise prices are not at market, derecognition to the full extent of the repurchase provisions is prohibited.

Rationale *– IAS 39. 38 specifies that a transferor has not lost control of a transferred financial asset in situations in which (a) there is a repurchase agreement or (b) the asset is not readily obtainable and the transferee obtains an unconditional put option or the transferor retains a call option. In these situations the transferor retains both credit and market risk. There is no specific guidance for the situation in which a portion of the transferred assets is subject to being reacquired by the transferor. However, in these circumstances the transferor has retained both credit and market risk to the extent that it may reacquire the assets.*

If the transferor subordinates its retained interest or otherwise provides a guarantee to the investors for both credit risk and market risk, the portion of the transferred financial assets that would otherwise qualify for derecognition is reduced to the extent that both of these risks are guaranteed. The reduction is the lower of the maximum amount of the credit guarantee and the percentage of the transferred financial asset that is guaranteed by the transferor against market risk.

Rationale *– If a transferor provides a guarantee of both credit and market risk, none of the risks of the underlying assets are in effect being transferred to the transferee. IAS 39. 38(c) specifies that a transferor has not lost control in the situation in which "the asset transferred is not readily obtainable in the market and the transferor has retained substantially all of the risks and returns of ownership through a total return swap". Because a total return swap has the economic effect of the transferor retaining both credit and market*

risk, the retention of both risks for a portion of the transferred assets indicates that the transferor has not lost control of the benefits of that portion.

Paragraph 35
Question 35- 4

Factors affecting derecognition of financial assets transferred to a special purpose entity
Would the answer change if, in the same fact situations in Questions 35- 2 and 35- 3, Company A transferred the loans in a securitisation transaction to a special purpose entity that it was required to consolidate and the special purpose entity entered into the same transactions with the investors?

No. The evaluation of whether a transfer of a portion of financial assets meets the derecognition criteria under IAS 39 generally will not differ if the transfer is directly to investors or through a special purpose entity that obtains the financial assets and, in turn, transfers a portion of those financial assets to third party investors. If a transfer by a special purpose entity to a third party investor meets the conditions specified for derecognition in IAS 39. 35- 42 as explained more fully in Question 35- 3, the transfer would be accounted for as a sale by the special purpose entity and those derecognised assets or portions thereof would not be brought back on the balance sheet in the consolidated financial statements of the enterprise.

Paragraph 37 (also paragraph 51)
Question 37- 1

Derecognition: full recourse
Does an enterprise derecognise receivables if it "sells" them and provides a guarantee to the "buyer" to pay for any credit losses that may be incurred on the receivables as a result of the failure of the debtor to pay when due?

Yes. IAS 39. 37 states that if the position of either enterprise indicates that the transferor has retained control, the financial asset is not derecognised. In this case, the transferor has lost control over the receivables because the transferee has the ability to obtain the benefits of the transferred assets (IAS 37. 41) and the risk retained by the transferor is limited to credit risk in the case of default. IAS 39.53 indicates that the guarantee is treated as a separate financial instrument to be recognised as a financial liability by the transferor.

Paragraph 38
Question 38- 2

Derecognition: unconditional put option
A company sells receivables (that are not readily obtainable in the market) due in six months, with a carrying amount of 100,000, for a cash payment of 95,000 subject to full right of recourse. Under the right of recourse, the transferor is obligated to compensate the transferee for the failure of the underlying debtors to pay when due. In addition, the recourse provision entitles the transferee to sell the receivables back to the transferor at a fixed price in the event of unfavourable changes in interest rates or credit ratings of the underlying debtors. How should this transaction be accounted for?

This transaction is accounted for as a collateralised borrowing since it does not qualify for derecognition. IAS 39. 37 states that if the position of either enterprise indicates that the transferor has retained control, the financial asset is not derecognised. By reference to IAS 39.41(a), it could be concluded that the transferor has lost control since the transferee has the ability to obtain the benefits of the transferred asset and is free to sell or pledge approximately the full fair value of the transferred asset. However, the transferor has granted the transferee an unconditional put option on the transferred asset since the transferee may sell the receivables back to the transferor in the event of both actual credit losses and changes in underlying credit ratings or interest rates. Under IAS 39.38(c), a transferor has not lost control and therefore a financial

asset is not derecognised if it retains substantially all the risks of ownership through an unconditional put option on the transferred asset held by the transferee.

The transferor recognises the 95,000 received as a liability. The liability is measured at amortised cost with interest expense of 5,000 being recognised over its six- month maturity. The transferor continues to recognise the receivables as assets. Cash received on the receivables either by the transferor or the transferee reduces both the receivables and the liability. If receivables are returned to the transferor, the liability is extinguished and a gain or loss recognised as the difference between the carrying amount and the cash paid.

Paragraph 38

Question 38- 3

Derecognition: repo or securities lending transaction and right of substitution

Would the transferor derecognise an asset that is readily obtainable in the market and that has been transferred under a sale and repurchase (repo) agreement or securities lending transaction if the transferee has a right to substitute similar assets of equal fair value for the transferred asset?

No. IAS 39.38(b) indicates that the asset should not be derecognised if the transferor is both entitled and obligated to repurchase or redeem the transferred asset on terms that effectively provide the transferee with a lender's return on the assets received in exchange for the transferred asset. Therefore, the asset sold or lent under a repo or securities lending transaction is not derecognised. If the transferee uses its option to return an asset other than that transferred to the transferor, the transferor derecognises the transferred asset and recognises the returned asset.

Question 36- 1

Derivatives that serve as impediments to the derecognition of a financial asset

If the existence of a derivative instrument (whether stand- alone or embedded in another contract) indicates that a transferor has not lost control of a financial asset and the derivative is based solely on that financial asset, is the derivative instrument accounted for as a derivative instrument at fair value under IAS 39?

No. A derivative would not be recognised if recognising both the derivative and either the transferred asset or the liability arising from a transfer would result in counting the same thing twice in the transferor's balance sheet.
For instance, if a transferor is both entitled and obligated to repurchase transferred assets on terms that effectively provide the transferee with a lender's return on the assets received in exchange for the transferred assets, the transferred assets are not derecognised (IAS 39.38(b)). Although the repurchase agreement meets the definition of a derivative in IAS 39. 10 (it can be viewed as a forward contract), it follows from IAS 39.36 that it is not separately recognised as a derivative and measured at fair value under IAS 39. Also, if a retained call option prevents a transfer of financial assets from being accounted for as a sale under IAS 39.38(a), the call option would not be separately recognised but be accounted for as a component of the borrowing, since exercising the call option would result in the extinguishment of the debt.

Paragraph 38

Question 38- 4

Derecognition: deep- in- the money put option held by transferee

What is the impact of a deep- in- the money put option held by a transferee on the transferor's ability to derecognise the financial asset subject to the option?

If the transferred asset is not readily obtainable in the market and the transferor has retained substantially all of the risks of ownership through an unconditional put option on the transferred assets held by the transferee, the

transferor would not derecognise the financial asset (IAS 39.38(c)). If the put option is deep in the money, it acts more like a forward repurchase agreement than an option because it has both upside and downside potential. The retention of upside and downside risk suggests that the transferor has not given up control of the asset.

If the transferred asset is readily obtainable in the market, for instance, a financial instrument traded in an active market, the transferor derecognises the transferred asset and recognises the put option as a financial liability measured at fair value regardless of whether the option is in the money, at the money or out of the money.

Paragraph 38

Question 38- 5

Derecognition: ‘‘ clean- up call“

What is the impact of an option held by a servicer to purchase transferred financial assets when the amount of outstanding financial assets falls to a level at which the cost of servicing those financial assets becomes burdensome (a “clean- up call option“) on the servicer’s ability to derecognise the financial asset subject to the clean- up call?

The existence of a clean- up call option held by a transferor is not of itself a sufficient basis for concluding that the transferor has maintained control over the transferred assets because the call option is conditional on the cost of servicing those financial assets. However, it may suggest that a portion of the transferred assets does not qualify for derecognition. See Question 35- 2.

Paragraph 53

Question 53- 1

Asset derecognition coupled with a new financial liability: guarantee

Company A transfers long- term receivables that have a fair value of 980

to Company B for 1,000 and provides a guarantee against default loss on the receivables up to 200. Actual losses in excess of 200 will be borne by Company B. The receivables qualify for derecognition by Company A. Consistent with IAS 39.53, the guarantee is recognised as a financial liability. Is the issued guarantee a trading liability under IAS 39?

No. The guarantee meets the definition of a derivative in IAS 39.10, that is, its value changes in response to an underlying (credit losses), it requires a small initial net investment relative to the underlying loan assets guaranteed, and it will be settled at a future date. However, it is generally exempt from IAS 39 under IAS 39.1(f) because it provides for payment to reimburse the holder for losses resulting from the failure of the debtor to pay when due and, therefore, not accounted for as a trading liability. Nevertheless, IAS 39.56 requires the guarantee to be measured at fair value (or at the greater of its original recorded amount and any provision required by IAS 37, if fair value cannot be reliably determined), until it expires.

Paragraph 57
Question 57- 3

Derecognition of a financial liability: joint responsibility for debt
Enterprise A issues bonds that have a carrying amount and fair value of 1,000,000. Enterprise A pays 1,000,000 to Enterprise B for Enterprise B to assume responsibility for paying interest and principal on the bonds to the bondholders. The bondholders are informed that Enterprise B has assumed responsibility for the debt. However, Enterprise A is not legally released from the obligation to pay interest and principal by the bondholders. Accordingly, if Enterprise B does not make payments when due, the bondholders may seek payment from Enterprise A. Should Enterprise A derecognise the financial liability for the bonds and recognise a guarantee to pay if Enterprise B does not pay?

No. IAS 39.58(b) specifies that the derecognition condition in IAS 39.57 is met when the debtor is legally released from primary responsibility for the

liability either by process of law or by the creditor. In this case, Enterprise A has not been legally released from the obligation to pay interest and principal on the bonds to the bondholders. Therefore, Enterprise A continues to recognise the liability for the bonds and recognises a receivable from Enterprise B of 1,000,000. Enterprise B recognises a liability of 1,000,000 since it has assumed an obligation to pay interest and principal to the bondholders.

Paragraph 53
Question 53- 1

Asset derecognition coupled with a new financial liability: guarantee
Company A transfers long- term receivables that have a fair value of 980 to Company B for 1,000 and provides a guarantee against default loss on the receivables up to 200. Actual losses in excess of 200 will be borne by Company B. The receivables qualify for derecognition by Company A. Consistent with IAS 39.53, the guarantee is recognised as a financial liability. Is the issued guarantee a trading liability under IAS 39?

No. The guarantee meets the definition of a derivative in IAS 39.10, that is, its value changes in response to an underlying (credit losses), it requires a small initial net investment relative to the underlying loan assets guaranteed, and it will be settled at a future date. However, it is generally exempt from IAS 39 under IAS 39.1(f) because it provides for payment to reimburse the holder for losses resulting from the failure of the debtor to pay when due and, therefore, not accounted for as a trading liability. Nevertheless, IAS 39.56 requires the guarantee to be measured at fair value (or at the greater of its original recorded amount and any provision required by IAS 37, if fair value cannot be reliably determined), until it expires.

Paragraph 57
Question 57- 3

Derecognition of a financial liability: joint responsibility for debt

Enterprise A issues bonds that have a carrying amount and fair value of 1,000,000. Enterprise A pays 1,000,000 to Enterprise B for Enterprise B to assume responsibility for paying interest and principal on the bonds to the bondholders. The bondholders are informed that Enterprise B has assumed responsibility for the debt. However, Enterprise A is not legally released from the obligation to pay interest and principal by the bondholders. Accordingly, if Enterprise B does not make payments when due, the bondholders may seek payment from Enterprise A. Should Enterprise A derecognise the financial liability for the bonds and recognise a guarantee to pay if Enterprise B does not pay?

No. IAS 39.58(b) specifies that the derecognition condition in IAS 39.57 is met when the debtor is legally released from primary responsibility for the liability either by process of law or by the creditor. In this case, Enterprise A has not been legally released from the obligation to pay interest and principal on the bonds to the bondholders. Therefore, Enterprise A continues to recognise the liability for the bonds and recognises a receivable from Enterprise B of 1,000,000. Enterprise B recognises a liability of 1,000,000 since it has assumed an obligation to pay interest and principal to the bondholders.

Impairment

Due to the technical nature and magnitude of the guidance provided, the entire question and answer is quoted from the IASC guidance.

Paragraph 111
Question 111- 1

Assessment of impairment: principal and interest

"Due to significant financial difficulties of Customer B, Bank A expects that Customer B will not make all principal and interest payments due on an originated loan in a timely manner. It negotiates a restructuring of the loan. Bank A expects that Company B will be able to meet its obligations under the restructured terms. Would Bank A recognise an impairment loss in any of the following cases?

(a) Customer B will pay the full principal amount of the original loan five years after the original due date, but none of the interest due under the original terms.

(b) Customer B will pay the full principal amount of the original loan on the original due date, but none of the interest due under the original terms.

(c) Customer B will pay the full principal amount on the original due date with interest only at a lower interest rate than the interest rate inherent in the original loan.

(d) Customer B will pay the full principal amount five years after the original due date and all interest accrued during the original loan term, but no interest for the extended term.

(e) Customer B will pay the full principal amount five years after the original due date and all interest, including interest for both the original term of the loan and the extended term."

Answer:

a-d: The present value of the future principal and interest payments discounted at the loan's original effective interest rate (that is, the recoverable amount) will be lower than the carrying amount of the loan. Therefore, an impairment loss is recognised in those cases.

In case (e), the present value of the future principal and interest payments discounted at the loan's original effective interest rate will equal the carrying amount of the loan. Therefore, there is no impairment loss.

Paragraph 111 (also paragraph 137)
Question 111- 2

Assessment of impairment: fair value hedge
An originated loan with fixed interest rate payments is hedged against the exposure to interest rate risk by a receive- variable pay- fixed interest rate swap. The hedge relationship qualifies for fair value hedge accounting and is reported as a fair value hedge. Thus, the carrying amount of the loan includes an adjustment for fair value changes attributable to movements in interest rates. Should an assessment of impairment in the loan take into account the fair value adjustment for interest rate risk?

Yes. The loan's original effective interest rate prior to the hedge becomes irrelevant once the carrying amount of the loan is adjusted for any changes in its fair value attributable to interest rate movements.

Paragraph 112
Question 112- 1

"IAS 39.111 requires that impairment be recognised for financial assets carried at amortised cost. IAS 39.112 states that impairment may be measured and recognised individually or on a portfolio basis for a group of similar financial assets. If one asset in the group is impaired but the fair value of another asset in the group is above its amortised cost, does IAS 39 allow non- recognition of the impairment of the first asset?

No. If an enterprise knows that an individual financial asset carried at amortised cost is impaired, IAS 39.111 requires that the impairment of that asset be recognised."

Paragraph 117
Question 117- 1

"Impairment of available- for- sale financial assets
The market value of an equity security that is classified as available- for- sale falls below cost. Is this evidence of impairment?

Not necessarily. If the enterprise reports fair value changes on available- for- sale financial assets in equity in accordance with IAS 39, it continues to do so until there is objective evidence of impairment, such as the circumstances identified in IAS 39.110. If evidence of impairment exists, any cumulative net loss that has been recognised directly in equity is removed and recognised in net profit or loss for the period."

Paragraph 109
Question 109- 1

"Does IAS 39 require that an enterprise be able to identify a single, distinct past causative event to conclude that it is probable that it will not

be able to collect all amounts due on a financial asset?

No. For instance, IAS 39.110 states that "a downgrade of an enterprise's credit rating is not, of itself, evidence of impairment, though it may be evidence of impairment when considered with other available information". Other factors that an enterprise considers in determining whether it has objective evidence that an impairment loss has occurred includes information about the debtors' or issuers' liquidity, solvency, and business and financial risk exposures, levels of and trends in delinquencies for similar financial assets, national and local economic trends and conditions, and the fair value of collateral and guarantees. These and other factors may either individually or taken together provide sufficient objective evidence that an impairment loss has occurred in a financial asset or group of financial assets."

Paragraph 111
Question 111- 3

"A financial institution calculates impairment in the unsecured portion of loans and receivables on the basis of a provisioning matrix that specifies fixed provisioning rates for the number of days a loan has been classified as non- performing (0% if less than 90 days 20% if 90- 180 days, 50% if 180- 365 days, and 100% if more than 365 days). Can the results be considered to be appropriate for the purposes of calculating the recoverable amount of originated loans and receivables under IAS 39.111?

Not necessarily. IAS 39.111 requires impairment or bad debt losses to be calculated as the difference between the asset's carrying amount and the present value of expected future cash flows discounted at the financial instrument's original effective interest rate."

Paragraph 111
Question 111- 4

Impairment losses

IAS 39 does not permit an enterprise to recognise impairment or bad debt losses in excess of impairment losses that are determined based on objective evidence about impairment in identified individual financial assets or identified groups of similar financial assets.

Paragraph 113
Question 113- 1

Impairment: consideration of the value of collateral
If an impaired financial asset is secured by collateral, either in the form of a right to obtain another asset in the case of default or in the form of a guarantee, should the collateral be taken into account in measuring the recoverable amount of the asset?

Yes.

Paragraph 113
Question 113- 2

If an impaired financial asset is secured by collateral and foreclosure is probable, is the collateral recognised as an asset separate from the impaired financial asset?

No. The measurement of the impaired financial asset reflects the value of the collateral.

Paragraph 113
Question 113- 3

IAS 39 does not permit measuring impairment of a fixed rate financial asset carried at amortised cost based on the asset's observable market price?

IAS 39.113 states that " impairment of a financial asset carried at amortised cost is measured using the financial instrument's original effective interest rate because discounting at the current market rate of interest would, in effect, impose fair- value measurement ..."

Paragraph 117
Question 117- 2

"If a non- monetary financial asset measured at fair value with gains and losses reported in equity becomes impaired, should any cumulative net exchange loss included in equity be recognised in net profit or loss for the period?

Yes. IAS 39.117 states that if a loss on a financial asset carried at fair value has been recognised directly in equity and there is objective evidence that the asset is impaired, the cumulative net loss that had been recognised directly in equity should be removed from equity and recognised in net profit or loss for the period even though the asset has not been derecognised."

Paragraph 118
Question 118- 1

"IAS 39.118 states that the recoverable amount of a debt instrument remeasured to fair value is the present value of expected future cash flows discounted at the current market rate for a similar financial asset. What is the current market rate of interest for a similar financial asset?

