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FINANCIAL INSTRUMENTS STANDARDS

A Guide on IAS 32, IAS 39 and IFRS 7

Author's Profile

Pooja Gupta is a qualified Chartered Accountant, Company Secretary, LL.B and has completed her Masters in Finance from Frankfurt University. She has 11 years of extensive professional experience in Investment Management and Financial Services acquired during her stints with the Big Four consulting groups in Europe as well as in India. She now holds a senior post in Standard Chartered Bank.

In the accounting fraternity she was elected, with the highest number of votes, as the Youngest Regional Council member of the Institute of Chartered Accountants of India. She has served as the Council Member of WIRC- ICAI for 3 years.

She has been honoured with the CA Young Leader award by the ICAI in 2008 for demonstrating exceptional courage, excellence and thorough professionalism in the corporate world and has thus become an exemplary role model for all to emulate. She therefore, undoubtedly occupies a prominent place amongst the leading and eminent luminaries of India Inc.

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A Guide on IAS 32, IAS 39 and IFRS 7

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Standard Chartered Bank,
Mumbai

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To
my mother Saroj and sister Neetu
as a token of my love and affection.
Thank you both for everything you have
done to make me a stronger person and
aim higher in life.

The Book in Perspective

S. M. KRISHNA
GOVERNOR OF MAHARASHTRA

सत्यमेव जयते

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17 January 2008

Considering Pooja Gupta's brilliant academic qualification and experience as a consultant on accounting and financial reporting issues, I am sure this well-researched book will be useful to the corporates, accountants and auditors involved with preparation and analysis of financial statements.

I congratulate Pooja Gupta for writing this book at just the right time and hope that it will be welcomed by its discerning readers.

(S.M. Krishna)

Foreword

The last couple of years have witnessed companies around the world, particularly in Europe and the Asia-Pacific area, switching from national accounting standards to International Financial Reporting Standards (IFRS). While this has been welcomed by investors and other stakeholders for providing invaluable new insights about the companies' financial condition and performance, practitioners continue to grapple with interpretations and practices that are evolving in areas where the standards are not explicit.

Much has been written about the controversy surrounding the adoption of these standards but less has been written about how to apply them. Pooja Gupta's *Financial Instruments Standards: A Guide on IAS 32, IAS 39 and IFRS 7* serves as a practical and thorough reference for those applying these complex international financial reporting standards.

Written in a lucid and simple language, this book guides the reader through the complex rules and supplements the application and implementation guidance in the standards with interpretation and analyses based on several years of careful research. The worked out examples help to illustrate the explanations and show exactly how even the most complex calculations and disclosures should be made.

Contrary to popular belief, IAS 39 does not advocate full fair value accounting, nor is it merely about hedging. This book deals with all aspects of hedge accounting, as well as other aspects of the standards that are difficult to understand, such as embedded derivatives and de-recognition of financial assets, and will be of particular interest to those involved in preparing and using company financial statements under IFRS.

Given the significant implications of IFRS on earnings and volatility, capital and product profitability, this book, with it's straight-forward and easy-to-understand approach, is a very welcome addition to any financial professional's desk.

Sanjeev Agrawal
CFO, Singapore and South East Asia
Standard Chartered Bank

Preface

Why not invest your assets in companies you really like? As Mae West said, "Too much of a good thing can be wonderful".

—Warren Buffet

The much awaited deadline of 2005 for the adoption of International Financial Reporting Standards (IFRS) for all the listed companies of the European Union has long passes. A stable platform of high quality IFRS have now been disseminated by the International Accounting Standards Board. India is among the many countries around the world committed to adopting IFRS directly or to align the national standards with IFRS from the year 2011.

The requirements of financial instruments are complex and the entities should take time to understand them including the impact on systems, processes and documentation. The road to revised financial instruments has been a long one. The Exposure Draft itself provoked considerable comments and many people participated in roundtable discussions. During 2000 and 2001, the IAS 39 Implementation Guidance Committee issued more than 200 question and answer interpretations of the standard based on questions and issues raised by entities and their auditors. The complexity and the volume of the guidance continue to challenge the entities as their understanding of the basic requirement deepen.