IAS 39 does not define the current market rate of interest for a similar financial asset. The current market rate of interest for an otherwise comparable financial asset is its effective yield. That yield is adjusted by the market place for the impairment loss it expects."

Annexure 2 C

Implementation guidance on hedging and the suggested system requirements.

Question	Answer	Possible requirements
Question 127- 1 **Hedge accounting: netting of assets and liabilities** **May an enterprise group financial assets together with financial liabilities for the purpose of determining the net cash flow exposure to be hedged for hedge accounting purposes?**	While an enterprise's hedging strategy and risk management practices may assess cash flow risk on a net basis, for the purpose of hedge accounting under IAS 39, assets and liabilities cannot be grouped together (netted). Although IAS 39.132 does permit grouping of similar assets or similar liabilities, it does not permit netting of the two for hedge accounting purposes. IAS 39.133 provides an example of how a bank might assess its risk on a net basis (similar assets and liabilities grouped together) and then	As net hedging is not allowed, this brings no new requirements.

	qualify for hedge accounting by hedging on a gross basis.	
Paragraph 128 **Question 128- 1** **Hedge accounting: prepayable financial asset** **If the issuer has the right to prepay a financial asset, can the investor designate the cash flows after the prepayment date as part of the hedged item?**	No, unless a comparable option exists in the hedging instrument, because the cash flows after the prepayment date would not qualify as ‘‘ highly probable’’.	Split between highly probable and not highly probable cash flows for hedging measurement.
Paragraph 128 **Question 128- 2** **Partial term hedging** **IAS 39.145 indicates that a hedging relationship may not be designated for only a portion of the time period in which a hedging instrument is outstanding. Is it permitted to designate a derivative as hedging only a portion of the time period to**	Yes. A financial instrument may be a hedged item for only a portion of its cash flows or fair value, if effectiveness can be measured. To illustrate: Company A acquires a 10 per cent fixed rate government bond with a remaining term to maturity of ten years. Company A classifies the bond as available- for- sale. To hedge	Requires a track and flag between hedged item and hedging instrument.

maturity of a hedged item?	itself against fair value exposure on the bond associated with the present value of the interest rate payments until year five, Company A acquires a five-year pay- fixed receive-floating swap. The swap may be designated as hedging the fair value exposure of the interest rate payments on the government bond until year five and the change in value of the principal payment due at maturity to the extent affected by changes in the yield curve relating to the five years of the swap.	
Paragraph 131 **Question 131- 1** **Hedges of more than one type of risk** **Normally a hedging relationship is designated between an entire hedging instrument and a hedged item so that there is a single**	No. For example, companies commonly use a combined interest rate and currency swap to convert a variable rate position in a foreign currency to a fixed rate position in the reporting currency. IAS 39.131 allows the swap to	Requires that it could be possible that one hedging instrument's effect be split to accommodate different risks and therefore different accounting treatment.

measure of fair value for the hedging instrument. Does this preclude designating a single financial instrument simultaneously as a hedging instrument in both a cash flow hedge and a fair value hedge?	be designated separately as a fair value hedge of the currency risk and a cash flow hedge of the interest rate risk.	
If a single financial instrument is a hedging instrument in two different hedges, is special disclosure required?	IAS 39.169 requires disclosures separately for designated fair value hedges, cash flow hedges, and hedges of a net investment in a foreign entity. The instrument in question would be reported in the IAS 39.169 disclosures separately for each type of hedge.	Requires separate disclosure for different effects of one hedging instrument. The system will have to be able to split the results from the one instrument to the different classes of hedges.
Paragraph 132 Question 132- 1 Hedge accounting: stock index If similar financial	No, the statement in IAS 39.132 refers only to some situations. Hedge accounting would be allowed for the portfolio of shares if an	Group instruments together. Calculate hedge effectiveness by using net movements of the share portfolio.

instruments are aggregated and hedged as a group, IAS 39.132 suggests that the change in fair value attributable to the hedged risk for each individual item in the group will be expected to be approximately proportional to the overall change in fair value attributable to the hedged risk of the group. Sometimes companies acquire a portfolio of shares to replicate a stock index and a put option on the index to protect themselves from fair value losses. Would hedge accounting be prohibited because the value of individual shares will not be expected to move proportionally with the index?	enterprise acquires a sufficient number of shares in appropriate proportions that the overall change in fair value of the portfolio will be fully correlated with the index.	
Paragraph 134 Question 134- 1	Yes, hedge accounting is prohibited in such cases	No new requirements identified from this guidance

Internal hedges **Some enterprises use internal contracts (internal hedges) to transfer interest rate risk exposures between different divisions. Does IAS 39.134 prohibit hedge accounting in such cases? If yes, how could hedge accounting be achieved?**	unless the risk is ultimately offset with an external party. This is consistent with the principles of preparing consolidated financial statements, whereby ‘‘ intragroup balances and intragroup transactions and resulting unrealised profits should be eliminated in full’’ (IAS 27. 17). To illustrate: The banking division of Bank A enters into an internal interest rate swap with the trading division of the same bank. The purpose is to hedge the interest rate risk exposure of a loan (or group of similar loans) in the loan portfolio. Under the swap, the banking division pays fixed interest payments to the trading division and receives variable interest rate payments in return. If a hedging instrument is not	point.

	acquired from an external party, IAS 39 does not allow hedge accounting treatment for the hedging transaction undertaken by the banking and trading divisions. IAS 39.134 indicates that only derivatives that involve a party external to the enterprise can be designated as hedging instruments and, further, that any gains or losses on intra- group or intra- company transactions should be eliminated on consolidation. Therefore, transactions between different divisions within Bank A do not qualify for hedge accounting treatment in the financial statements of Bank A even if an exposure of one of the divisions is hedged. Similarly, transactions between different companies within a group do not qualify	

	for hedge accounting treatment on consolidation. However, if in addition to the internal swap in the above example the trading division enters into an interest rate swap or other contract with an external party that offsets the exposure hedged in the internal swap, hedge accounting is permitted under IAS 39. For the purposes of IAS 39, the hedged item is the loan (or group of similar loans) in the banking division and the hedging instrument is the external interest rate swap or other contract. The trading division may aggregate several internal swaps or portions thereof and enter into offsetting external contracts. Under IAS 39, such external hedging transactions may	

	qualify for hedge accounting treatment provided that the hedged items in the banking division are identified and the other conditions for hedge accounting are met. It should be noted, however, that IAS 39.127 does not permit hedge accounting treatment for held- to- maturity investments if the hedged risk is the exposure to interest rate changes.	
Paragraph 137 **Question 137- 1** **Fair value hedge: risk that could affect reported income** **Is fair value hedge accounting permitted for exposure to interest rate risk in originated fixed rate loans?**	Yes. Under IAS 39, originated loans are carried at amortised cost. Banking institutions in many countries hold the bulk of their originated loans until maturity. Thus, changes in the fair value of such loans that are due to changes in market interest rates will not affect reported net income. IAS 39.137 indicates that a fair value hedge is a hedge of the	

	exposure to changes in fair value that is attributable to a particular risk and that will affect reported net income. Therefore, this paragraph may appear to preclude fair value hedge accounting for originated loans. However, it follows from IAS 39.127 that originated loans can be hedged items with respect to interest rate risk since they are not designated as held- to- maturity investments. The enterprise could sell them and the change in fair values would affect earnings. Thus, fair value hedge accounting is permitted for originated loans.	
Paragraph 137 **Question 137- 2** **Cash flow hedges** **Is hedge accounting allowed for a hedge of an anticipated fixed rate debt** **issuance?**	Yes. This would be a cash flow hedge of a forecasted transaction that will affect reported net profit or loss (IAS 39.137(b)) provided that the conditions in IAS 39.142 are met. To	A hedging instrument's effects should be tracked and flag in order to be linked to the issuance of the debt. The original expectations of the debt issuance (interest

	illustrate: Company R periodically issues new bonds to refinance maturing bonds, provide working capital, and for various other purposes. When Company R decides it will be issuing bonds, it may hedge the risk of changes in the long- term interest rate from the date it decides to issue the bonds to the date the bonds are issued. If long- term interest rates go up, the bond will be issued either at a higher rate or with a higher discount or smaller premium than was originally expected. The higher rate being paid or decrease in proceeds is normally offset by the gain on the hedge. If long- term interest rates go down, the bond will be issued either at a lower rate or with a higher premium or a	rate, premium or discount) should be documented in order to measure effectiveness of hedge.

	smaller discount than was originally expected. The lower rate being paid or increase in proceeds is normally offset by the loss on the hedge. For example, in August 2000 Company R decided it would issue 200 million 7- year bonds in January 2001. Company R performed historical correlation studies and determined that a 7- year treasury bond adequately correlates to the bonds Company R expected to issue, assuming a hedge ratio of 0.93 futures contracts to one debt unit. Therefore, Company R hedged the anticipated issuance of the bonds by selling (shorting) 186 million worth of futures on 7- year treasury bonds. From August 2000 to January 2001 interest rates increased. The short	

	futures positions were closed in January 2001, the date the bonds were issued, and resulted in a 1. 2 million gain which will offset the increased interest payments on the bonds and, therefore, will affect net profit or loss over the life of the bonds. The hedge qualifies as a cash flow hedge of the interest rate risk on the forecasted debt issuance.	
Paragraph 137 **Question 137- 3** **Hedge accounting: unrecognised assets** **Is hedge accounting treatment permitted for a hedge of the fair value exposure of core deposit intangibles?**	No. To illustrate: Bank C has significant deposit relationships. These are viewed by management as a significant intangible asset. However, core deposit intangibles are not recognised as assets (or negative liabilities) under current IASC standards. Because the intangible asset is unrecorded, it cannot be designated as a hedged	

	item. If Bank C had paid a premium to purchase the core deposits and had recorded it has a core deposit intangible asset, that asset could be designated as the hedged item with the hedged risk being the change in fair value of the asset. However, it may be difficult to obtain an instrument that would offset the change in value, and it may be difficult to measure the change in value reliably.	
Paragraph 137 **Question 137- 4** **Hedge accounting: hedging of future foreign currency revenue streams** **Is hedge accounting permitted for a currency borrowing that hedges an expected but not contractual revenue stream in foreign**	Yes, if the revenues are highly probable. Under IAS 39.137(b) a hedge of an anticipated sale may qualify as a cash flow hedge. For instance, an airline company may use sophisticated models based on past experience and economic data to project its	Sophisticated models and documentation should be in place in order to prove that revenue streams are "highly probable."

currency?	revenues in various currencies. If it can demonstrate that forecasted revenues for a period of time into the future in a particular currency are ‘‘ highly probable’’, as required by IAS 39.142(c), it may designate a currency borrowing as a cash flow hedge of the future revenue stream. The portion of the gain or loss on the borrowing that is determined to be an effective hedge is recognised directly in equity through the statement of changes in equity until the revenues occur. It is unlikely that an enterprise can reliably predict 100 per cent of revenues for a future year. On the other hand, it is possible that a portion of predicted revenues, normally those expected in the short- term,	

	will meet the " highly probably'' criterion.	
Paragraph 142 **Question 142- 1** **Documentation of hedging relationships** **Company A has short- term commercial paper (CP) borrowings. It hedges the interest rate risk on the forecasted rollover of CP by acquiring a pay 7 per cent fixed, receive 30- day CP interest rate swap.** **How should this hedging relationship be documented?**	The following written documentation prepared by Company A at the date the hedge is initiated would be consistent with the requirements of IAS 39: To: Company A Hedging Files Date: 1/ 1/ x0 On 1/ 1/ x0, Company A entered into a swap on a 100 million notional amount to pay seven per cent fixed and receive 30- day CP interest rate. The swap is designated as a cash flow hedge of the interest rate risk on the forecasted rollover of a specified "core" 100 million layer of 30- day CP borrowings. The hedge will be assessed for effectiveness using the short-cut method (assumption of no ineffectiveness as described in	The following written documentation prepared by Company A at the date the hedge is initiated would be consistent with the requirements of IAS 39: To: Company A Hedging Files Date: 1/ 1/ x0 On 1/ 1/ x0, Company A entered into a swap on a 100 million notional amount to pay seven per cent fixed and receive 30- day CP interest rate. The swap is designated as a cash flow hedge of the interest rate risk on the forecasted rollover of a specified "core" 100 million layer of 30- day CP borrowings. The hedge will be assessed for effectiveness using the short-cut method (assumption of no ineffectiveness as described in

	IAS 39.151) because all of the critical terms of the hedged item (the specified "core" layer of CP) and the hedging instrument match. Company A specified that the swap was designated against the specified '' core'' layer of the commercial paper borrowings. It is necessary to specify which portion (layer) is being hedged when the entire asset, liability, firm commitment, or forecasted transaction is not being hedged. Because the critical terms of the hedged item and hedging instrument are the same, Company A can assume 100 per cent effectiveness. If the terms of the hedge were not the same, the company would be required to specify how effectiveness will be	IAS 39.151) because all of the critical terms of the hedged item (the specified "core" layer of CP) and the hedging instrument match. Company A specified that the swap was designated against the specified '' core'' layer of the commercial paper borrowings. It is necessary to specify which portion (layer) is being hedged when the entire asset, liability, firm commitment, or forecasted transaction is not being hedged. Because the critical terms of the hedged item and hedging instrument are the same, Company A can assume 100 per cent effectiveness. If the terms of the hedge were not the same, the company would be required to specify how effectiveness will be

	measured.	measured.
Paragraph 142 **Question 142- 2** **Hedge accounting: forecasted transaction** **For cash flow hedges, a forecasted transaction that is subject to a hedge must be highly probable. How should the term " highly probable'' be interpreted?**	The term '' highly probable'' indicates a significantly greater likelihood of occurrence than the term '' more likely than not''. An assessment of the likelihood that a forecasted transaction will take place is not based solely on management's intent because intent is not verifiable. A transaction's probability should be supported by observable facts and the attendant circumstances. In assessing the likelihood that a transaction will occur, consideration should be given to the following circumstances: (a) the frequency of similar past transactions; (b) the financial and operational ability of the entity to carry out the transaction;	"Highly probable: " Requires assessments of probability of future cashflows. Measurement of intent. Measurement of frequency of similar past transactions. An assessment has to be made of operational and financial ability before a cash flow can be seen as highly probable. A measurement must be made to determine the influence on the business should the transaction not be made. An assessment of committed resources should be made. A business plan should exist.

	(c) substantial commitments of resources to a particular activity (for example, a manufacturing facility that can be used in the short run only to process a particular type of commodity); (d) the extent of loss or disruption of operations that could result if the transaction does not occur; (e) the likelihood that transactions with substantially different characteristics might be used to achieve the same business purpose (for example, an entity that intends to raise cash may have several ways of doing so, ranging from a short- term bank loan to a common stock offering); and (f) the enterprise's business plan. The length of time until a	

	forecasted transaction is projected to occur is also a consideration in determining probability. Other factors being equal, the more distant a forecasted transaction is, the less likely it is that the transaction would be considered probable and the stronger the evidence that would be needed to support an assertion that it is probable. For example, a transaction forecasted to occur in five years may be less likely than a transaction forecasted to occur in one year. However, forecasted interest payments for the next 20 years on variable- rate debt typically would be probable if supported by an existing contract. In addition, other factors being equal, the greater the physical quantity or future value of a forecasted	

	transaction in proportion to the enterprise's total volume of transactions of the same nature, the less likely it is that the transaction would be considered highly probable and the stronger the evidence that would be required to support an assertion that it is highly probable. For example, less evidence generally would be needed to support forecasted sales of 100,000 units in the next month than 950,000 units in that month when recent sales have averaged 950,000 units per month for the past 3 months. A history of having designated hedges of forecasted transactions and then determining that the forecasted transactions are no longer expected to occur would call into question both	

	an entity's ability to accurately predict forecasted transactions and the propriety of using hedge accounting in the future for similar forecasted transactions.	
Paragraph 142 **Question 142- 3** **Hedging on after- tax basis** **Hedging is often done on an after- tax basis. Is hedge effectiveness assessed after taxes?**	IAS 39 permits, but does not require, assessment of hedge effectiveness on an after- tax basis. If the hedge is undertaken on an after- tax basis, it is so designated at inception as part of the formal documentation of the hedging relationship and strategy.	Where after-tax hedging is elected, there is a requirement that for each hedged item, the after-tax effect should be calculated separately.
Paragraph 142 **Question 142- 4** **Hedge effectiveness** **IAS 39.142(b) requires that the hedge is expected to be highly effective.** **Should expected hedge effectiveness be assessed separately for each period or cumulatively over**	Expected hedge effectiveness may be assessed on a cumulative basis if the hedge is so designated and that is incorporated into the appropriate hedging documentation. Therefore, even if a hedge is not expected to be highly effective in a particular period,	Measurement of hedge effectiveness spanning over financial periods. Ineffectiveness must be identified and recognised in the income statement as soon as it occurs.

the life of the hedging relationship?	hedge accounting is not precluded if effectiveness is expected to remain sufficiently high over the life of the hedging relationship. However, any ineffectiveness is required to be recognised in earnings as it occurs. For instance, a company designates a LIBOR- based interest rate swap as a hedge of borrowing whose interest is UK base rates plus a margin. UK base rates change, perhaps, once each quarter or less, in increments of 25 to 50 basis points, while LIBOR changes daily. Over a one to two year period, the hedge is expected to be almost perfect. However, there will be quarters when the UK base rate does not change at all, while LIBOR has changed	

	significantly. This would not necessarily preclude hedge accounting.	
Paragraph 146 **Question 146- 1** **Hedge effectiveness** **How should hedge effectiveness be measured for the purposes of initially qualifying for hedge accounting and for continued qualification?**	IAS 39 does not provide specific guidance about how effectiveness tests are performed. IAS 39.146 indicates that a hedge is normally regarded as highly effective if, at inception and throughout the life of the hedge, the enterprise can expect that the change in fair values or cash flows of the hedging instrument and the hedged item will '' almost fully offset''. In addition, IAS 39.146 requires that actual results are within a range of 80%- 125%. The appropriateness of a given method of assessing hedge effectiveness will depend on the nature of the risk being hedged and the type of hedging instrument used. The method	Expected cash-flows and fair-values of hedges and hedging instruments should be measurable. Actual hedge effectiveness should be measured within the prescribed range. Documentation of hedge effectiveness measurement techniques.

	of assessing effectiveness must be reasonable and consistent with other similar hedges unless different methods are explicitly justified. An enterprise is required to document at the inception of the hedge how effectiveness will be assessed and then apply that effectiveness test on a consistent basis for the duration of the hedge. Several mathematical techniques can be used to measure hedge effectiveness, including ratio analysis, that is, a comparison of hedging gains and losses to the corresponding gains and losses on the hedged item at a point in time, and statistical measurement techniques such as regression analysis. If regression analysis is used, the entity's documented policies for	

	assessing effectiveness must specify how the results of the regression will be assessed.	
Paragraph 146 **Question 146- 2** **Hedge effectiveness: less than 100 per cent offset** **If a cash flow hedge is considered to be highly effective because the actual risk offset is within the allowed 80%- 125% range of deviation from full offset, is the gain or loss on the ineffective portion of the hedge reported in equity?**	No. IAS 39.158(a) indicates that only the effective portion is recognised directly in equity. IAS 39.158(b) requires that the ineffective portion be reported in net profit or loss or in accordance with IAS 39.103 in the limited circumstances in which the hedging instrument is not a derivative.	Split between the effective and ineffective portions of hedges.
Paragraph 100 **Question 100- 1** **Fair value measurement: control premium associated with large holding** **Company A holds 15 per cent of the share capital in Company B. Since the ownership of shares in**	Under IAS 39.99, there is a presumption that a published price quotation in an active market is the best estimate of fair value. Therefore, Company A uses the published price quotation (100). Company A cannot depart from the	No new requirements. Handled under fair value section.

Company B otherwise is widely dispersed, Company A is able to exercise influence over the operations of Company B. The shares are publicly traded in an active market. The currently quoted price is 100. Daily trading volume is 0.1 per cent of outstanding shares. Because Company A believes that the fair value of the Company B shares it owns, if sold as a block, is greater than the quoted market price, Company A obtains several independent estimates of the price it would obtain if it sells its holding. These estimates indicate that Company A would be able to obtain a price of 105, that is, a 5 per cent "control premium" above the quoted price. Which	quoted market price solely because independent estimates indicate that Company A could obtain a higher price by selling the holding as a block. However, if Company A could present objective, reliable evidence validating a higher amount, IAS 39.98 provides for an adjustment to the quoted price. Unless Company A has entered into a contract with a third party to sell the shares at a fixed price in the immediate future, it would be very difficult to justify an adjustment to the quoted price.	

figure should Company A use for measuring its holding at fair value?		
Paragraph 127 **Question 127- 2** **Held- to- maturity investments: hedging variable rate interest rate Payments** **IAS 39.127 states that a held- to- maturity investment cannot be a hedged item with respect to interest rate risk "because designation of an investment as held- to- maturity involves not accounting for associated changes in interest rates". Thus, an enterprise cannot designate a pay- fixed, receive- variable interest rate swap as a fair value hedge of a fixed rate held- to- maturity**	No. IAS 32. 43(a)(ii) defines interest rate risk as the risk that the value of a financial instrument will fluctuate due to changes in market interest rates. Under this definition of interest rate risk, a floating rate held- to- maturity investment does not contain any interest rate risk, only cash flow risk, provided the floating rate specified in the instrument reflects the market's required rate of return on the debt investment. However, this definition is not applicable in the context of IAS 39. IAS 39 uses the term "interest rate risk" in a more general manner including the risks associated	No specific in-scope system requirements to highlight.

investment. Can an enterprise designate a pay-variable, receive- fixed interest rate swap as a cash flow hedge of a variable rate held- to-maturity investment?	with changes in both fair value and cash flows due to changes in interest rates. Therefore, it is inconsistent with the designation of a debt investment as being held- to-maturity to designate a swap as a cash flow hedge of the debt investment's variable interest rate payments.	
Paragraph 128 **Question 128- 3** **Hedge accounting: risk components** **Does IAS 39 permit hedge accounting for components of risk, such as the risk free interest rate or credit spreads, for a particular asset or liability?**	Yes. IAS 39 does not restrict hedge accounting to hedges of the entire risk of changes in fair value or the entire exposure to interest rate risk, currency risk, counterparty credit risk or other risks. It permits risk components to be designated as hedged risks, for instance, the exposure to changes in fair value due to changes in three-month interbank offered rates associated with a	The split of possible hedge components could be required and designated as hedged and unhedged risks.

	financial asset or financial liability, provided hedge effectiveness can be reliably measured and the other hedge accounting conditions in IAS 39.142 are met.	
Paragraph 134 **Question 134- 2** **Internal contracts: foreign currency cash flow hedge** **If a foreign currency contract (such as a derivative) has been entered into with another division or company of a consolidated group (such as a treasury centre) can the internal contract be designated as a hedging instrument in a foreign currency cash flow hedge of a forecasted borrowing, purchase, or sale or an unrecognised firm commitment in the consolidated financial**	No. Under IAS 39.134 only derivatives that involve a party external to the enterprise can be designated as hedging instruments. Therefore, a foreign currency contract that has been entered into with another division or company of a consolidated group (such as a treasury centre) cannot be designated as a hedging instrument in a foreign currency cash flow hedge of a forecasted borrowing, purchase, or sale or an unrecognised firm commitment in the consolidated financial statements.	Dealt with earlier in chapter.

statements?	Nevertheless, hedge accounting can be achieved under IAS 39 if the treasury centre enters into one or more foreign currency contracts with unrelated third parties that offset the exposure that results from the internal contract provided the underlying forecasted borrowing, purchase, or sale or unrecognised firm commitment is designated as the hedged item. For risk management purposes, the treasury centre may aggregate several internal contracts for the purposes of determining the amount to be hedged externally for each foreign currency. To qualify for hedge accounting, the enterprise designates a specified part of the underlying forecasted borrowings, purchases, or sales or unrecognised firm	

	commitments on a gross basis as the hedged position (IAS 39.133). Hedge accounting cannot be applied in consolidated financial statements if an internal hedging transaction is not offset by a third- party contract.	
Paragraph 134 **Question 134- 3** **Intra- group and intra- company hedging transactions** **An Australian company, whose reporting currency is the Australian dollar, has debt denominated in Japanese yen. The Australian company is wholly owned by a Swiss company, which prepares consolidated financial statements (which include the Australian subsidiary) in Swiss**	Yes, the hedge can qualify for hedge accounting. The yen-denominated debt on the Australian company's books is a monetary item. Since the Australian company did not hedge the foreign currency exchange risk, the effects of exchange rate changes between the Australian dollar and the yen are reported in the Australian company's net profit or loss and, therefore, would also affect consolidated net profit or loss. IAS 39 does not require that the operating unit	Tracking on hedging relationships across companies within a group could become a necessity.

francs. The Swiss parent company enters into a forward contract to hedge the change in yen relative to the Australian dollar. Can that hedge qualify for hedge accounting in the consolidated financial statements, or must the operating unit within a consolidated group that has the foreign currency exposure be a party to the hedging transaction?	that is exposed to the risk being hedged be a party to the hedging instrument.	
Would the answer change if the Swiss parent entered into a forward contract to hedge the change in the Swiss franc relative to the Australian dollar?	The answer would change if the Australian subsidiary is classified as a foreign entity under IAS 21. In that case, the hedge would not qualify for hedge accounting. Under IAS 21. 30(c), all exchange differences resulting from translating the financial statements of a foreign entity for incorporation in a	Deals with requirements of IAS 21. Out-of-scope.

	parent's financial statements are "classified as equity until disposal of the net investment". Under IAS 39, the hedged item's risk exposure must affect net profit or loss (see IAS 39.142(c) and also IAS 39.122).	
Paragraph 137 **Question 137- 5** **Hedging relationships: option premium** **When a purchased (written) option is designated as a hedging instrument, may the option premium paid (received) be included in defining the risk exposure being hedged?**	No. An enterprise cannot include the option premium paid (received) in defining the risk exposure being hedged by the option, because a financial instrument cannot be a hedge of itself. While IAS 39.144 permits splitting the intrinsic value and time value of an option and designating only the change in the intrinsic value as the hedging instrument, it is inappropriate to split for hedge accounting purposes an option into the premium paid or received and the change in fair value of the	No new in-scope requirements identified.

	option subsequent to acquisition. An enterprise cannot exclude an amount equal to the option premium paid or received from the hedge effectiveness assessment simply by including the option premium paid or received in the definition of the risk exposure being hedged.	
Paragraph 146 **Question 146- 3** **Hedge effectiveness: "underhedging"** **According to IAS 39.146, actual results must be within a range of 80 per cent to 125 per cent throughout the life of the hedge for a hedge to be regarded as highly effective. Is it permitted to purposely hedge less than 100 per cent of the exposure to losses, such as 85 per cent, and designate**	No. IAS 39.128 allows hedge accounting for the risks associated with only a portion of the cash flows or fair value of a hedged item. Therefore, designating as a hedged item only 85 per cent of the exposure to loss would be permitted. However, once that designation is made, the 85 per cent exposure becomes the entire (100 per cent) basis for assessing hedge effectiveness. In other words,	Pre-hedging designation percentages must be made and entered into the system in order to measure hedge effectiveness.

the hedge as a hedge of 100 per cent of the exposure?	the 80 per cent to 125 per cent range would apply to the designated 85 per cent portion of the hedged item. To qualify for hedge accounting, the hedge must be "expected to be highly effective" in achieving offsetting changes (IAS 39.142(b)). IAS 39.146 defines "expected to be highly effective" as an expectation that the hedging instrument will "almost fully offset" the exposure to losses on the hedged item. The 80 per cent to 125 per cent threshold in IAS 39.146 is for comparing outcome to expectation. The expected outcome at inception should be nearly 100 per cent effectiveness in relation to the 85 per cent of the exposure being hedged.	
Paragraph 147	No. IAS 39 does not permit an	No new requirements

Question 147- 1 **Short- cut method: assuming perfect hedge effectiveness** **IAS 39.147 indicates that if the principal terms of the hedging instrument** **And of the entire hedged asset or liability or hedged forecasted** **Transaction are the same, the changes in fair value and cash flows** **Attributable to the risk being hedged offset fully. For instance, an** **Interest rate swap is likely to be an effective hedge if the notional and** **Principal amounts, term, repricing dates, dates of interest and principal** **Receipts and payments, and basis for measuring interest rates are the** **Same for the hedging instrument and the hedged item. If the principal**	enterprise to use any short-cut method to assessing hedge effectiveness. IAS 39.142(e) requires an enterprise to assess hedges on an ongoing basis for hedge effectiveness. It cannot assume hedge effectiveness even if the principal terms of the hedging instrument and the hedged item are the same, since hedge ineffectiveness may arise because of critical terms such as the liquidity of the instruments or their credit risk.	identified.

Terms of the hedging instrument and of the entire hedged asset or liability Or hedged forecasted transaction are the same, can an enterprise assume Perfect hedge effectiveness without further effectiveness testing?		
Paragraph 121 Question 121- 1 Hedge accounting: management of interest rate risk in financial institutions Banks and other financial institutions often manage their exposure to interest rate risk on a net basis for all or parts of their activities. They have systems to accumulate critical information throughout the enterprise about their financial assets, financial liabilities, and forward	Yes. However, the net position that is hedged for risk management purposes must be redefined if it is to qualify for hedge accounting as a gross position related to assets, liabilities, forecasted cash inflows, or forecasted cash outflows giving rise to the net exposure (IAS 39.133 and IAS 39.143). It is not possible to designate a net position as a hedged item under IAS 39 because of the inability to associate hedging gains and losses with a specific	Where interest rate exposure is hedged as a grossed-up risk: - Redefine net positions to gross positions and; - Interest rate exposure must be grossed up in total.

commitments, including loan commitments. This information is used to estimate and aggregate cash flows and to schedule such estimated cash flows into the applicable future periods in which they are expected to be paid or received. The systems generate estimates of cash flows based on the contractual terms of the instruments and other factors, including estimates of prepayments and defaults. For risk management purposes, many financial institutions use derivative contracts to offset some or all exposure to interest rate risk on a net basis. If a financial institution manages interest rate risk on a net basis, can its activities potentially qualify for hedge accounting under	item being hedged and, correspondingly, to objectively determine the period in which such gains and losses should be recognised in net profit or loss. Hedging a net exposure to interest rate risk can often be defined and documented to meet the qualifying criteria for hedge accounting in IAS 39.142 if the objective of the activity is to offset a specific identified and designated risk exposure that ultimately affects the enterprise's net profit or loss (IAS 39.149) and the enterprise designates and documents its interest rate risk exposure on a gross basis. Also, to qualify for hedge accounting the information systems must capture sufficient information about the amount and timing of cash flows and	

IAS 39?	the effectiveness of the risk management activities in accomplishing their objective. The key factors an enterprise must consider for hedge accounting purposes if it manages interest rate risk on a net basis are discussed in Question 121- 2.	
Paragraph 121 **Question 121- 2** **Hedge accounting considerations when interest rate risk is managed on a net basis** **If an enterprise manages its exposure to interest rate risk on a net basis, what are the key issues the enterprise should consider in defining and documenting its interest rate risk management activities to qualify for hedge accounting?**	Issues 121- 2- a to 121- 2- l below address the key issues for consideration. First, Issues 121- 2- a and 121- 2- b discuss the designation of derivatives used in interest rate risk management activities as fair value hedges or cash flow hedges. As noted there, hedge accounting criteria and accounting consequences differ between fair value hedges and cash flow hedges. Since it may be easier to achieve hedge accounting treatment if	See specific requirements outlined under answers referred to.

	derivatives used in interest rate risk management activities are designated as cash flow hedging instruments, Issues 121- 2- c to 121- 2- l expand on various aspects of the accounting for cash flow hedges. Issues 121- 2- c to 121- 2- f consider the application of the hedge accounting criteria for cash flow hedges in IAS 39, while Issues 121- 2- g to 121- 2- h discuss the required accounting treatment. Finally, Issues 121- 2- i to 121- 2- l elaborate on other specific issues relating to the accounting for cash flow hedges.	
Issue 121- 2- a: Can a derivative that is used to manage interest rate risk on a net basis be designated as a fair value hedge or a cash flow hedge of a	Both types of designation are possible under IAS 39. An enterprise may designate the derivative used in interest rate risk management activities either	No new in-scope requirements identified.

gross exposure under IAS 39?	as a fair value hedge of assets or liabilities or as a cash flow hedge of forecasted transactions, such as the anticipated reinvestment of cash inflows, the anticipated refinancing or rollover of a financial liability, and the cash flow consequences of the resetting of interest rates for an asset or a liability. Firm commitments to purchase or sell assets at fixed prices create fair value exposures, but are accounted for as cash flow hedges (IAS 39.137(b)). In economic terms, it does not matter whether the derivative instrument is considered a fair value hedge or a cash flow hedge. Under either perspective of the exposure, the derivative has the same economic effect of reducing the. Exposure. For example, a	

	receive- fixed, pay- variable interest rate swap can be considered to be a cash flow hedge of a variable rate asset or a fair value hedge of a fixed rate liability. Under either perspective, the fair value or cash flows of the interest rate swap offsets the exposure to interest rate changes. However, accounting consequences differ depending on whether the Derivative is designated as a fair value hedge or a cash flow hedge, as Discussed in Issue 121- 2- b.	
Issue 121- 2- b: What are critical considerations in deciding whether a derivative that is used to manage interest rate risk on a net basis should be designated as a fair value hedge or a cash flow hedge of a gross exposure?	Critical considerations relate to the assessment of hedge effectiveness in the presence of prepayment risk and the ability of the information systems to attribute fair value or cash flow changes of hedging instruments to fair value	

	or cash flow changes, respectively, of hedged items, as discussed below. For accounting purposes, the designation of the derivative as hedging a fair value exposure or a cash flow exposure is important because both the qualification requirements for hedge accounting and the recognition of hedging gains and losses differ for each of these categories. It is often easier to demonstrate high effectiveness for a cash flow hedge than for a fair value hedge.	
Effects of Prepayments	Prepayment risk inherent in many financial instruments affects the fair value of an instrument and the timing of its cash flows and impacts on the offset test for fair value hedges and the probability test for cash	Measurements of probabilities of pre-payments should be made if the pre-payment risk is to be hedged.

	flow hedges, respectively. Effectiveness often is more difficult to achieve for fair value hedges than for cash flow hedges when the instrument being hedged is subject to prepayment risk. For a fair value hedge to qualify for hedge accounting, the changes in the fair value of the derivative hedging instrument must be expected to be highly effective in offsetting the changes in the fair value of the hedged item (IAS 39.142(b)). This test may be difficult to meet if, for example, the derivative hedging instrument is a forward contract having a fixed term and the financial assets being hedged are subject to prepayment by the borrower. In economic terms, a forward derivative instrument could be	

	used to hedge assets that are subject to prepayment but it would be effective only for small movements in interest rates. A reasonable estimate of prepayments can be made for a given interest rate environment and the derivative position can be adjusted as the interest rate environment changes. However, for accounting purposes, the expectation of effectiveness has to be based on existing fair value exposures and the potential for interest rate movements without consideration of future adjustments to those positions. The fair value exposure attributable to prepayment risk generally can be hedged with options. For a cash flow hedge to qualify for hedge accounting,	

	the forecasted cash flows, including the reinvestment of cash inflows or the refinancing of cash outflows, must be highly probable (IAS 39.142(c)) and the hedge expected to be highly effective in achieving offsetting changes in the cash flows of the hedged item and hedging instrument (IAS 39.142(b)). Prepayments affect the timing of cash flows and, therefore, the probability of occurrence of the forecasted transaction. If the hedge is viewed in economic terms on a net basis, an enterprise may have sufficient levels of highly probable cash flows on a gross basis to support the designation for accounting purposes of a portion of the gross cash flows as the hedged item, the amount of which is	

	equal to the net cash flows being hedged in economic terms.	
System Considerations	The accounting differs for fair value hedges and cash flow hedges. It is usually easier to use existing information systems to manage and track cash flow hedges than it is for fair value hedges. Under fair value hedge accounting, the assets or liabilities that are the subject of the hedge are remeasured for those changes in fair values during the hedge period that are attributable to the risk being hedged. Such changes adjust the carrying amount of the hedged items and, for interest sensitive assets and liabilities, result in an adjustment of the effective yield of the hedged item (IAS 39.153). For example, the	The system should be able to manage and track all cash flow hedges. It generally will be necessary to establish a system to track the changes in the fair value attributable to the hedged risk, associate those changes with individual hedged items, recompute the effective yield of the hedged items, and amortise the changes to net profit or loss over the life of the respective hedged item. To comply with the requirements for cash flow hedge accounting, it is necessary to determine when the adjustments to equity from changes in the fair

	fair value adjustment has to be allocated to the hedged assets in order to be able to recompute their effective yield, determine the subsequent amortisation of the fair value adjustment to net profit or loss, and determine the amount that should be recognised in net profit or loss when assets are sold (IAS 39.153 and IAS 39.157). To comply with the requirements for fair value hedge accounting, it generally will be necessary to establish a system to track the changes in the fair value. attributable to the hedged risk, associate those changes with individual hedged items, recompute the effective yield of the hedged items, and amortise the changes to net profit or loss over the life of the	value of a hedging instrument should be recognised in net profit or loss. The system used to determine the extent of the net exposure provides the basis for scheduling out the changes in the cash flows of the derivative and the recognition of such changes in net profit or loss.

	respective hedged item. Under cash flow hedge accounting, the cash flows relating to the forecasted transactions that are the subject of the hedge reflect changes in interest rates. The adjustment for changes in the fair value of a hedging derivative instrument is initially recognised in equity (IAS 39.158). To comply with the requirements for cash flow hedge accounting, it is necessary to determine when the adjustments to equity from changes in the fair value of a hedging instrument should be recognised in net profit or loss (IAS 39.162- 163). For cash flow hedges, it is not necessary to create a separate system to make this determination. The timing of the recognition in earnings is	

	predetermined when the hedge is associated with the exposure to changes in cash flows. The forecasted transactions that are being hedged are the changes in cash flows in specified future periods resulting from resetting of interest rates, reinvestments of cash inflows, and refinancing of cash outflows. IAS 39.162 specifies that the amounts recognised in equity should be included in net profit or loss in the same period or periods during which the hedged item affects net profit or loss. The system used to determine the extent of the net exposure provides the basis for scheduling out the changes in the cash flows of the derivative and the recognition of such changes in net profit or loss.	