In IFRS, IAS 39 is the most talked about and controversial standards. So, why is IAS 39 such a big issue? IAS 39 introduces fair value measurement for a number of financial instruments, not just derivatives, and consequently will lead to much greater earnings volatility than witnessed under the Indian GAAP. IAS 39 is criticised by commentators on a number of levels, ranging from its "mixed model" approach to measuring instruments (some at fair value others at amortised cost) to arguments that it is a "rules based" standard rather than one founded on "principles". Both of these criticisms are to an extent fair, but the standard attempts to provide a framework for consistent and comparable treatment of financial

instruments, which is no small task. The ever-increasing complexity of transactions that are undertaken by many companies means that a standard such as IAS 39 will always be tested and potentially found wanting.

This book contains chapters providing an overview of the key issues associated with and application of IAS 32: Presentation and IFRS 7: Disclosures. The practitioners, users, auditors and regulators of accounts in resolving myriad practical problems faced in applying the financial instruments standards. It explains the theory of the standards in sufficient detail to serve as valuable adjunct to accounting textbooks.

In presenting the subject matter, help has been taken from the works of numerous experts in the field. I am deeply indebted to my colleagues in the accounting fraternity for their selfless assistance. My thanks go particularly to those who reviewed drafts, to the publishers, McGraw-Hill Education (India) Pvt. Ltd. for their support, cooperation and assisting attitude. And finally but immensely, my sincere thanks to my family for keeping my spirits up and my hamstrings in working order.

Any comments from readers, pertaining to errors and omissions and proposed improvements are welcome.

Pooja Gupta

Contents

CHAPTER 1

Prelude to the Financial Instruments Standards

1.1 WHY DO WE NEED STANDARDS ON FINANCIAL INSTRUMENTS?

During the '90s the accounting standards did not keep pace with market derivatives activities. The publicity surrounding large derivative instrument losses at several companies had heightened the concern about accounting for derivatives. In 1993, the Global Derivatives Study Group (G30) proposed certain principles and disclosures, and recommended the harmonization of accounting standards in this area.

The International Accounting Standards Committee (IASC) predecessor of the International Accounting Standards Board (IASB) and other standard-setters began developing requirements for financial instruments over ten years ago. The timescale indicates the difficulties involved in reaching to an agreement. One of the challenges is to develop principles that will survive the test of time by continuing to meet their objectives for the range of new products and structures that continues to develop. The original concern was that there is an increasing use of an ever-wider range of derivative instruments to manage risk and perhaps, for speculation.

Derivatives were often not recognized on the balance sheet and there was little disclosure about the extent of derivative use, the policies used

to manage interest rate and currency risk and the risks to which a company exposes itself through derivatives.

These concerns could perhaps be dealt with through disclosures and presentation, as required by IFRS 7: *Financial Instruments: Disclosures* and IAS 32: *Financial Instruments: Presentation,* except that the range of derivatives in use has expanded to include options, caps, collars, floors, futures, swaptions, butterfly spreads, inverse floaters, and so on in various combinations, and covering an increasing range of underlying indices. At the same time, corporate treasury functions have become more sophisticated using (and creating new demand for) increasingly complex derivatives to manage risk. Increasingly these treasury functions have flexibility to operate within defined risk limits, taking market positions that blur the distinction between risk management and trading. This has led to demands not just for detailed disclosure but also for all derivatives to be marked-to-market. Requirements for marking derivatives to market naturally lead to similar demands for other financial instruments. Concerns about derivatives are closely linked to concerns about hedge accounting and hence calls for restrictions on the ability to defer hedging gains and losses. The standard-setters' response to these demands, for the present, is IAS 39: *Financial Instruments: Recognition and Measurement*.

1.2 Highlights of the Standards

Prior to the issuance of IFRS 7, IAS 32 and IAS 39 there was no comprehensive guidance in IFRS addressing financial instruments, particularly for derivatives. IAS 39 introduced new requirements for the recognition, de-recognition and measurement of an entity's financial instruments and for hedge accounting. IFRS 7 and ISA 32 introduced the disclosure and presentation requirements. The adoption of IAS 39 is a monumental shift with a lot of financial instruments being treated as on balance sheet which were not there before.

The outline of the financial instruments standards are summarized in the Figure 1.1.

1.2.1 Disclosures and Presentation

- Establishes principles for distinguishing between liabilities and equity. The substance of a financial instrument rather than its legal form, governs its classification.

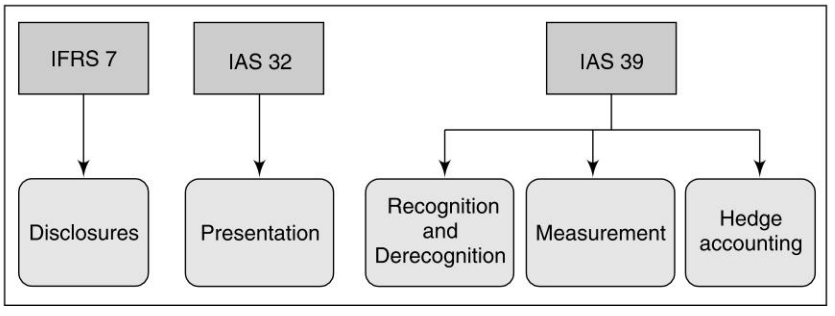


Fig. 1.1 Financial Instruments Standards

- Netting of financial assets and financial liabilities specified. Netting requires a legal right of set-off as well as the intention to offset the assets and liabilities or settle simultaneously.
- The liability and equity components of compound instruments are accounted for separately. Such instruments, e.g. bonds that are convertible into equity shares either mandatorily or at the option of the holder, must be split into liability and equity components. Each of these is then accounted for separately. The liability element is determined first by fair valuation of the cash flows, excluding any equity component; the residual is assigned to equity.
- Qualitative and quantitative disclosures about financial instruments, financial risk management and hedging activities are required. In addition, fair value information and other quantitative disclosures of income and expense, and gains and losses from financial instruments are also required.
- Required disclosures include the manner in which fair value is determined as well as methods and significant assumptions, and risk management objectives and policies for hedging. Disclosures should note the significant terms and conditions of instruments as well as information about the nature and extent of risks arising from financial instruments to which the entity is exposed during the period and at the reporting date, and how the entity manages those risks.

1.2.2 Recognition and De-recognition

- All financial assets and financial liabilities including derivative instruments, should be recognized in the balance sheet.

- Financial assets and liabilities are initially measured at fair value.
- A financial asset or part of a financial asset is de-recognized when the rights to the cash flows from the asset expire, or the rights to the cash flows from the asset and substantially all risks and rewards of ownership of the asset are transferred, or an obligation to transfer the cash flows from the asset is assumed and substantially all risks and rewards are transferred, or substantially all the risks and rewards are neither transferred nor retained but control of the asset is transferred. IAS 39 is complex and restrictive in this area. It provides guidance for transactions such as factoring and securitizations. Entities converting to IFRS may find assets that were de-recognized under previous GAAP may have to be included on the balance sheet in their IFRS financial statements.
- A financial liability is removed from the balance sheet only when it is extinguished, i.e. when the obligation specified in the contract is discharged or cancelled, or expires.

1.2.3 Measurement

- Subsequent measurement of financial assets and liabilities depends on the classification:
  - trading assets and liabilities and available-for-sale assets are measured at fair value
  - loans and receivables and held-to-maturity investments are carried at amortized cost
- The classification determines if and where any re-measurement to fair value is recognized in an entity's financial statements.
- The best evidence of fair value are the market prices quoted in an active market. Re-measurement to fair value must be performed at each financial reporting date.
- If quoted market prices are not available, entities use valuation techniques incorporating observable market data.
- Cost less impairment is a last resort for investments in unlisted equity instruments.
- Objective evidence that a loss has been incurred is required before-calculating an impairment loss.

1.2.4 Derivatives and Hedge Accounting

- Under IAS 39, all derivatives (including some embedded derivatives) must be measured at fair value in the balance sheet. This is regardless of whether they are categorized as trading or as hedging instruments. In case of trading or hedging instruments that are a part of a hedge relationship, all fair value gains and losses are recognized immediately in the income statement. A gain or loss on available-for-sale financial assets shall be recognized directly in equity.
- Hedge accounting is a choice that each entity makes for each economic hedge that it has in place. The choice reflects a trade-off between the cost of achieving hedge accounting and the potential benefit achieved by reducing the income statement volatility that would otherwise arise. In some circumstances, the standard prohibits hedge accounting.
- In order to qualify for hedge accounting, an entity must designate its hedge relationships and document how it will measure effectiveness. Each individual relationship between a derivative and its hedged asset, liability or future cash flow must be documented separately.
- Hedge accounting is permitted provided the entity can establish that each hedge has been highly effective during each reporting period. In order to continue hedge accounting, there must be an expectation that future gains and losses on the hedged item and hedging instrument will be almost fully offset.
- There are three hedge accounting models under IAS 39—the fair value hedge, the cash flow hedge and the hedge of a net investment in a foreign operation. The appropriate accounting model for a hedge relationship depends up on the nature of the item being hedged.
- Implementing these requirements can involve significant system amendments, particularly when a large number of derivatives are used as hedging instruments.