Issue 121- 2- c: If a hedging relationship is designated as a cash flow hedge relating to changes in cash flows resulting from interest rate changes, what documentation is required by IAS 39.142(a)?	The following is required to be documented: *The hedging relationship* – The maturity schedule of cash flows used for risk management purposes to determine exposures to cash flow mismatches on a net basis would provide part of the documentation of the hedging relationship. *The enterprise's risk management objective and strategy for undertaking the hedge* -- – The enterprise's overall risk management objective and strategy for hedging exposures to interest rate risk would provide part of the documentation of the hedging objective and strategy. *The type of hedge* -- – The hedge is documented as a cash flow hedge. *The hedged item* -- – The	Directly from the answer, the following documentation is required: - The hedging relationship - The enterprise's risk management objective and strategy for undertaking the hedge. - The type of hedge. - The hedged item. - The hedged risk. - The hedging instrument. - The method of assessing effectiveness.

	hedged item is documented as a group of forecasted transactions (interest cash flows) that are expected to occur with a high degree of probability in specified future periods, for instance, scheduled on a monthly basis. The hedged item may include interest cash flows resulting from the reinvestment of cash inflows, including the resetting of interest rates on assets, or from the refinancing of cash outflows, including the resetting of interest rates on liabilities and rollovers of financial liabilities. As discussed in Issue 121- 2- e, the forecasted transactions meet the probability test if there are sufficient levels of highly probable cash flows in the specified future periods to encompass the amounts designated as being	

	hedged on a gross basis. *The hedged risk* --- The risk designated as being hedged is documented as a portion of the overall exposure to changes in a specified market interest rate, often the risk- free interest rate or an interbank offered rate, common to all items in the group. To help ensure that the hedge effectiveness test is met at inception of the hedge and subsequently, the designated hedged portion of the interest rate risk would be documented as being based off of the same yield curve as the derivative hedging instrument. *The hedging instrument* – Each derivative hedging instrument is documented as a hedge of specified amounts in specified future time periods	

	corresponding with the forecasted transactions occurring in the specified future periods designated as being hedged. *The method of assessing effectiveness* -- – The effectiveness test is documented as being measured by comparing the changes in the cash flows of the derivatives allocated to the applicable periods in which they are designated as a hedge to the changes in the cash flows of the forecasted transactions being hedged. Measurement of the cash flow changes is based on the applicable yield curves of the derivatives and hedged items. ***Issue 121- 2- d: If the hedging relationship is designated as a cash flow hedge, how does an enterprise satisfy the***	

	requirement for an expectation of high effectiveness in achieving offsetting changes in IAS 39.142(b)? An enterprise may demonstrate an expectation of high effectiveness by preparing an analysis demonstrating high historical and expected future correlation between the interest rate risk designated as being hedged and the interest rate index of the hedging instrument. Existing documentation of the hedge ratio used in establishing the derivative contracts may also serve to demonstrate an expectation of effectiveness.	
Issue 121- 2- e: If the hedging relationship is designated as a cash flow hedge, how does an enterprise demonstrate a	An enterprise may do this by preparing a cash flow maturity schedule showing that there exist sufficient aggregate gross	- Measurement of the probability of cash flows for cash flow hedging. - Measurement of intent.

high probability of the forecasted transactions occurring as required by IAS 39.142(c)?	levels of expected cash flows, including the effects of the resetting of interest rates for assets or liabilities, to establish that the forecasted transactions that are designated as being hedged are highly probable of occurring. Such a schedule should be supported by management's stated intent and past practice of reinvesting cash inflows and refinancing cash outflows. For instance, an enterprise may forecast aggregate gross cash inflows of 100 and aggregate gross cash outflows of 90 in a particular time period in the near future. In this case, it may wish to designate cash inflows of 10 as the hedged item in the future time period. If more than 10 of the forecasted cash inflows are contractually specified and	

	have low credit risk, the enterprise has very strong evidence to support an assertion that cash inflows of 10 are highly probable of occurring and the designation of those cash flows as being hedged. A high probability of the forecasted transactions occurring may also be demonstrated under other circumstances.	
Issue 121- 2- f: If the hedging relationship is designated as a cash flow hedge, how does an enterprise assess and measure effectiveness under IAS 39.142(d) and (e)?	Effectiveness is measured on a specified periodic basis, usually at the end of each month or other applicable reporting period, and whenever derivative positions designated as hedging instruments are changed. Changes in the cash flows of the derivative are computed and allocated to the applicable periods in which the derivative is designated as a	- Specify the hedging effectiveness testing period used. - Compare cash flows of designated derivative to computation of changes in cash flow of forecasted transactions. - The use of yield curves are required. - Maintenance of a hedge effectiveness schedule.

	hedge and are compared with computations of changes in the cash flows of the forecasted transactions. Computations are based on yield curves applicable to the hedged items and the derivative hedging instruments and applicable interest rates for the specified periods being hedged. The schedule used to determine effectiveness is maintained and used as the basis for determining the period in which the hedging gains and losses recognised initially in equity are reclassified out of equity and recognised in net profit or loss.	
Issue 121- 2- g: If the hedging relationship is designated as a cash flow hedge, how does an enterprise account for the	The hedge is accounted for as a cash flow hedge in accordance with the provisions in IAS 39.158- 162, as follows:	Split is required between effective and ineffective hedge portions.

hedge?	(a) the portions of hedging gains and losses determined to result from effective hedges are recognised in equity whenever effectiveness is measured; and (b) the ineffective portion of gains and losses resulting from derivatives is recognised in net profit or loss. IAS 39.162 specifies that the amounts recognised in equity should be included in net profit or loss in the same period or periods during which the hedged item affects net profit or loss. Accordingly, when the forecasted transactions occur, the amounts previously recognised in equity are recognised in net profit or loss, that is, the changes in the cash flows of the hedging instruments are	

	recognised in net profit or loss in the periods during which the hedging instruments were hedging an exposure. For instance, if an interest rate swap is designated as a hedging instrument of a series of forecasted cash flows, the changes in the cash flows of the swap are recognised in net profit or loss in the periods when the forecasted cash flows and the cash flows of the swap offset each other.	
Issue 121- 2- h: If the hedging relationship is designated as a cash flow hedge, what is the treatment of any net cumulative gains and losses recognised in equity if the hedging instrument is terminated prematurely, the hedge accounting criteria are no longer met, or	If the hedging instrument is terminated prematurely or the hedge no longer meets the criteria for qualification for hedge accounting, the net cumulative gain or loss reported in equity remains in equity until the forecasted transaction occurs (IAS 39.163(a) and (b)). If the	No new in-scope requirements.

the hedged forecasted transactions are no longer expected to take place?	hedged forecasted transactions are no longer expected to occur, the net cumulative gain or loss is reported in net profit or loss for the period (IAS 39.163(c)).	
Issue 121- 2- i: IAS 39.145 states that a hedging relationship may not be designated for only a portion of the time period in which a hedging instrument is outstanding. If the hedging relationship is designated as a cash flow hedge, and the hedge subsequently fails the test for being highly effective, does IAS 39.145 preclude redesignating the hedging instrument?	No. IAS 39.145 indicates that a derivative instrument may not be designated as a hedging instrument for only a portion of its remaining period to maturity. IAS 39.145 does not refer to the derivative instrument's original period to maturity. If there is a hedge effectiveness failure, the ineffective portion of the gain or loss on the derivative instrument is recognised immediately in net profit or loss (IAS 39.158) and hedge accounting based on the previous designation of the hedge relationship cannot be continued (IAS 39.163). In	No new in-scope requirements.

	this case, the derivative instrument may be redesignated as a hedging instrument in a new hedging relationship provided this hedging relationship satisfies the necessary conditions. The derivative instrument must be redesignated as a hedge for the entire time period it remains outstanding.	
Issue 121- 2- j: For cash flow hedges, IAS 39.160 indicates that "if the hedged firm commitment or forecasted transaction results in the recognition of an asset or liability, then at the time the asset or liability is recognised the associated gains or losses that were recognised directly in equity … should enter into the initial measurement of the … carrying	No. In the hedging relationship described in Issue 121- 2- c, the hedged item is a group of forecasted transactions consisting of interest cash flows in specified future periods. There is no basis adjustment because the hedged forecasted transactions do not result in the recognition of assets or liabilities and the effect of interest rate changes that are designated as being hedged is	No new in-scope requirements.

amount of the asset or liability'' (so- called "basis adjustment"). If a derivative is used to manage a net exposure to interest rate risk and the derivative is designated as a cash flow hedge of a forecasted cash flow on a gross basis, is there a basis adjustment when the forecasted cash flow occurs?	recognised in net profit or loss in the period in which the forecasted transactions occur. Although the types of hedges described herein would not result in basis adjustment, if instead the derivative is designated as a hedge of a forecasted purchase of a financial asset or issuance of a liability, the derivative gain or loss would be an adjustment to the basis of the asset or liability upon the occurrence of the transaction (IAS 39.160).	
Issue 121- 2- k: In the answer to Issue 121- 2- c above it was indicated that the designated hedged item is a portion of a cash flow exposure. Does IAS 39 permit a portion of a cash flow exposure to be designated as a hedged item?	Yes. IAS 39 does not specifically address a hedge of a portion of a cash flow exposure for a forecasted transaction. However, IAS 39.128 specifies that a financial asset or liability may be a hedged item with respect to the risks associated with only a portion	Where a portion of a cash flow is hedged, that portion should be clearly be identified from the rest of the cash flow and documented accordingly.

	of its cash flows or fair value, if effectiveness can be measured. The ability to hedge a portion of a cash flow exposure resulting from the resetting of interest rates for assets and liabilities suggests that a portion of a cash flow exposure resulting from the forecasted reinvestment of cash inflows or the refinancing or rollover of financial liabilities can also be hedged. The basis for qualification as a hedged item of a portion of an exposure is the ability to measure effectiveness. This is further supported by IAS 39.129, which specifies that a non- financial asset or liability can be hedged only in its entirety or for foreign currency risk but not for a portion of other risks because of the difficulty of	

	isolating and measuring the risks attributable to a specific risk. Accordingly, assuming effectiveness can be measured, a portion of a cash flow exposure of forecasted transactions associated with, for example, the resetting of interest rates for a variable rate asset or liability can be designated as a hedged item.	
Issue 121- 2- l: In the answer to Issue 121- 2- c above it was indicated that the hedged item is documented as a group of forecasted transactions. Since these transactions will have different terms when they occur, including credit exposures, maturities, and option features, how can an enterprise satisfy the tests in IAS	IAS 39.127 provides for hedging a group of assets, liabilities, firm commitments, or forecasted transactions with similar risk characteristics IAS 39.132 provides additional guidance and specifies that portfolio hedging is permitted if two conditions are met, namely: the individual items in the portfolio share the same risk for which they are designated	Directly from the answer, portfolio hedging requirements include: - The individual items in the portfolio must be shown to share the same risk for which they are designated and; - The change in the fair value attributable to the hedged risk for each individual item in the group will have to be

39.127 and IAS 39.132 requiring that the hedged group have similar risk characteristics?	and the change in the fair value attributable to the hedged risk for each individual item in the group will be expected to be approximately proportional to the overall change in fair value. When an enterprise associates a derivative hedging instrument with a gross exposure, the hedged item typically is a group of forecasted transactions. For hedges of cash flow exposures relating to a group of forecasted transactions, the overall exposure of the forecasted transactions and the assets or liabilities that are repricing may have very different risks. The exposure from forecasted transactions may differ based on the terms that are expected as they relate to credit exposures,	determined and measured against the change in fair value of the portfolio.

	maturities, option, and other features. Although the overall risk exposures may be different for the individual items in the group, a specific risk inherent in each of the items in the group can be designated as being hedged. The items in the portfolio do not necessarily have to have the same overall exposure to risk, providing they share the same risk for which they are designated as being hedged. A common risk typically shared by a portfolio of financial instruments is exposure to changes in the risk- free interest rate or to changes in a specified rate that has a credit exposure equal to the highest credit- rated instrument in the portfolio (that is, the instrument with the lowest credit risk). If the instruments	

	that are grouped into a portfolio have different credit exposures, they may be hedged as a group for a portion of the exposure. The risk they have in common that is designated as being hedged is the exposure to interest rate changes from the highest credit- rated instrument in the portfolio. This ensures that the change in fair value attributable to the hedged risk for each individual item in the group is expected to be approximately proportional to the overall change in fair value attributable to the hedged risk of the group. It is likely there will be some ineffectiveness if the hedging instrument has a credit quality that is inferior to the credit quality of the highest credit- rated instrument being	

	hedged, since a hedging relationship is designated for a hedging instrument in its entirety (IAS 39.144).	
Question 111- 4 **Impairment: unallocated losses** **Does IAS 39 permit an enterprise to recognise impairment or bad debt losses in excess of impairment losses that are determined based on objective evidence about impairment in identified individual financial assets or identified groups of similar financial assets?**	No. IAS 39 does not permit an enterprise to recognise impairment or bad debt losses in addition to those that can be attributed to individually identified financial assets or identified groups of similar financial assets (IAS 39.112) based on objective evidence about the existence of impairment in those assets (IAS 39.110). Amounts that an enterprise has set aside for additional, possible impairment in financial assets, such as unallocated reserves that cannot be supported by objective evidence about impairment, are not recognised as impairment or	No new in-scope requirements.

	bad debt losses under IAS 39.	
Paragraph 122 **Question 122- 1** **Hedging instrument: hedging using more than one derivative** **Does IAS 39 permit designating two or more derivatives that are acquired at the same or different times as hedging instruments for the same hedged item?**	Yes. Two or more derivatives, or proportions thereof, may be viewed in combination and jointly designated as the hedging instrument provided, however, that the derivatives offset only the risks of the hedged item (IAS 39.124). Two or more derivatives cannot be combined to offset the risks created by one of the derivatives being combined. IAS 39.127 does not provide for a derivative to be a hedged item, except in the limited circumstances of a written option offsetting a purchased option.	Where two or more derivatives are used to a hedge a specific risk, they will have to tracked and linked for effectiveness measurement purposes.
Paragraph 124 **Question 124- 1** **Hedge accounting: use of written options in combined**	It depends. An interest rate collar or other derivative instrument that includes a written option cannot be	No new in-scope requirements.

hedging instruments **Does IAS 39.124 preclude the use of an interest rate collar or other derivative instrument that combines a written option component and a purchased option component as a hedging instrument?**	designated as a hedging instrument if it is a net written option, because IAS 39.124 precludes the use of a written option as a hedging instrument unless it is designated as an offset to a purchased option. An interest rate collar or other derivative instrument that includes a written option may be designated as a hedging instrument, however, if the combination is a net purchased option or zero cost collar.	
What factors indicate that an interest rate collar or other derivative instrument that combines a written option component and a purchased option component is not a net written option?	The following factors taken together suggest that an interest rate collar or other derivative instrument that includes a written option is not a net written option: 1. No net premium is received either at inception or over the life of	No new in-scope requirements.

	the combination of options. The distinguishing feature of a written option is the receipt of a premium to compensate the writer for the risk incurred. 2. The combination of options is transacted as a single instrument with a single counterparty on the same day. 3. Except for the strike prices, the critical terms and conditions of the written option component and the purchased option component are the same (including underlying variable or variables, currency denomination, and maturity date). Also, the notional amount of the written option component is not greater than the notional amount of the purchased option component.	

Paragraph 127 **Question 127- 3** **Hedged items: purchase of held- to- maturity investment** **An entity forecasts the purchase of a financial asset that it intends to classify as held to maturity upon the occurrence of the forecasted transaction. It enters into a derivative contract to lock in the current interest rate and designates the derivative as a hedge of the forecasted purchase of the financial asset. Can the hedging relationship qualify for cash flow hedge accounting even though the asset will be classified as a held- to- maturity investment?**	Yes. With respect to interest rate risk, IAS 39 prohibits hedge accounting for financial assets that are classified as held to maturity (IAS 39.127). However, even though the enterprise intends to classify the asset as held to maturity, the instrument is not classified as such until the transaction occurs.	No new in-scope requirements.
Paragraph 127 **Question 127- 4**	Yes. IAS 39.127 states that a held- to- maturity investment	No new in-scope requirements.

Cash flow hedges: held- to-maturity investments **An entity owns a variable rate asset that it has classified as held to maturity. It enters into a derivative contract to lock in the current interest rate on the reinvestment of variable rate cash flows and designates the derivative as a cash flow hedge of the forecasted future interest receipts on debt instruments resulting from the reinvestment of interest receipts on the held-to- maturity asset. Can the hedging relationship qualify for cash flow hedge accounting even though the interest payments that are being reinvested come from an asset that is classified as held to maturity?**	cannot be a hedged item with respect to interest rate risk. Question 127- 2 specifies that this applies not only to fair value hedges, that is, hedges of the exposure to ‘‘ fair value interest rate risk’’ associated with held- to-maturity investments that pay fixed interest, but also to cash flow hedges, that is, hedges of the exposure to ‘‘ cash flow interest rate risk’’ associated with held- to-maturity investments that pay variable interest at current market rates. In this instance, the derivative is designated as an offset of the exposure to cash flow interest rate risk associated with forecasted future interest receipts on debt instruments resulting from the forecasted reinvestment of variable rate cash flows on the	

	held- to- maturity investment. Accordingly, designation of the derivative as a cash flow hedge is permitted.	
Paragraph 127 **Question 127- 5** **Whether a derivative can be designated as a hedged item Does IAS 39 permit designating a derivative instrument (whether a stand- alone or separately recognised embedded derivative) as a hedged item either individually or as part of a hedged group in a fair value or cash flow hedge, for instance, by designating a pay- variable, receive- fixed Forward Rate Agreement (FRA) as a cash flow hedge of a pay- fixed, receive- variable FRA?**	No. Derivative instruments are always deemed held-for-trading and measured at fair value with gains and losses reported in net profit or loss unless they are designated and effective hedging instruments (IAS 39.10). As an exception, IAS 39.124 permits the designation of a purchased option as the hedged item in a fair value hedge.	No new in-scope requirements.
Paragraph 127 **Question 127- 6**	Yes. As indicated in IAS 39. 81, a financial asset that is	Measurement of pre-payment risk. Dealt with already.

Hedge of prepayment risk of a held- to- maturity investment **Can an enterprise designate a held- to- maturity investment as a hedged item with respect to prepayment risk?**	callable by the issuer may satisfy the criteria for a held- to- maturity investment. In this case, the holder may acquire a call option to offset the changes in fair value of the embedded prepayment option.	
Paragraph 132 **Question 132- 1** **Hedge accounting: stock index** **An enterprise may acquire a portfolio of shares to replicate a stock index and a put option on the index to protect itself from fair value losses. Does IAS 39 permit designating the put on the stock index as a hedging instrument in a hedge of the portfolio of shares?**	No. If similar financial instruments are aggregated and hedged as a group, IAS 39.132 states that the change in fair value attributable to the hedged risk for each individual item in the group will be expected to be approximately proportional to the overall change in fair value attributable to the hedged risk of the group. In the scenario above, the change in the fair value attributable to the hedged risk for each individual item in the group (individual share prices) cannot be expected to be	No new in-scope requirements.

	approximately proportional to the overall change in fair value attributable to the hedged risk of the group.	
Paragraph 134 **Question 134- 1- a** **Offsetting internal derivative contracts used to manage interest rate risk** **If a central treasury function enters into internal derivative contracts with subsidiaries and various divisions within the consolidated group to manage *interest rate risk* on a centralised basis, can those contracts qualify for hedge accounting in the consolidated financial statements if, before laying off the risk, the internal contracts are first netted against each other and only the net exposure is offset in the market place with**	No. An internal contract designated at the subsidiary level or by a division as a hedge results in the recognition of changes in the fair value of the item being hedged in net profit or loss (a fair value hedge) or in the recognition of the changes in the fair value of the internal derivative in equity (a cash flow hedge). There is no basis for changing the measurement attribute of the item being hedged in a fair value hedge unless the exposure is offset with an external derivative. There also is no basis for including the gain or loss on the internal derivative in equity for one entity and recognising it in	No new in-scope requirements.

external derivative contracts?	net profit or loss by the other entity unless it is offset with an external derivative. The accounting effect of two or more internal derivatives used to manage interest rate risk at the subsidiary or division level being offset at the treasury level is that the hedged exposures at those levels are being used to offset each other in consolidation. Since IAS 39.122 does not permit designating non- derivatives as hedging instruments, except for foreign currency exposures, the results of hedge accounting from the use of internal derivatives at the subsidiary or division level that are not laid off with external parties must be reversed in consolidation. It should be noted, however, that there will be no income	

	statement impact of reversing the effect of hedge accounting in consolidation for internal derivatives that offset each other at the consolidation level if they are used in the same type of hedging relationship at the subsidiary or division level. Just as the internal derivatives offset at the treasury level, their use as fair value hedges by two separate entities or divisions within the consolidated group also will result in the offset of the fair value amounts recognised in net profit or loss and their use as cash flow hedges by two separate entities or divisions within the consolidated group also will result in the fair value amounts being offset against each other in equity. However, to the extent one of the internal	

	contracts is used as a cash flow hedge and the other is used in a fair value hedge, the impact in net profit or loss would not offset since the gain (or loss) on the internal derivative used as a fair value hedge would be reported in net profit or loss and the corresponding loss (or gain) on the internal derivative used as a cash flow hedge would be reported in equity. Question 134- 1 describes the application of IAS 39 to internal hedging transactions.	
Paragraph 134 **Question 134- 1- b** **Offsetting internal derivative contracts used to manage foreign currency risk** **If a central treasury function enters into internal derivative contracts**	Yes. As discussed in Question 134- 1- a, the accounting effect of two or more internal derivatives used to manage interest rate risk at the subsidiary or division level that are offset at the treasury level is that the hedged exposures	Where foreign currency hedging is done, internal hedges should be allowed.

with subsidiaries and various divisions within the consolidated group to manage *foreign currency risk* on a centralised basis, can those contracts qualify for hedge accounting in the consolidated financial statements if, before laying off the risk, the internal contracts are first netted against each other and only the net exposure is offset by entering into a derivative contract with an external party?	at those levels are being used to offset each other in consolidation. Since IAS 39.122 permits a non-derivative financial asset or liability to be designated as a hedging instrument for hedge accounting purposes for a hedge of a foreign currency risk, the internal derivative contracts can qualify for hedge accounting in the consolidated financial statements even if they are offset against each other.	
Paragraph 137 **Question 137- 5** **Cash flow hedges: '' all in one'' hedge** **If a derivative instrument is expected to be settled gross by delivery of the underlying asset in exchange for the payment of a fixed price, can the**	Yes. A derivative instrument that will be settled gross can be designated as the hedging instrument in a cash flow hedge of the variability of the consideration to be paid or received in the future transaction that will occur on gross settlement of the	No new in-scope requirements.

derivative instrument be designated as the hedging instrument in a cash flow hedge of that gross settlement assuming the other cash flow hedge accounting criteria are met?	derivative contract itself. This applies to all fixed-price contracts that are accounted for as derivatives under IAS 39. For instance, if an enterprise enters into a fixed- price contract to sell a commodity and that contract is accounted for as a derivative under IAS 39 because, for example, it does not meet the exception for a normal sale, the enterprise may designate the fixed- price contract as a cash flow hedge of the variability of the consideration to be received on the sale of the asset (a future transaction) even though the fixed- price contract is the contract under which the asset will be sold. Also, if a company enters into a forward contract to purchase a debt instrument that will be settled by delivery,	

	but the forward contract is a derivative because its term exceeds the regular way delivery period in the market place, the company may designate the forward as a cash flow hedge of the variability of the consideration to be paid to acquire the debt instrument (a future transaction) even though the derivative is the contract under which the debt instrument will be acquired.	
Paragraph 137 **Question 137- 6** **Hedge relationships: enterprise - wide risk** **An enterprise has a fixed rate asset and a fixed rate liability, each having the same principal amount. Under the terms of the instruments, interest payments on the asset and liability occur in the same**	Yes. IAS 39 does not require risk reduction on an enterprise- wide basis as a condition for hedge accounting. Exposure is assessed on a transaction basis and, in this instance, the asset being hedged has a fair value exposure to interest rate increases that is offset by the interest rate	No new in-scope requirements.

period and the net cash flow is always positive because the interest rate on the asset exceeds the interest rate on the liability. The enterprise enters into an interest rate swap to receive a floating interest rate and pay a fixed interest rate on a notional amount equal to the principal of the asset and designates the interest rate swap as a fair value hedge of the fixed rate asset. Does the hedging relationship qualify for hedge accounting even though the effect of the interest rate swap on an enterprise - wide basis is to create an exposure to interest rate changes that did not previously exist?	swap.	
Paragraph 137 Question 137- 7	No. IAS 39.137(b) states that a cash flow hedge is ‘‘ a hedge	No new in-scope requirements. Interpretation

Cash flow hedge: fixed interest rate cash flows **An enterprise issues a fixed rate debt security and enters into a receive-fixed, pay- variable interest rate swap to offset the exposure to interest rate risk associated with the debt security. Can the enterprise designate the swap as a cash flow hedge of the future interest cash outflows associated with the debt security?**	of the exposure to variability in cash flows''. In this case, the issued debt security does not give rise to any exposure to variability in cash flows since the interest payments are fixed. The enterprise may designate the swap as a fair value hedge of the debt security, but it cannot designate the swap as a cash flow hedge of the future cash outflows of the debt security.	only.
Paragraph 137 **Question 137- 8** **Cash flow hedge: reinvestment of fixed interest rate cash flows** **An enterprise manages interest rate risk on a net basis. On 1 January 2001, it forecasts aggregate cash inflows of 100 on fixed rate assets and**	No. The FRA does not qualify as a cash flow hedge of the cash flow relating to the fixed rate assets because they do not have a cash flow exposure. The enterprise could, however, designate the FRA as a hedge of the fair value exposure that exists before the cash flows are remitted.	No new in-scope requirements.

aggregate cash outflows of 90 on fixed rate liabilities in the first quarter of 2002. For risk management purposes it uses a receive- variable, pay- fixed Forward Rate Agreement (FRA) to hedge the forecasted net cash inflow of 10. The enterprise designates as the hedged item the first 10 of cash inflows on fixed rate assets in the first quarter of 2002. Can it designate the receive- variable, pay- fixed FRA as a cash flow hedge of the exposure to variability to cash flows in the first quarter of 2002 associated with the fixed rate assets?	In some cases, the enterprise could also hedge the interest rate exposure associated with the forecasted reinvestment of the interest and principal it receives on fixed rate assets (see Question 121- 2). However, in this example, the FRA does not qualify for cash flow hedge accounting because it increases rather than reduces the variability of interest cash flows resulting from the reinvestment of interest cash flows (for instance, if market rates increase, there will be a cash inflow on the FRA and an increase in the expected interest cash inflows resulting from the reinvestment of interest cash inflows on fixed rate assets).	
Paragraph 137 Question 137- 9	IAS 39 does not preclude either one of these two	A link must exist between the timing of when the hedged

Foreign currency hedge **Company A has a foreign currency loan payable in six months' time and** **it wishes to hedge the amount payable on settlement against foreign currency fluctuations. To that end, it takes out a forward contract to buy** **the foreign currency in six months' time. Should the hedge be treated as:** **(a) a fair value hedge of the foreign currency loan payable with** **gains and losses on revaluing the payable and the forward** **contract at the year end both recognised in the income** **statement; or** **(b) a cash flow hedge of the amount to be settled in the future with** **gains and losses on revaluing the forward**	methods. However, the income statement consequences are similar if the hedge is effective. If the hedge is treated as a fair value hedge, the gain or loss on the fair value remeasurement of the hedging instrument and the hedged item are recognised immediately in net profit or loss. If the hedge is treated as a cash flow hedge with the gain or loss on remeasuring the forward contract recognised in equity, that amount is included in net profit or loss in the same period or periods during which the hedged item (the payable) affects net profit or loss, that is, when the payable is remeasured. Therefore, if the hedge is effective, the gain or loss on the derivative is likely to be released to net profit or loss in	item has an influence on the income statement and the cash flow hedge's influence on the income statement (from equity).

contract recognised in equity?	the same periods during which the payable is remeasured.	
Paragraph 137 **Question 137- 10** **Foreign currency cash flow hedge** **An enterprise exports a product at a price denominated in a foreign currency. At the date of the sale, the enterprise obtains a receivable for** **the sale price payable in ninety days and takes out a ninety- day forward** **exchange contract in the same currency as the receivable to hedge its** **foreign currency exposure.** **Under IAS 21, the sale is recorded at the spot rate at the date of sale, and** **the receivable is restated during the ninety- day period for changes in** **exchange rates with the difference being taken to net**	Yes. If the enterprise designates the foreign exchange contract as a fair value hedge, the gain or loss from remeasuring the forward exchange contract at fair value is recognised immediately in net profit or loss and the gain or loss on remeasuring the receivable is also recognised in net profit or loss. If the enterprise designates the foreign exchange contract as a cash flow hedge of the foreign currency risk associated with the collection of the receivable, the portion of the gain or loss that is determined to be an effective hedge is recognised directly in equity, and the ineffective portion in net profit or loss	No new in-scope requirements.

profit or loss (IAS 21.11 and IAS 21.15). **If the foreign exchange contract is designated as a hedging instrument, does the enterprise have a choice whether to designate the foreign exchange contract as a fair value hedge of the foreign currency exposure of the receivable or as a cash flow hedge of the collection of the receivable?**	(IAS 39.158). The amount recognised directly in equity is transferred to net profit or loss in the same period or periods during which changes in the measurement of the receivable affects net profit or loss (IAS 39.162). For the purposes of measuring hedge effectiveness and determining the amounts that should be recognised directly in equity, the hedge documentation should specify whether the hedging relationship is designated for the spot rate only or both the interest and spot rate elements of the forward and receivable. In the latter case, the receivable is remeasured not only for changes in foreign exchange rates, but also for changes in its present value due to changes in interest rates and the passage	

	of time.	
Paragraph 137 **Question 137- 11** **Fair value hedge: variable rate debt instrument** **Does IAS 39 permit an enterprise to designate a portion of a variable rate debt instrument as a hedged item in a fair value hedge?**	Yes. A variable rate debt instrument may have an exposure to changes in its fair value due to credit risk. It may also have an exposure to changes in its fair value relating to movements in the market interest rate in the periods between which the variable interest rate on the debt instrument is reset. For instance, if the debt instrument provides for annual interest payments reset to the market rate each year, a portion of the debt instrument has an exposure to changes in fair value during the year.	No new in-scope requirements.
Paragraph 137 **Question 137- 12** **Hedge of item measured at fair value** **May an enterprise designate**	Yes, providing the exposure on the hedged item can be considered to be a fair value exposure or a cash flow exposure.	No new in-scope requirements.

an asset or liability measured at fair value with gains and losses reported in net profit or loss as a hedged item in a fair value hedge or a cash flow hedge?	For example, an equity instrument included in a trading portfolio can be considered to have a fair value exposure and a cash flow exposure. Designating an item measured at fair value as a hedged item in a fair value hedge or in a cash flow hedge does not affect the measurement and reporting of gains and losses on the hedged item and the hedging instrument (IAS 39.153). In a fair value hedge, changes in the fair value attributable to the risk being hedged and the derivative are recognised in net profit or loss. In a cash flow hedge, the gain or loss on the hedging instrument that is determined to be an effective hedge is recognised in equity (IAS 39.158). However, since the changes in the fair value of the	

	instrument being hedged are recognised in net profit or loss, the changes in the fair value of the hedging instrument also are recognised in net profit or loss in accordance with IAS 39.162.	
Paragraph 137 **Question 137- 13** **Fair value hedge : inventory** **IAS 39.137 states that a fair value hedge is "a hedge of the exposure to changes in the fair value of a recognised asset or liability ... that is attributable to a particular risk and that will affect reported net income". Can an enterprise designate inventories, such as copper inventory, as the hedged item in a fair value hedge of the exposure to changes in the price of the**	Yes. The inventories may be hedged for changes in fair value due to changes in the copper price because the change in fair value of inventories will affect net profit or loss when the inventories are sold or their carrying amount is written down. The adjusted carrying amount becomes the cost basis for the purpose of applying the lower of cost and net realisable value test under IAS 2. The hedging instrument used in a fair value hedge of inventories may alternatively qualify as a cash	Where inventory is hedged: - A link must between the fair value changes in price and the changes in value of the hedging instrument. - The write-up or write-down will effect the inventory cost basis for IAS 2 requirements.

inventories, such as the copper price, although inventories are measured at the lower of cost or net realisable value under IAS 2?	flow hedge of the future sale of the inventory.	
Paragraph 137 **Question 137- 14** **Intra- group monetary item that will affect consolidated net income** **Can an intra- group monetary item be designated at the group level as the hedged item in a foreign currency fair value hedge or cash flow hedge even though the intra- group monetary item is eliminated on consolidation?**	Yes, provided the intra- group monetary item results in an exposure to exchange differences that cannot be eliminated on consolidation. As indicated in IAS 21.34, intra- group monetary items may give rise to exchange differences that cannot be eliminated in consolidated net profit or loss. Under IAS 21, exchange differences on intra- group monetary items affect consolidated net profit or loss when (1) the intra- group monetary item is transacted between two group companies that have different measurement	No new in-scope requirements.

	currencies, and (2) the intra-group monetary item is denominated in one of those two measurement currencies. Such exchange differences may arise if at least one of the two counterparties to the internal transaction is classified as a foreign entity under IAS 21, since a foreign operation that is integral to the operations of the reporting enterprise has the same measurement currency as the reporting enterprise. To illustrate: Group A consists of Parent Company A and Subsidiary Company B and Subsidiary Company C. Group A and Parent Company A have the euro as their measurement currency. Parent Company A has two subsidiaries: Manufacturing Company B, which has the euro as its	

	measurement currency, and Company C, which is classified as a foreign entity under IAS 21 and has the US dollar as its measurement currency. On 31 March, Company C purchases goods from Company B for 110 US dollars, payable on 30 June. In this case, Company B and Group A may designate the intra- group monetary item of 110 US dollars as a hedged item in a foreign currency fair value hedge or cash flow hedge. While Company B's foreign currency receivable is eliminated against Company C's foreign currency payable on consolidation, the exchange differences that arise for Company B cannot be eliminated since Company C has no corresponding exchange differences. Thus, the intra-	

	group monetary item results in an exposure to variability in the foreign currency amount of the intra-group monetary item that will affect reported net income in the consolidated financial statements. Therefore, the intra- group monetary item may be designated as a hedged item in a foreign currency fair value or cash flow hedge.	
Paragraph 137 **Question 137- 15** **Forecasted intra- group foreign currency transactions that will affect consolidated net income** **In Question 137- 14, it was indicated that an intra-group monetary item may be designated at the group level as the hedged item in a foreign currency fair value hedge or cash flow hedge if it**	Yes, a forecasted intra- group transaction may be designated as the hedged item in a foreign currency cash flow hedge provided the transaction is highly probable, meets all other hedge accounting criteria, and will result in the recognition of an intra- group monetary item for which exchange differences cannot be eliminated in consolidated net profit or loss.	No new in-scope requirements.