CHAPTER 2

Scope of Financial Instruments Standards

2.1 DEFINITION

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

The term financial instrument is not limited to off-balance sheet derivative instruments, but as an umbrella term covers *the entire spectrum of financial instruments used in the financial world*. Financial instruments include both classical, primary instruments (such as deposits, loans and securities) as well as innovative derivative financial instruments.

2.2 CATEGORIZATION

Financial instruments can be categorized by form depending on whether they are **cash instruments** or **derivative instruments**.

- **Cash instruments** are financial instruments whose value is determined directly by the markets. They can be divided into securities, which are readily transferable and other cash instruments such as loans and receivables, and deposits where both borrower and lender have to agree on a transfer.

- **Derivative instruments** are financial instruments which derive their value from the price of an underlying asset such as stock, bond, currency or commodity. They can be divided into exchange-traded derivatives and over-the-counter derivatives (OTC). The key feature of the transaction specified in a derivative contract is that it will be executed in the future rather than at present.

2.3 Scope of Financial Instruments Standards

The scope is very wide-ranging. The standards apply to all entities and to all types of financial instruments except those specifically excluded from the scope of financial instruments standards.

Table 2.1 Scope of Financial Instruments Standards

Sr. No	Within the scope	Limited scope	Out of scope
1.	Cash and cash equivalents		
2.	Debt and equity Instruments		▪ Interest in subsidiaries, associates or joint ventures accounted for in IAS 27; IAS 28 or IAS 31: **(Note 1)**
3.	Loans and receivables	▪ Lease receivables recognised by the lessor are subject to the de-recognition and impairment provisions (IAS 39)	
4.	Own debt	▪ Finance lease payables recognised by lessee are subject to de-recognition provisions only (IAS 39)	▪ Tax balances ▪ Employee benefits (IAS 19)

(*Contd.*)

(*Contd.*)

Sr. No	Within the scope	Limited scope	Out of scope
5.	Derivatives ■ Forwards ■ Futures ■ Options ■ Swaps ■ Cash/Net settleable derivatives on own shares (IAS 32) ■ Derivatives on subsidiaries, associates or joint ventures		■ Own use commodity contracts ■ Weather derivatives ■ Contingent consideration in a business combination recognised by the acquirer (IFRS 3)
6.	Embedded derivatives		
7.	Loan commitments held-for-trading (**Note 2**)	■ Other loan commitments are subject to de-recognition provisions of IAS 39	■ Other loan commitments (IAS 37)
8.	Financial guarantees issued		■ Insurance contracts (IFRS 4)

Note 1: *Interest in subsidiaries, associates or joint ventures*
Financial Instrument Standards shall apply in cases where as per IAS 27 (Consolidated and Separate Financial Statements), IAS 28 (Investments in Associates) or IAS 31 (Interest in Joint ventures); such interests are to be accounted for under IAS 39. For example, Financial Instrument Standards will apply to derivatives on interest in subsidiaries, associates or joint ventures.

Note 2: *Loan commitments*
Loan commitments are excluded from the scope of IAS 39 if they are not designated at fair value through profit or loss, cannot be settled net and do not involve a loan at a below market interest rate.

Some Examples of Financial Instruments

- Cash
- Demand and time deposits
- Commercial paper
- Accounts, notes and loans receivables
- Debt and equity securities. The equity securities are financial instruments from the perspective of the holder
- Asset-backed securities such as collateralized debt obligations, re-purchase agreements and securitized package of receivables
- Derivatives including options, warrants, rights, futures, forward contracts, swaps, etc.
- Securitized lease receivables and embedded derivatives

CHAPTER 3

Presentation

3.1 DEBT–EQUITY CLASSIFICATION

Since IAS 39 does not address accounting for equity instruments issued by a reporting enterprise but does deal with accounting for financial liabilities, classification of an instrument as a liability or as equity is critical. IAS 32: *Financial Instruments: Presentation* addresses the issue of classification. The substance of a financial instrument rather than its legal form, governs its classification.

The primary factor in distinguishing a financial liability and an equity instrument is the existence of a contractual obligation for the issuer to make payments (principal, interest or dividends, or both).

Any instrument that an issuer may be obliged to settle in cash or another financial instrument is a liability regardless of the manner in which it could otherwise be settled, the financial ability of the issuer or the probability of the settlement being required. Only when an instrument does not give rise to a contractual obligation on the part of the issuer, it is equity.