exposes the group to exchange differences that cannot be eliminated in consolidated net profit or loss. Can a forecasted intra- group transaction be designated as a hedged item in a foreign currency cash flow hedge if it relates to an intra-group monetary item that would qualify as a hedged item?	Continuing the example in Question 137- 14, if Company B on 1 January agrees to sell goods to Company C for delivery on 31 March at a price of 110 US dollars, payable on 30 June, Company B and Group A may designate that committed transaction as a hedged item in a foreign currency cash flow hedge.	
Paragraph 137 **Question 137- 16** **Concurrent offsetting swaps and use of one as hedging instrument** **Company A enters into an interest rate swap and designates it as a hedge of the fair value exposure associated with fixed rate debt. The fair value hedge meets the hedge accounting criteria of IAS 39. Company A**	Generally no. IAS 39 is transaction- based. If the second swap was not entered into in contemplation of the first swap or there is a substantive business purpose for structuring the transactions separately, then the swaps are not viewed as one unit. For example, some enterprises have a policy that requires a centralised dealer or treasury subsidiary to enter	A measurement for the existence of substantive business purpose may be necessary in order for a hedging instrument to be allowed under hedge accounting rules.

simultaneously enters into a second interest rate swap with the same swap counterparty that has the exact mirror terms of the first interest rate swap. Is Company A required to view the two swaps as one unit and therefore precluded from applying fair value hedge accounting to the first swap?	into third- party derivative contracts on behalf of other subsidiaries within the organisation to hedge the subsidiaries' interest rate risk exposures. The dealer or treasury subsidiary also enters into internal derivative transactions with those subsidiaries in order to operationally track those hedges within the organisation. Because the dealer or treasury subsidiary also enters into derivative contracts as part of its trading operations, or because it may wish to rebalance the risk of its overall portfolio, it may enter into a derivative contract with the same third party during the same business day that has substantially the same terms as a contract entered into as a hedging instrument on behalf of another subsidiary. In	

	this case, there is a valid business purpose for entering into each contract. Judgement is applied to determine whether there is a substantive business purpose for structuring the transactions separately. For example, if the sole purpose is to obtain fair value accounting treatment for the debt, there is no substantive business purpose.	
Paragraph 142 **Question 142- 4** **Retroactive designation of hedges** **Does IAS 39 permit an enterprise to retroactively designate hedge relationships?**	No. Designation of hedge relationships takes effect prospectively from the date all hedge accounting criteria in IAS 39.142 are met. In particular, hedge accounting can only be applied from the date the enterprise has completed the necessary documentation of the hedge relationship, including identification of the hedging instrument, the related hedged item or	No new in-scope requirements.

	transaction, the nature of the risk being hedged, and how the enterprise will assess hedge effectiveness.	
Paragraph 142 **Question 142- 5** **Hedge accounting: identification of hedged forecasted transaction** **Can a forecasted transaction be identified as the purchase or sale of the last 15,000 units of a product in a specified period or as a percentage of purchases or sales during a specified period?**	No, the hedged forecasted transaction must be identified and documented with sufficient specificity so that when the transaction occurs, it is clear whether the transaction is or is not the hedged transaction. Therefore, a forecasted transaction may be identified as the sale of the first 15,000 units of a specific product during a specified three- month period, but it could not be identified as the last 15,000 units of that product sold during a three-month period because the last 15,000 units cannot be identified when they occur. For the same reason, a forecasted transaction cannot be	No new in-scope requirements.

	specified solely as a percentage of sales or purchases during a period.	
Paragraph 142 **Question 142- 6** **Hedge effectiveness: counterparty credit risk** **Must an enterprise consider the likelihood of default by the counterparty to the hedging instrument in assessing hedge effectiveness?**	Yes. An enterprise cannot ignore whether it will be able to collect all amounts due under the contractual provisions of the hedging instrument. When assessing hedge effectiveness, both at the inception of the hedge and on an ongoing basis, the enterprise considers the risk that the counterparty to the hedging instrument will default by failing to make any contractual payments to the enterprise. For a cash flow hedge, if it becomes probable that a counterparty will default, an enterprise would be unable to conclude that the hedging relationship is expected to be highly effective	Counterparty risk has to be measured in assessing hedge effectiveness.

	in achieving offsetting cash flows. As a result, hedge accounting would be discontinued. For a fair value hedge, if there is a change in the counterparty's creditworthiness, the fair value of the hedging instrument will change which affects the assessment of whether the hedge relationship is effective and whether it qualifies for continued hedge accounting.	
Paragraph 144 **Question 144- 1** **Combination of written and purchased options** **In most cases, IAS 39.124 prohibits the use of written options as hedging instruments. If a combination of a written option and purchased option (such as an interest rate collar) is transacted as a**	No. IAS 39.144 specifies that a hedging relationship is designated by an enterprise for a hedging instrument in its entirety. The only exceptions permitted are splitting the time value and intrinsic value of an option and splitting the interest element and spot price on a forward. Question 124- 1 addresses the issue of	No new in-scope requirements.

single instrument with one counterparty, can an enterprise split the derivative instrument into its written option component and purchased option component and designate the purchased option component as a hedging instrument?	whether and when a combination of options is considered as a written option.	
Paragraph 144 **Question 144- 2** **Delta- hedging** **Does IAS 39 permit an enterprise to apply hedge accounting for a ‘‘ del t a- neutral’’ hedging strategy and other dynamic hedging strategies under which the quantity of the hedging instrument is constantly adjusted in order to maintain a desired hedge ratio, for instance, to achieve a delta- neutral position insensitive to changes in the fair value**	Yes. IAS 39.144 states that ‘‘ a dynamic hedging strategy that assesses both the intrinsic and the time value of an option can qualify for hedge accounting’’. For instance, a portfolio insurance strategy that seeks to ensure that the fair value of the hedged item does not drop below a certain level, while allowing the fair value to increase, may qualify for hedge accounting. To qualify for hedge accounting, the enterprise	No new in-scope requirements.

of the hedged item?	must document how it will monitor and update the hedge and measure hedge effectiveness, be able to properly track all terminations and redesignations of the hedging instrument, and demonstrate that all other criteria for hedge accounting in IAS 39.142 are met.	
Paragraph 149 **Question 149- 1** **Hedge accounting: risk of a transaction not occurring** **Does IAS 39 permit an enterprise to apply hedge accounting to a hedge of the risk that a transaction will not occur, for instance, if that would result in less revenue to the enterprise than expected?**	No. The risk that a transaction will not occur is an overall business risk that is not eligible as a hedged item. Hedge accounting is only permitted for risks associated with recognised assets and liabilities, and highly probable forecasted transactions (IAS 39.137).	No new in-scope requirements.
Paragraph 157 **Question 157- 1** **Fair value hedge:**	Yes. IAS 39.157 requires amortisation to begin no later than when the	No new in-scope requirements.

amortisation of the adjustment to the carrying amount of a hedged interest bearing financial instrument Can an enterprise start amortising the fair value adjustment to the carrying amount of a hedged interest bearing financial instrument before the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged?	hedged item ceases to be adjusted. Theoretically, amortisation could start as soon as a fair value adjustment exists. Nevertheless, an enterprise may defer amortising the adjustment until the hedged item ceases to be adjusted because it may be administratively burdensome to amortise the adjustment at the same time as the carrying amount is being adjusted for changes in its fair value that are attributable to interest rate risk (the risk being hedged). The enterprise applies the same amortisation policy for all debt instruments, that is, an enterprise cannot defer amortising fair value adjustments on a selective basis. The amortisation is based on a recalculated effective interest	

	at the date amortisation commences (IAS 39.10).	
Paragraph 163 **Question 163- 1** **Cash flow hedges: forecasted transaction that is not highly probable, but is expected to occur** **If a forecasted transaction is no longer highly probable, would it automatically be considered ‘‘ no longer expected to occur’’ with recognition in net profit or loss for the period of any net cumulative gain or loss that had been reported directly in equity under IAS 39.163(c)?**	No. The term ‘‘ highly probable’’ represents a higher degree of probability than ‘‘ expected to occur’’. Therefore, even though a forecasted transaction is no longer highly probable, it may still be expected to occur. If it is expected to occur, IAS 39.163(b) applies and the net cumulative gain or loss that had been reported directly in equity remains in equity.	A split should be made for future cash flows between: - Highly probable - Not highly probable, but still expected to occur and; - Not expected to occur.
Paragraph 172 **Question 172- 7** **Transition rules: held- to- maturity financial assets** **If an enterprise has sold or**	No. IAS 39 is applied prospectively. For financial years prior to the initial application of IAS 39, IAS 25 is applied to the accounting for	Transitional rules are deemed out-of-scope.

transferred ‘‘ held- to- maturity“ financial assets in the two financial years before IAS 39 is first applied, does the reference in IAS 39.172(d) to IAS 39.66- 102, including IAS 39.83, prevent any financial assets being classified as held to maturity on transition?	debt investments. Since IAS 25 does not contain any classification category for held- to- maturity investments, an enterprise would not have classified any investments as held to maturity for the purposes of preparing financial statements in accordance with International Accounting Standards. Therefore, IAS 39.83 is not applied on transition.	
Paragraph 172 Question 172- 8 Transition rules: hedge documentation on first day of initial application During the financial year that IAS 39 is first applied, may an enterprise retroactively designate and document hedges ‘‘ as of’’ the beginning of that financial year?	No. The designation and documentation of a hedge relationship must be completed on the first day of the financial year that IAS 39 is first applied if the hedge relationship is to qualify for hedge accounting from that date. Hedge accounting can only be applied prospectively from the date that the	Transitional rules are deemed out-of-scope.

	hedge relationship is fully designated and documented.	
Question 118- 1 **Impairment: debt instrument remeasured to fair value** **IAS 39.118 states that the recoverable amount of a debt instrument remeasured to fair value is the present value of expected future cash flows discounted at the current market rate for a similar financial asset.** **What is the current market rate of interest for a similar financial asset?**	IAS 39 does not define the current market rate of interest for a similar financial asset. However, care must be taken not to include expected defaults both in the discount rate and expected future cash flows, that is, the discount rate must be consistent with the assumptions made about expected defaults in the expected future cash flows. The current market rate of interest for an otherwise comparable financial asset is its effective yield. That yield is adjusted by the market place for the impairment loss it expects.	Previously addressed.
Paragraph 122 **Question 122- 2** **Hedging the fair value**	No. IAS 39.122 permits a non-derivative to be used as a hedging instrument	No new in-scope requirements.

exposure of a bond in a foreign currency Company J, whose measurement currency is the Japanese yen, has issued 5 million 5- year US dollar fixed rate debt. Also, it owns a 5 million 5- year fixed rate US dollar bond which it has classified as available for sale. Company J has a policy of reporting gains and losses on available- for- sale financial assets directly in equity. Can Company J designate its US dollar liability as a hedging instrument in a fair value hedge of the entire fair value exposure of its US dollar bond?	only for a hedge of a foreign currency risk. Company J's bond has a fair value exposure to both foreign currency and to interest rate changes.	
Alternatively, can the US dollar liability be designated as a fair value hedge or cash flow hedge of	Yes. In this case, the amortised cost of the hedging instrument and the hedged item are both remeasured	No new in-scope requirements.

the spot rate component of the bond?	using closing rates (see Question 153- 1). Regardless of whether Company J designates the relationship as a cash flow hedge or a fair value hedge, the effect on net profit or loss is the same. Any gain or loss on the non-derivative hedging instrument designated as a cash flow hedge that is recorded in equity is immediately recognised in net profit or loss to correspond with the recognition of the change in spot rate on the hedged item in net profit or loss as required by IAS 21.	
Paragraph 122 **Question 122- 3** **Hedging with a non-derivative financial asset or liability** **Company J's measurement currency is the Japanese yen. It has issued a**	No. IAS 39.122 permits a non-derivative asset or liability to be used as a hedging instrument only for a hedge of a foreign currency risk. Also, IAS 39.137 does not permit a hedge of an unrecognised	Previously addressed.

fixed rate debt instrument with semi- annual interest payments that matures in two years with principal due at maturity of US dollar 5 million. It has also entered into a 5 million US dollar fixed price sales commitment that matures in two years and that is not accounted for as a derivative because it meets the exemption for normal sales in IAS 39. 14. Can Company J designate its US dollar liability as a fair value hedge of the entire fair value exposure of its fixed price sales commitment and qualify for hedge accounting.	forward contract to be designated as a fair value hedge.	
Alternatively, can Company J designate its US dollar liability as a cash flow hedge of the foreign currency exposure	Yes. IAS 39 permits the designation of a non-derivative asset or liability as a hedging instrument in a cash flow hedge of the exposure to	Previously addressed.

associated with the future receipt of US dollars on the fixed price sales commitment?	changes in foreign exchange rates of a firm commitment (IAS 39.122 and IAS 39.137). Any gain or loss on the non-derivative hedging instrument that is recorded in equity during the period preceding the occurrence of the future sale is recognised in net profit or loss when the sale occurs (IAS 39.162).	
Alternatively, can Company J designate the sales commitment as the hedging instrument instead of the hedged item?	No, in addition to derivative instruments, only a non-derivative asset or liability can be designated as a hedging instrument for a hedge of a foreign currency risk. However, if the foreign currency component of the sales commitment is required to be separated as an embedded derivative under IAS 39.23 and IAS 39.25(d), it could be designated as a	No new in-scope requirements.

	hedging instrument in a hedge of the exposure to changes in the fair value of the maturity amount of the debt attributable to foreign currency risk. The foreign currency component would be separated if (a) the US dollar is not the currency of the primary economic environment of the counterparty to the sales commitment, and (b) the good or service that is delivered is not routinely denominated in US dollars in international commerce.	
Paragraph 127 **Question 127- 6** **Hedge of prepayment risk of a held- to- maturity investment** **Can an enterprise designate a held- to- maturity investment as a hedged item with respect to**	No. IAS 39.127 only permits the designation of a held- to- maturity investment as a hedged item in a hedge of exposures to changes in foreign currency exchange rates or credit risk. It does not allow the designation of a held- to-	Previously addressed.

prepayment risk, for instance, a mortgage-backed pass- through security whose payments are based on a portion of an underlying pool of loans that are subject to prepayment risk?	maturity investment as a hedged item in a hedge of interest rate risk. Because prepayment risk is a function of interest rates, that risk is more akin to interest rate risk than foreign currency risk or credit risk.	
Paragraph 128 **Question 128- 4** **Hedged items: hedge of a portion of fair value or cash flows** **Enterprise A acquires shares in Company B on a foreign stock exchange for their fair value of 1,000 in foreign currency (FC). It classifies the shares as available-for-sale. Enterprise A has a policy of reporting gains and losses on available- for-sale financial assets in equity. To protect itself from the exposure to**	Yes, but only if there is a clear and identifiable exposure to changes in foreign exchange rates. Therefore, hedge accounting is permitted if (a) the equity instrument is not traded on an exchange (or other established market place) on which trades are denominated in the same currency as the measurement currency of Enterprise A and (b) dividends to Enterprise A are not denominated in that currency. Thus, if a share is traded in multiple currencies	Forward cover roll-overs will have to be linked.

changes in the foreign exchange rate associated with the shares, it enters into a forward contract to sell FC 750. Enterprise A intends to roll over the forward exchange contract for as long as it retains the shares. Assuming that the other hedge accounting criteria are met, would the forward exchange contract qualify as a hedge of the foreign exchange risk associated with the portion of the fair value of the shares up to 750 in foreign currency?	and one of those currencies is the measurement currency of the reporting enterprise, hedge accounting for the foreign currency component of the share price is not possible. IAS 39 permits designating a portion of the cash flow or fair value of a financial asset as the hedged item if effectiveness can be measured (IAS 39.128). Therefore, Enterprise A may designate the forward exchange contract as a hedge of the foreign exchange risk associated with only a portion of the fair value of the shares in foreign currency. It could either be designated as a fair value hedge of the foreign exchange exposure of FC 750 associated with the shares or as a cash flow hedge of a forecasted sale of the	

	shares provided the timing of the sale is identified. Any variability in the fair value of the shares in foreign currency would not affect the assessment of hedge effectiveness unless the fair value of the shares in foreign currency was to fall below 750.	
Paragraph 131 **Question 131- 2** **Hedging instrument: cross-currency interest rate swap** **Company A's measurement currency is the Japanese yen. Company A has a five- year floating rate US dollar liability and a 10 year fixed rate pound sterling-denominated note receivable. Company A wishes to hedge the foreign currency exposure on its asset and liability and the fair value interest rate exposure**	Yes. IAS 39.128 permits hedge accounting for components of risk, if effectiveness can be measured (see Question 128-3). Also, IAS 39.131 permits designating a single hedging instrument as a hedge of more than one type of risk if the risks can be clearly identified, effectiveness can be demonstrated, and specific designation of the hedging instrument and the risk positions can be ensured. Therefore, the swap may be designated as a hedging	No new in-scope requirements.

on the receivable and enters into a matching cross- currency interest rate swap to receive floating rate (LIBOR) US dollars and pay fixed rate pounds sterling and to exchange the dollars for the pounds at the end of five years. Can Company A designate the swap as a hedging instrument in a fair value hedge against both foreign currency risk and interest rate risk, although both the pound sterling and US dollar are foreign currencies to Company A?	instrument in a fair value hedge of the pound sterling receivable against exposure to changes in its fair value associated with changes in UK interest rates for the initial partial term of five years and the exchange rate between pounds and dollars. The swap is measured at fair value with changes in fair value reported in net profit or loss. The carrying amount of the receivable is adjusted for changes in its fair value caused by changes in UK interest rates for the first five year portion of the yield curve. The receivable and payable are remeasured using spot exchange rates under IAS 21 and the changes to their carrying amount included in net profit or loss.	
Paragraph 131	Yes. However, since both the	No new in-scope

Question 131- 3 **Hedging instrument: forward exchange contract** **Company A's measurement currency is the Japanese yen. Company A has a five- year floating rate US dollar liability and a ten-year fixed rate pound sterling-denominated note receivable. The principal amounts of the asset and liability when converted into the Japanese yen are the same.** **Company A enters into a single foreign currency forward contract to hedge its foreign currency exposure on both instruments under which it receives US dollars and pays pounds sterling at the end of five years. If Company A designates the forward exchange contract as a hedging**	receivable and the liability are measured using spot rates under IAS 21, hedge accounting is not necessary. IAS 39.131 permits designating a single hedging instrument as a hedge of more than one type of risk if three conditions are met. In this example, the derivative hedging instrument satisfies all of these conditions: (a) The risks hedged can be clearly identified. The risks are the exposures to changes in the exchange rate between dollars and pounds on the principal amounts of the liability and the note receivable. (b) The effectiveness of the hedge can be demonstrated. For the pound sterling loan, the effectiveness is measured as the degree of	requirements.

instrument in a cash flow hedge against the foreign currency exposure on the principal repayments of both instruments, can it qualify for hedge accounting?	offset between the fair value of the principal repayment in pounds sterling and the fair value of the pounds sterling payment on the forward exchange contract. For the US dollar liability, the effectiveness is measured as the degree of offset between the fair value of the principal repayment in US dollars and the US dollar payment on the forward exchange contract. Even though the receivable has a ten- year life and the forward only protects it for the first five years, hedge accounting is permitted for only a portion of the exposure as described in Question 128- 2. (c) It is possible to ensure that there is a specific designation of the hedging instrument and the different risk positions. The	

	hedged exposures are identified as the principal amounts of the liability and the note receivable in their respective currency of denomination.	
Paragraph 134 **Question 134- 3** **Internal contracts: single offsetting external derivative** **An enterprise uses what it describes as internal derivative contracts to document the transfer of responsibility for interest rate risk or foreign exchange rate risk exposures from individual divisions to a central treasury function. The central treasury function aggregates the internal derivative contracts and enters into a single external derivative contract that offsets the internal derivative contracts on a net**	Yes, but only to the extent the external derivative is designated as an offset of cash inflows or cash outflows on a gross basis. IAS 39.133 indicates that a hedge of an overall net position does not qualify for hedge accounting. However, it does permit designating a part of the underlying items as the hedged position on a gross basis. Therefore, even though the purpose of entering into the external derivative was to offset internal derivative contracts on a net basis, hedge accounting is permitted if the hedging relationship is	Previously addressed.

basis, for example, if the central treasury function has entered into three internal receive- fixed, pay- variable interest rate swaps that lay off the exposure to variable interest cash flows on variable rate liabilities in other divisions and one internal receive- variable, pay- fixed interest rate swap that lays off the exposure to variable interest cash flows on variable rate assets in another division, it would enter into an interest rate swap with an external counterparty that exactly offsets the four internal swaps. Assuming that the hedge accounting criteria are met, in the enterprise's financial statements would the single offsetting external derivative qualify as a	defined and documented as a hedge of a part of the underlying cash inflows or cash outflows on a gross basis. An enterprise follows the approach outlined in IAS 39.133 to designate part of the underlying cash flows as the hedged position.	

hedging instrument in a hedge of a part of the underlying items on a gross basis?		
Paragraph 134 **Question 134- 4** **Internal contracts: external derivative contracts that are settled net** **An enterprise uses internal derivative contracts to transfer interest rate risk or foreign exchange rate risk exposures from individual divisions to a central treasury function. For each internal derivative contract, the central treasury function enters into a derivative contract with a single external counterparty that offsets the internal derivative contract, for instance, if the central treasury function has entered into a receive- 5% -**	Generally yes. External derivative contracts that are legally separate contracts and serve a valid business purpose, such as laying off risk exposures on a gross basis, qualify as hedging instruments even if those external contracts are settled on a net basis with the same external counterparty provided the hedge accounting criteria in IAS 39 are met. See also Question 137- 15.	No new in-scope requirements.

fixed, pay- LIBOR interest rate swap with another division, it would enter into a pay- 5%- fixed, receive- LIBOR interest rate swap on the same principal terms with the external counterparty. Although each of the external derivative contracts is formally documented as a separate contract, only the net of the payments on all of the external derivative contracts is settled since there is a netting agreement with the external counterparty. Assuming that the other hedge accounting criteria are met, can the individual external derivative contracts be designated as hedging instruments of underlying gross exposures even though the external derivatives are		

settled on a net basis?		
Treasury observes that by entering into the external offsetting contracts and including them in the centralised portfolio, it is no longer able to evaluate the exposures on a net basis. Treasury wishes to manage the portfolio of offsetting external derivatives separately from other exposures of the enterprise. Therefore, it enters into an additional, single derivative to offset the risk of the portfolio. Can the individual external derivative contracts in the portfolio still be designated as hedging instruments of underlying gross exposures even though a single external derivative is used to offset fully the market exposure	Generally yes. As indicated above, external derivative contracts that are legally separate contracts and serve a valid business purpose qualify as hedging instruments. Moreover, the answer to Question 137- 15, specifies that hedge accounting is not precluded simply because the enterprise has entered into a swap that has the exact mirror terms of another swap with the same counterparty if there is a substantive business purpose for structuring the transactions separately.	Previously addressed.

created by entering into the external contracts?		
Paragraph 137 **Question 137- 16** **Cash flow hedge: forecasted transaction related to an enterprise's equity** **Can a forecasted transaction in the enterprise's own equity securities or forecasted dividend payments to shareholders be designated as a hedged item in a cash flow hedge?**	No. To qualify as a hedged item, the forecasted transaction must expose the enterprise to a particular risk that can affect net profit or loss (IAS 39.137). The classification of financial instruments as liabilities or equity generally provides the basis for determining whether transactions or other payments relating to such instruments are reported in net profit or loss. For instance, distributions to holders of a financial instrument classified as an equity instrument are debited by the issuer directly to equity (IAS 32.30). Therefore, such distributions cannot be designated as a hedged item.	No new in-scope requirements.
Paragraph 142	Yes. For hedge accounting	No new in-scope

Question 142- 7 **Hedge accounting: designation at the inception of the hedge** **Does IAS 39 permit an enterprise to designate and formally document a derivative contract as a hedging instrument subsequent to entering into the derivative contract?**	purposes, IAS 39 requires that a hedging instrument be designated and formally documented as such from the inception of the hedge relationship (IAS 39.142), that is, a hedge relationship cannot be designated retrospectively. Also, it precludes designating a hedging relationship for only a portion of the time period in which the hedging instrument will remain outstanding (IAS 39.145). However, it does not require that the hedging instrument be acquired at the inception of the hedge relationship.	requirements.
Paragraph 142 **Question 142- 8** **Cash flow hedge: documentation of timing of forecasted transaction** **For a hedge of a forecasted**	Yes. To qualify for hedge accounting, the hedge must relate to a specific identified and designated risk (IAS 39.149) and it must be possible to measure	For a hedge of a forecasted transaction, the documentation of the hedge relationship that is established at inception of the hedge should identify the date on or time period in which

transaction, should the documentation of the hedge relationship that is established at inception of the hedge identify the date on or time period in which the forecasted transaction is expected to occur?	its effectiveness reliably (IAS 39.142). Also, the hedged forecasted transaction must be highly probable (IAS 39.142). To meet these criteria, an enterprise is not required to predict and document the exact date a forecasted transaction is expected to occur. However, it is required to identify and document the time period in which the forecasted transaction is expected to occur, for instance, within a range of three months from a most probable date, as a basis for assessing hedge effectiveness. If a forecasted transaction is no longer expected to occur within the initially forecasted period, the hedge relationship may still qualify for continued hedge accounting provided the hedged transaction is	the forecasted transaction is expected to occur.

	expected to occur within a relatively short time frame from the originally specified period, such as two months. If the forecasted transaction is no longer expected to occur within the initially forecasted period or a within a relatively short period thereafter, hedge accounting is discontinued in accordance with IAS 39.163.	
Paragraph 153 **Question 153- 1** **Fair value hedge: measurement of a non-derivative hedging instrument** **IAS 39.153 specifies that in a fair value hedge the gain or loss from remeasuring the hedging instrument at fair value should be recognised in net profit or loss. If a non-derivative instrument**	No. A non- derivative financial instrument may only be designated as a hedge of an exposure to foreign currency risk (IAS 39.122). Such an instrument would be remeasured for changes in its fair value attributable to changes in spot foreign exchange rates under IAS 21, but not for other changes in its fair value that do not affect its amortised cost.	Where a non-derivative instrument (carried at amortised cost) is applied as a hedging instrument in order to hedge a foreign exchange rate risk, changes in the fair value of the instrument due to changes in foreign exchange rates should be split from other changes in its fair value that does not affect its amortised cost.

classified as a held- to-maturity asset, originated loan, or non- trading liability is designated as a hedging instrument, would it also be remeasured at fair value?		
Paragraph 158 **Question 158- 1** **Cash flow hedges: ‘‘ overperformance’’ of hedging instrument** **Enterprise A has a floating rate liability of 1,000 with five years remaining to maturity. It enters into a five- year pay-fixed, receive- floating interest rate swap in the same currency and with the same principal terms as the liability to hedge the exposure to variable payments on the floating rate liability attributable to interest rate risk.**	Yes. In this case, the cumulative change in fair value of the floating rate leg of the swap exceeds the change in fair value of the expected variable rate payments on the liability with an amount of 10. Therefore, the cumulative gain or loss on the derivative hedging instrument necessary to offset the cumulative change in expected future cash flows on the hedged item from the inception of the hedge exceeds the fair value of the cumulative change in expected future cash flows on the hedged item from the	No new in-scope requirements.

At inception, the fair value of the swap is zero. Subsequently, market interest rates decrease so that there is an increase of 50 in the present value of the future fixed rate cash outflows on the swap and the notional principal amount discounted using market interest rates. Also, the credit risk of the swap counterparty deteriorates so that there is a decrease of 10 in the present value of the future floating rate cash inflows on the swap and the notional principal amount discounted using current market interest rates. Accordingly, the fair value of the swap is 40. There is no change in the fair value of the liability attributable to interest rate risk. Assuming that Enterprise A	inception of the hedge. The difference of 10 is reported immediately in net profit or loss (IAS 39.158(b)). Because Enterprise A determines that the hedge relationship is still highly effective, it debits the effective portion of the change in fair value of the swap, that is, the increase of 50 in the present value of the fixed leg of the swap, to equity and credits the ineffective portion of the change in fair value of the swap, that is, the decrease of 10 in the present value of the floating rate leg, to net profit or loss. If Enterprise A concludes that the hedge is no longer highly effective, it discontinues hedge accounting prospectively as from the date the hedge ceased to be highly effective in accordance with	

determines that the hedge is still highly effective and assesses hedge effectiveness by comparing changes in variable cash flows, is there ineffectiveness that should be reported in net profit or loss?	IAS 39.163.	
Paragraph 158 **Question 158- 2** **Cash flow hedges: ‘‘ underperformance’’ of hedging instrument** **On 30 September 2001, Enterprise A hedges the anticipated sale of 24 tonnes of pulp on 1 March 2002 by entering into a short forward contract on 24 tonnes of pulp. The contract requires net settlement in cash determined as the difference between the future spot price of pulp on a specified commodity exchange and 1,000.**	No. In a cash flow hedge, ineffectiveness is not recognised in the financial statements when the change in the value of the hedged item exceeds the change in value of the hedging instrument. In this case, the cumulative change in the fair value of the forward contract is 80, while the present value of the cumulative change in expected future cash flows on the hedged item is 100. Since the present value of the cumulative change in expected future cash flows on the hedged item from	Accounting treatment will differ where, for a cash flow hedge, the change in the hedged item’s fair value is greater than the change in the hedging items fair value, compared to the scenario where it is the other way around.

Enterprise A expects to sell the pulp in a different, local market. Enterprise A determines that the forward contract is an effective hedge of the anticipated sale and that the other conditions for hedge accounting are met. It assesses hedge effectiveness by comparing the entire change in the fair value of the forward contract with the change in present value of the expected cash inflows. On 31 December, the spot price of pulp has increased both in the local market and on the exchange. The increase in the local market exceeds the increase on the exchange. As a result, the present value of the expected cash inflow from the sale on the local market is 1,100. The	the inception of the hedge exceeds the cumulative change in fair value of the hedging instrument (in absolute amounts) , no portion of the gain or loss on the hedging instrument is recognised in net profit or loss (IAS 39.158(b)). Because Enterprise A determines that the hedge relationship is still highly effective, it debits the entire change in fair value of the forward contract (80) to equity. If Enterprise A concludes that the hedge is no longer highly effective, it discontinues hedge accounting prospectively as from the date the hedge ceased to be highly effective in accordance with IAS 39.163.	

fair value of Enterprise A's forward contract is a negative 80. Assuming that Enterprise A determines that the hedge is still highly effective, is there ineffectiveness that should be reported in net profit or loss?		
Paragraph 160 **Question 160- 1** **Cash flow hedge: forecasted issuance of debt in foreign currency** **Company A has the euro as its measurement currency. On 1 November 2001, it expects to borrow 1,000 US dollars on 1 April 2002. To offset the exposure to changes in foreign exchange rates, it takes out a forward exchange contract to buy 1,100 euros and sell 1,000 US dollars on 1 April 2002. The relationship meets**	Yes. IAS 39.160 states that " if the hedged … forecasted transaction results in the recognition of … a liability, then at the time the … liability is recognised the associated gains or losses that were recognised directly in equity … should be removed from equity and enter into the initial measurement of the acquisition cost or other carrying amount of the … liability. " The effective interest on the US dollar borrowing reflects the adjustment to its	No new in-scope requirements.

the criteria for hedge accounting. **Company A designates the forward exchange contract as a cash flow** **hedge of the forecasted borrowing. On 1 April 2002, Company A** **borrows 1,000 US dollars and settles the forward exchange contract.** **Since the dollar has depreciated, the forward exchange contract has a** **cumulative gain of 60 euros (or 50 dollars) that has been reported in** **equity. Is the initial carrying amount of the US dollar borrowing** **adjusted for the cumulative gain on the forward exchange contract?**	initial carrying amount. It is expressed as an interest rate in the currency of the denomination of the borrowing. Accordingly, for the purpose of applying the effective interest method the adjustment is treated as an adjustment expressed in US dollars rather than in euros.	
Paragraph 164 **Question 164- 1** **Hedge accounting: premium or discount on forward**	No. The premium or discount on a forward exchange contract may not be amortised to net profit or loss	No new in-scope requirements.

exchange contract **A forward exchange contract is designated as a hedging instrument, for instance, in a hedge of a net investment in a foreign entity. Is it permitted to amortise the discount or premium on the forward exchange contract to net profit or loss over the term of the contract?**	under IAS 39. Derivatives are always measured at fair value in the balance sheet. The gain or loss resulting from a change in the fair value of the forward exchange contract is always reported in net profit or loss unless the forward exchange contract is designated and effective as a hedging instrument in a cash flow hedge or in a hedge of a net investment in a foreign entity in which case the effective portion of the gain or loss is included in equity. In that case, the amounts included in equity are released to net profit or loss when the hedged future cash flows occur or on the disposal of the net investment, as appropriate.	
Paragraph 172 **Question 172- 10**	No. SIC- 8 requires comparative information to be	Transitional rules are deemed out of scope.

Transition rules: retrospective application by first- time adopters **If an enterprise applies International Accounting Standards in full for the first time in a period subsequent to the effective date of IAS 39, for example, in 2003, should comparative information presented for 2001 and 2002 be restated to comply with IAS 39?**	prepared and presented in accordance with International Accounting Standards effective for the period of first- time application except when individual Standards or Interpretations require or permit a different transitional treatment or the amount of the adjustment relating to prior periods cannot be reasonably determined. IAS 39.171- 172 specify that retrospective application of IAS 39 is not permitted. This requirement applies both to enterprises that currently apply International Accounting Standards and to first- time adopters in periods subsequent to the effective date of IAS 39.	

Annexure 3A[1]

The matching table

Summary of requirements from IAS 39 as dealt with in chapter 3	Change factor	Specific problem defined (sub dividing the identified change factors)
There must be a measurement or indication of the purpose at acquisition of an asset.	1.Internal systems integration 2. Real-time decision making	1. Inadequate “other“ parameters. 2. Less management involvement
The instrument type has to be identified (especially derivative vs. non-derivative).	Internal systems integration	Inadequate accounting parameters.
Instruments must be assigned to portfolios based on their type classification.	1. Standardisation 2. Internal systems integration	1. Specialised requirements not catered for. 2. Inadequate accounting parameters.

The pattern of profit taking for asset classes (than held-for-trading) should be tracked as reclassification could be necessary.	Not applicable	Not applicable
The substance of equity (in legal form) instruments should be considered for allocation either as equity or debt following the substance over form principle of IAS 32.	1. Standardisation 2. Internal systems integration	1. Specialised requirements not catered for. 2. Inadequate accounting parameters.
Intent to hold-to-maturity has to be determined where applicable.	1. Real-time decision making 2. Internal systems integration	1. Less management involvement. 2. Inadequate “other“ parameters.
Ability to hold-to-maturity must be measured where applicable.	Not applicable	Not applicable
Maturity dates will have to be identified for each transaction.	Not applicable	Not applicable
Sales from the hold-to-maturity portfolio should be consistently monitored for the testing of the tainting rules.	1. Internal business integration 2. Standardisation	1. Less visible output 2. Less management involvement

Embedded options will have to be identified and split out.	1. Internal systems integration 2. Standardisation	1. Inadequate accounting parameters. 2. Less management involvement
The system must be able to do quantitative tests to determine the applicability of the "close to maturity" and "substantially all" rules as referred to for tainting exceptions.	Not applicable	Not applicable
Where sales are done from the held-to-maturity portfolio, the intent and reason for these sales must be established in order to measure them against the exceptions provided for in par.86, which, if applicable, would result in the held-to-maturity classification of other assets in the portfolio not being questioned due to the sale of a certain part of assets from the portfolio.	Internal business integration	1. Less people. 2. Less visible outputs.
A policy decision is required for the choice of taking unrealised gains/losses to the Income statement or to Equity reserves for available-for-sale assets. It should be noted that under the terms of ED 157, this choice will not exist.	Not applicable	Not applicable.