An instrument is classified as equity when it represents a residual interest in the net assets of the issuer. Equity instruments include shares, options, warrants and any other instruments that evidence a residual interest in an entity and do not incorporate contractual obligation for the issuer to deliver cash or another financial asset, or to exchange

financial instruments under potentially unfavorable conditions. The equity or liability classification is made at initial recognition and is not revised as a result of subsequent changes in circumstances. Figure 3.1 provides a guideline on classifying an instrument as an equity or a liability.

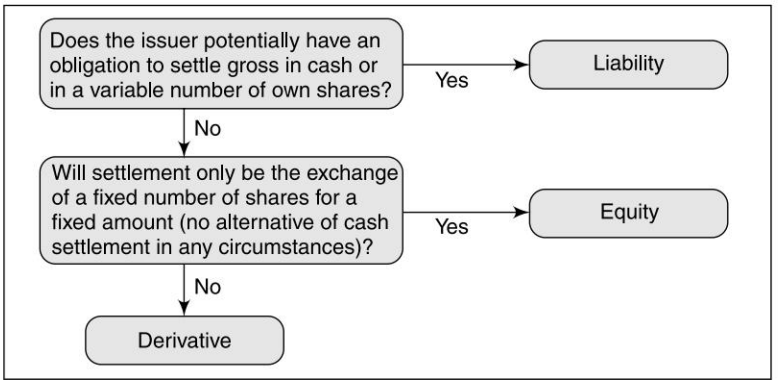


Fig. 3.1 Decision Tree for Classification as an Equity or a Liability

The treatment of interest, dividends, losses and gains in the income statement follows the classification of the related instrument. If an instrument is classified as a liability under IFRS, its coupon payments and any amortization of discounts or premiums are recognized as finance costs in the income statement. If an instrument is classified as equity, the dividends declared and paid are accounted for in equity and do not flow through the income statement.

Table 3.1 illustrates the decision process for determining whether an instrument is a financial liability or an equity instrument.

3.2 Types of Instruments

3.2.1 Compound Instruments

A financial instrument may include both liability and equity components. In such cases, the instrument should be classified into its component parts. These must be presented separately in the balance sheet. As noted previously, the classification of the equity and the liability components of an instrument is based on the substance rather than the form of the components. The allocation of the instrument into its component parts should be performed on initial recognition of the compound instrument such that no gain or loss is recognized.

Table 3.1 Process for Determining whether an Instrument is a Liability or Equity

Instrument	Cash obligation for principal	Cash obligation for coupon/ dividends	Settlement in fixed number of shares	Classification
Ordinary shares Redeemable preference shares with fixed dividend each year	No Yes	No Yes	N.A. No	Equity Liability
Redeemable preference shares with discretionary dividends	Yes	No	No	Liability for principal and equity for dividends
Convertible bond which converts into fixed number of shares	Yes	Yes	Yes	Liability for bond and equity for conversion option
Convertible bond which converts into shares to the value of the liability	Yes	Yes	No	Liability

The recommended approach to perform the allocation is as follows.

- Determine the amount to allocate to the liability element. This is the future interest and principal cash flows on the liability component, discounted at a rate applicable to a similar liability without an equity component.
- Allocate the balance of the issue proceeds to the equity element.

A common example of a compound instrument is convertible debt issued by an entity. The instrument consists of a financial liability plus an

option issued to the holder to convert the instrument into equity shares of the issuer. Convertible bonds typically are issued with a low interest coupon because investors view the ability to convert the instrument to the issuer's shares as an opportunity to participate in the potential upside from an increase in share price. Separating the convertible bond into its equity component (i.e. the conversion feature) and liability component creates an additional discount on the liability that is amortized and recognized in the income statement as interest expense until the date of redemption (or conversion if that occurs earlier).

Transaction costs which are incremental and directly attributable to the issue of compound instrument must be allocated to the liability and equity component of the instrument in proportion to the allocation of proceeds.

Case 3.1 Issue of a Convertible Bond

PP Ltd issues 1000 bonds convertible into its own shares in 3 years. The convertible bond has a face value of Rs.100 and bears a coupon rate of 4%, which is below the current market rate for non-convertible debt instruments of similar entities. The current market interest rate for similar debt without conversion options is 6%. PP Ltd must determine the liability and equity components of the instrument. The liability component is determined to be Rs 94,652. The equity component is assigned the remaining amount of Rs 5,348. In addition to the 4% interest expense recognized, PP Ltd must also amortize the discount of Rs 5,348 over the term of the bond. The coupon interest plus the amortization amount should result in PP Ltd recognizing interest on similar such debt without conversion option, issued around the same time when the bond was issued.