A split has to be made between trading liabilities and other liabilities.	1. Internal systems integration 2. Real-time decision making	1. Inadequate accounting parameters. 2. Less management involvement
For other liabilities, amortised cost calculations should be performed.	Not applicable	Not applicable
The requirements are therefore to be able to identify intent both with acquisition and with subsequent measurement.	1.Internal business integration 2. Real-time decision making	1. Inadequate “other“ parameters. 2. Less management involvement.
Changes in subsequent intent (applicable to held-to-maturity assets) should be identified.	1.Internal systems integration 2. Internal business integration 3. Standardisation	1. Inadequate “other“ parameters. 2. Less visible outputs. 3. Specialised requirements not catered for.
Where specific intent is claimed, the exceptions for par. 79 should be considered in all cases and consistently.	Internal systems integration	1. Inadequate accounting parameters.
A history of the held-to-maturity portfolio should be kept to adhere to the two-year rule as referred to in par.83.	Internal business integration	1. Less paper flow. 2. Less visible output

A split should be made to indicate which transactions are fair valued and which transactions are measured at amortised cost.	1.Standardisation 2.External business integration 3. Real-time decision making	1. Specialised requirements not catered for. 2. More unknown counterparties. 3. Less management involvement.
Where expected cash payments differ from contractual payments, this should be identified.	1.Internal systems integration	Inadequate “other“ parameters.
Within the fair value group, there should be an indication of which instruments will be valued using market feeds, which will be valued using generic models and which will be valued using specialised models.	Standardisation	Specialised requirements not catered for.
Where models are used, the system should cater for the input of supporting data and the disclosure of major assumptions is required.	Not applicable	Not applicable
Where practical, instruments should be able to be broken down in different elements for fair value calculation.	1. Standardisation 2. External integration	1. Specialised requirements not catered for. 2. More unknown counterparties.
The most important requirement for derecognition is that control will have to be evaluated, considering both the position of	1. Internal business integration 2. External integration	1. Less paper flow. 2. More unknown counterparties.

the holder and the issuer of the instrument. It should further be noted that due to the changes in the Exposure Draft (ED 157), a move towards using “contractual obligation“ rather than “control“ as a measurement approach, the measurement of control will not be dealt with in detail.		
The test for impairment is not much different than that for any other asset. The enterprise will have to be able to determine probable future cash flows and a suitable discount rate, calculate present value and compare this value to the current value. As this has to be done for all assets, this requirement is not seen as a new requirement brought about by this specific standard.	Not applicable	Not applicable.
The system should be able to establish and link the hedged item and the hedging instrument.	1. Real-time decision making 2. Internal systems integration 3. Internal business integration	1. Less management involvement. 2. Inadequate accounting parameters. 3. Less paper flow.
In hedging relationships where only a part	1.Internal system	1. Inadequate “other“ parameters.

of the hedging instrument is used to hedge a specific risk designated to a specific hedged item and another part hedges a different risk linked to a different hedged item, the system should be able to establish and keep the connection (WRA Group 1999).	integration 2. Standardisation	2. Specialised requirements not catered for.
Should one part be sold or become ineffective, the system should be able identify that part and commence with the appropriate accounting treatment – depending on the type of asset (PricewaterhouseCoopers 1999).	Internal business integration	Less visible output.
Forecasted events that are hedged but because of recognition criteria are not in the accounting records as yet should be tracked (WRA Group 1999).	Not applicable	Not applicable.
When a cash flow hedge changes into a fair value hedge, the system should be able to recognise this, generate appropriate accounting entries and follow this relationship through to eventual derecognition.	1. Standardisation 2. Internal systems integration	1. Specialised requirements not catered for. 2. Inadequate accounting parameters.
IAS 39 suggests that treasury systems	Real-time decision	Less management involvement.

(now integrated with the accounting system) should be able to measure hedge effectiveness using models that are consistent with both the designation and objective of the hedge (par 142).	making	
Movement per hedging relationship of both the hedged item and hedging instrument must be measured (par 144, 142) and, together with other information, the models would have to be able to forecast the effectiveness of a hedge (par 142).	1. Internal business integration 2. Internal systems integration	1. Less paper flow. 2. Inadequate accounting parameters.
If a forecast show a hedge probably not being effective, it should be determined whether the model shows the hedge not being effective due to a short-term market movement or not, and to decide if the expectation of management is different and therefore the system will be overriden or not.	Real-time decision making	Less management involvement.
This system should work within the parameters not only of IAS 39, but also of the risk management policy and hedging strategy that management has formulated (WRA Group 1999). Where the net effect	1. Internal business integration 2. Internal systems integration	1. Less paper flow 2.1 Inadequate “other“ parameters. 2.2 Inadequate accounting parameters.

of transactions entered into exceeds the parameters of management‘s strategy, the system should pick this up (par 142).		
The standard requires a detailed written hedge policy and strategy (par 142).	Not applicable	Not applicable
Thirdly, disclosure requirements (most of which were introduced through IAS 32 – Financial instruments: Presentation and Disclosure) require the disclosure of risk management strategies.	Not applicable	Not applicable
IAS 39 requires professional judgement and the application of management‘s intent in both the classification of non-hedging assets and liabilities as well as in determining hedging relationships (PricewaterhouseCoopers 1999).	1. Internal systems integration 2. Standardisation	1. Inadequate “other“ parameters. 2. Specialised requirements not catered for.
The standard requires documentation of not only a wide overall hedging strategy, but documentation of each hedging instrument, the related hedged item or transaction, the nature of the risk being hedged and the effectiveness measurement procedure (par 142).	1. Internal systems integration 2. Internal business integration 3. Standardisation	1. Inadequate “other“ parameters. 2.1. Less paper flow 2.2 Less people 3. Specialised requirements not catered for.

Split between highly probable and not highly probable cash flows for hedging measurement.	Internal systems integration	Inadequate “other“ parameters.
It could be possible that one hedging instrument’s effect be split to accommodate different risks and therefore different accounting treatment.	1. Internal systems integration 2. Standardisation	1. Inadequate accounting parameters. 2. Specialised requirements not catered for.
Separate disclosure for different effects of one hedging instrument.	Not applicable	Not applicable
Calculate hedge effectiveness through net movements of the share portfolio where macro hedge exceptions are applicable.	Standardisation	Specialised requirements not catered for.
The original expectations of the debt issuance (interest rate, premium or discount) should be documented in order to measure effectiveness of hedge where a cash flow hedge of a fixed debt issuance is proposed.	Not applicable	Not applicable
Assessments of probability of future cashflows.	1. Internal business integration 2. Internal systems integration	1. Less people 2. Inadequate “other“ parameters.

An assessment of committed resources should be made to prove "highly probable".	1. Internal business integration 2. Real-time decision making	1. Less people 2. Less management involvement.
A business plan should exist for a cash flow hedge strategy.	Not applicable	Not applicable
Where after-tax hedging is elected, there is a requirement that for each hedged item, the after-tax effect should be calculated separately.	1. Internal systems integration 2. Standardisation	1. Inadequate accounting parameters. 2. Specialised requirements not catered for.
Measurement of hedge effectiveness spanning over financial periods should be possible.	Not applicable	Not applicable
Ineffectiveness must be identified and recognised in the income statement as soon as it occurs.	Not applicable	Not applicable
Actual hedge effectiveness should be measured in relation with the prescribed range.	Not applicable	Not applicable
Documentation of hedge effectiveness	Not applicable	Not applicable

measurement techniques.		
Split between the effective and ineffective portions of hedges.	1. Standardisation 2. Internal systems integration	1. Specialised requirements not catered for. 2. Inadequate accounting parameters.
The split of possible hedge components of one transaction could be required and designated as hedged and unhedged risks.	Not applicable	Not applicable
Tracking of hedging relationships across companies within a group could become a necessity.	Internal systems integration	Inadequate accounting parameters.
Pre-hedging designation percentages must be made and entered into the system where only a portion of a transaction is designated in order to measure hedge effectiveness.	1, Real-time decision making 2. Internal systems integration	1. Less management involvement. 2. Inadequate “other“ parameters.
Where interest rate exposure is hedged as a grossed-up risk, redefine net positions to gross positions.	1. Internal systems integration 2. Standardisation	1. Inadequate accounting parameters. 2. Specialised requirements not catered for.
Where interest rate exposure is hedged as a grossed-up risk, interest rate exposure	1. Internal systems integration	1. Inadequate accounting parameters. 2. Specialised requirements not catered for.

must be grossed up in total.	2. Standardisation	
Measurements of probabilities of pre-payments should be made if pre-payment risk is to be hedged.	1. Real-time decision making 2. External integration	1. Less management involvement. 2. More unknown counterparties.
It generally will be necessary to establish a system to track the changes in the fair value attributable to the hedged risk, associate those changes with individual hedged items, recompute the effective yield of the hedged items, and amortise the changes to net profit or loss over the life of the respective hedged item.	Internal systems integration	Inadequate accounting parameters.
To comply with the requirements for cash flow hedge accounting, it is necessary to determine when the adjustments to equity from changes in the fair value of a hedging instrument should be recognised in net profit or loss.	Not applicable	Not applicable
The system should be able to determine the extent of the net exposure where applicable.	Internal business integration	Less visible output.

The following documentation is required: • The hedging relationship • The enterprise's risk management objective and strategy for undertaking the hedge. • The type of hedge. • The hedged item. • The hedged risk. • The hedging instrument. • The method of assessing effectiveness. • Measurement of the probability of cash flows for cash flow hedging. • Measurement of intent. • Specify the hedging effectiveness testing period used. • Compare cash flows of designated derivative to computation of changes in cash flow of forecasted transactions. • The use of yield curves are required. • Maintenance of a hedge effectiveness schedule.	1. Internal business integration 2. External integration	1. 1. Less paper flow 1.2 Less visible output 2. More unknown counterparties.
Where a portion of a cash flow is hedged, that portion should be clearly identified	Internal systems integration	Inadequate "other" parameters.

from the rest of the cash flow and documented accordingly.		
Portfolio hedging requirements include: • The individual items in the portfolio must be shown to share the same risk for which they are designated and; • The change in the fair value attributable to the hedged risk for each individual item in the group will have to be determined and measured against the change in fair value of the portfolio.	1. Standardisation 2. Internal business integration	1. Specialised requirements not catered for. 2. Less visible output.
Where two or more derivatives are used to be a hedge a specific risk, they will have to tracked and linked for effectiveness measurement purposes.	Internal systems integration	Inadequate accounting parameters.
Where foreign currency hedging is done, internal hedges should be allowed.	Standardisation	Specialised requirements not catered for.
A link must exist between the timing of when the hedged item has an influence on the income statement and the cash flow hedge's influence on the income statement (from equity).	Not applicable	Not applicable

Where inventory is hedged: • A link must between the fair value changes in price and the changes in value of the hedging instrument. • The write-up or write-down will effect the inventory cost basis for IAS 2 requirements.	1. Standardisation 2. Internal systems integration 3. Internal business integration	1. Specialised requirements not catered for. 2. Inadequate accounting parameters. 3. Less people
A measurement for the existence of substantive business purpose may be necessary in order for a hedging instrument to be allowed under hedge accounting rules.	1. Real-time decision making 2. Internal systems integration	1. Less management involvement. 2. Inadequate “other“ parameters.
Counterparty risk has to be measured in assessing hedge effectiveness.	1. External integration 2. Real-time decision making	1. More unknown counterparties. 2. Less management involvement.
A split should be made for future cash flows between: • Highly probable • Not highly probable, but still expected to occur and; • Not expected to occur.	Internal systems integration	Inadequate “other“ parameters.
Forward cover roll-overs will have to be	Not applicable	Not applicable

linked.		
For a hedge of a forecasted transaction, the documentation of the hedge relationship that is established at inception of the hedge should identify the date on or time period in which the forecasted transaction is expected to occur.	Internal business integration	Less paper flow.
Where a non-derivative instrument (carried at amortised cost) is applied as a hedging instrument in order to hedge a foreign exchange rate risk, changes in the fair value of the instrument due to changes in foreign exchange rates should be split from other changes in its fair value that does not affect its amortised cost.	1. Standardisation 2. Internal systems integration.	1. Specialised requirements not catered for. 2. Inadequate accounting parameters.
Accounting treatment will differ where, for a cash flow hedge, the change in the hedged item's fair value is greater than the change in the hedging items fair value, compared to the scenario where it is the other way around.	1. Standardisation 2. Internal systems integration	1. Specialised requirements not catered for. 2. Inadequate accounting parameters.

Annexure 3B[1]

A further explanation is provided of the different subdivisions of the change factors. For this purpose, the following table has been drawn:

Change factor	*Subdivision of change factor*	*Short reference name form matching table*
Internal systems integration	As the transaction, accounting and execution is initiated when the transaction is first entered, there is no breaks in the process for specialised accountants or management to intervene. Therefore, the initiator might not have the knowledge to apply specialised accounting parameters.	Inadequate accounting parameters.
	The initiator might not have the background knowledge to set initial parameters for intent or other required	Inadequate "other" parameters.

[1] Refer to point 2 and 2.2 of chapter 4 of main text

	management decisions.	
Internal business integration	Less people are involved in the system, which suggests that there are less specialist involvement.	Less people.
	Less paper flow.	Less paperflow.
	Less visible outputs – with less of an audit trail and transactional history.	Less visible outputs.

External integration	More counterparties that are less known. This influences credit risk management.	More “unknown“ counterparties.
Real-time decision making	To stay abreast with the speed of transactions, there will be less time available for making decisions on individual transaction classifications.	Less specific management involvement.
Standardisation	Where programs, file types or processes are standardised, there could be a risk that the system cannot accommodate specialised or “irregular“ transactions.	Specialised requirements not catered for.

Annexure 4

Explanation of methodology used for analysis diagrams presented in main text

In chapter 4 of the main text, a number of diagrams are presented based on the outcome of the matching table (annexure 3A). This annexure sets out the methodology used in the compilation of these diagrams.

Affected requirements vs. not affected requirements

The first column of the matching table lists of all the IAS 39 requirements identified in chapter 2. Compliance with certain of those requirements would not be affected by a change in the treasury system.

The second column of the matching table lists the matching change factors for each identified IAS 39 requirement. Where there are no matching change factors (the IAS 39 requirement is thus not affected by a treasury system change), the words "not applicable" has been entered into the second column.

This diagram shows the percentage of IAS 39 requirements that is not affected by the change in treasury system vs. the percentage of IAS 39 requirements that are affected by the change in treasury system.

The total number of IAS 39 requirements listed in the first column of the matching table was calculated. For purposes of this explanation this will be referred to as "A".

The total number of IAS 39 requirements that had the words “not affected” in the corresponding line of the second column was then calculated, referred to as “B” below.

B divided by A multiplied by 100 = requirements not affected

100 minus the answer of the equation above = requirements affected.

Concentration of change factors

Five main change factors were identified in chapter 3. In the matching table, the relevant change factors were matched per IAS 39 requirement listed in the first column. These change factors were listed in each corresponding line of the second column of the matching table.

For certain IAS 39 requirements, more than one change factor was listed in the corresponding line of the second column. Furthermore, the same change factor could affect a number of different IAS 39 requirements.

For each one of the five change factors, the number of occurrences per change factor (listed in the second column of the matching table) was calculated. For purposes of the explanation:

C = total number of occurrences of the “systems integration” change factor.

D = total number of occurrences of the “business integration” change factor.

E = total number of occurrences of the “external integration” change factor.

F = total number of occurrences of the “standardisation” change factor.

G = total number of occurrences of the “real-time decision making” change factor.

C + D + E + F + G = Total number of identified change factors (referred to as “H”)

From this:

C divided by H multiplied by 100 = % of total matches for “systems integration.”

D divided by H multiplied by 100 = % of total matches for “business integration.”

E divided by H multiplied by 100 = % of total matches for “external integration.”

F divided by H multiplied by 100 = % of total matches for “standardisation.”

G divided by H multiplied by 100 = % of total matches for “real-time decision making.”

Analysing the subdivisions of each change factor

For two of the change factors identified in chapter 3, subdivisions for each one were listed. These subdivisions are explained in annexure 3B.

Where a change factor with subdivisions was listed in the second column of the matching table, the specific subdivision that was relevant to that specific match (and specific IAS 39 requirement) was listed in the third column of the matching table.

The same subdivision change factor could affect a number of different IAS 39 requirements.

Internal systems integration split

In the first instance, the relevant change factor listed in the second column of the matching table was “internal systems integration.” For each occurrence of this change factor, the corresponding line in the third column of the matching table listed the specific relevant subdivision, either “accounting parameters,” “other parameters” or both.

For each one of the subdivisions, the number of occurrences per subdivision (listed in the third column of the matching table) was calculated.

For purposes of this explanation:

I = total number of occurrences of the “accounting parameters” subdivision.

J = total number of occurrences of the “other parameters” subdivision.

I divided by (I plus J) multiplied by 100 = % “accounting parameters” subdivision.

J divided by (I plus J) multiplied by 100 = % “other parameters” subdivision.

Internal business integration split

In the second instance, the relevant change factor listed in the second column of the matching table was “internal business integration.” For each occurrence of this change factor, the corresponding line in the third column of the matching table listed the specific relevant subdivision, either “less people,” “less paper flow,” “less visible output” or a combination of the three.

For each one of the subdivisions, the number of occurrences per subdivision (listed in the third column of the matching table) was calculated.

For purposes of this explanation:

K = total number of occurrences of the “less people” subdivision.

L = total number of occurrences of the “less paper flow” subdivision.

M = total number of occurrences of the “less visible output” subdivision.

K divided by (K plus L plus M) multiplied by 100 = % “less people” subdivision.

L divided by (K plus L plus M) multiplied by 100 = % “less paper flow” subdivision.

M divided by (K plus L plus M) multiplied by 100 = % “less visible output” subdivision.

% of requirements affected by several change factors

As mentioned above, five main change factors were identified in chapter 3. In the matching table, the relevant change factors were matched per IAS 39 requirement listed in the first column. These change factors were listed in each corresponding line of the second column of the matching table.

For certain IAS 39 requirements, more than one change factor was listed in the corresponding line of the second column.

For each of the IAS 39 requirements, the number of listed change factors (listed in the second column of the matching table) was calculated. For purposes of the explanation:

N = total number of times that no change factors were listed.

O = total number of times that one change factor per IAS 39 requirement was listed.

P = total number of times that two change factors per IAS 39 requirement were listed.

Q = total number of times that three or more change factors per IAS 39 requirement were listed.

N + O + P + Q = Total number of identified IAS 39 requirements (referred to as “R”)

From this:

N divided by R multiplied by 100 = % of requirements affected by none change factors.

O divided by R multiplied by 100 = % of requirements affected by one change factor.

P divided by R multiplied by 100 = % of requirements affected by two change factors.

Q divided by R multiplied by 100 = % of requirements affected by three plus change factors.

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