3.2.2 Perpetual Instruments

Perpetual debt instruments normally provide the holder with a contractual right to receive interest payments extending into the indefinite future, with no right to a return of principal. Even though the holder may not receive a return of principal, such instruments are a liability for the issuer as there is a contractual obligation to make a stream of future interest payments to the holder. The face value or the carrying amount of the instrument reflects the present value of the holder's right to receive regular interest in perpetuity.

3.2.3 Preference Shares

Preference shares provide the holder with certain rights. Preference shares could have rights or characteristics that meet the definition of a liability rather than equity; therefore, these must be considered when determining the appropriate classification. Preference shares that provide for redemption at the option of the holder give rise to a contractual obligation and should be classified as a liability. Where preference shares are not redeemable at the option of the holder the appropriate classification depends on the other terms of the preference shares, in particular the dividend rights attached to the shares. If the dividends are not discretionary, then the obligation to pay dividends gives rise to a contractual obligation. Preference dividends that are payable at a specified rate require special attention and in many cases are not discretionary.

A typical example is a cumulative perpetual preference share where the issuer

(a) must pay a dividend on the preference shares if it pays a dividend on its ordinary shares

(b) if it does not pay a dividend on its ordinary shares, the preference dividend may be deferred (i.e. it is cumulative).

This so-called dividend stopper feature does not by itself create an obligation. However, the deferral feature will allow the instrument to be classified as equity only if: (a) the accumulated dividends can be deferred indefinitely, even until the entity is liquidated, and (b) there is no other feature of the instrument that would indicate that its substance is a liability. For example, if the deferred accumulated dividends accrue interest to compensate the holder for the deferral period, then the substance of the instrument is a liability.

3.2.4 Instruments to be Settled in Own Equity

3.2.4.1 Obligation to Settle in Cash or a Variable Number of Own Equity Shares

If an entity has an obligation that it can settle either by payment of financial assets or by payment in the form of its own equity shares, there may be an issue as to whether the obligation is a liability or equity. If the number of equity shares required to settle the obligation varies with changes in fair value such that the total fair value of the

equity shares transferred is always equal to the amount of the contractual obligation, then the holder of the obligation is not exposed to a gain or loss from the price of the equity shares. Therefore, such an obligation should be accounted for as a liability.

Similarly, an entity may hold a forward, option, or other derivative instrument whose value changes in response to something other than the market price of the entity's own equity securities, but that the entity can choose to settle in its own shares. This would not be accounted for as an equity instrument, but rather as a derivative instrument, as the value of the instrument is unrelated to the changes in fair value of the entity's own shares. For example, N Ltd enters into a forward contract with a bank and intends to settle with its own shares in 6 months. The number of shares to be delivered at that time is based on the change in share price of P Ltd during the same period. If P's share price is lower at the end of 6 months, N will deliver fewer of its own shares to the bank. In this case, the number of N shares to be delivered always equals the value of the derivative based on P's share price. The instrument is therefore, classified as a derivative.

3.2.4.2 Share Warrants or Options

An option or warrant on an entity's own equity is not accounted for as an obligation when issued if there is no requirement for repayment in cash or other financial assets and the contract will be settled by the entity issuing a fixed number of its own shares. In such cases the entity does not have a contractual obligation to settle in a financial asset or to exchange financial instruments under conditions that are potentially unfavorable. If an entity issues a warrant or option on its own shares and the holder has a right to request cash settlement, or if the transaction has to be settled in cash, the instrument is a liability. The entity is either required to settle in cash or can be compelled by the holder to settle in cash. As a result, it has an obligation to deliver cash or exchange financial instruments (i.e. receive shares and deliver cash in this case).

3.2.4.3 Obligation to Settle in Cash or Shares, Depending on the Outcome of Uncertain Events

If an instrument will be settled by an entity issuing its own shares or in cash depending on the outcome of uncertain future events that are beyond the control of the holder or the issuer, the instrument should be classified as a liability (as a default treatment) unless the probability of settlement

in cash or another financial asset is remote. It is only in cases where settlement in cash or another financial asset is extremely unlikely that such an instrument is not treated as a liability.

Figure 3.2 illustrates the process of classifying instruments to be settled in own equity as a liability or an equity.

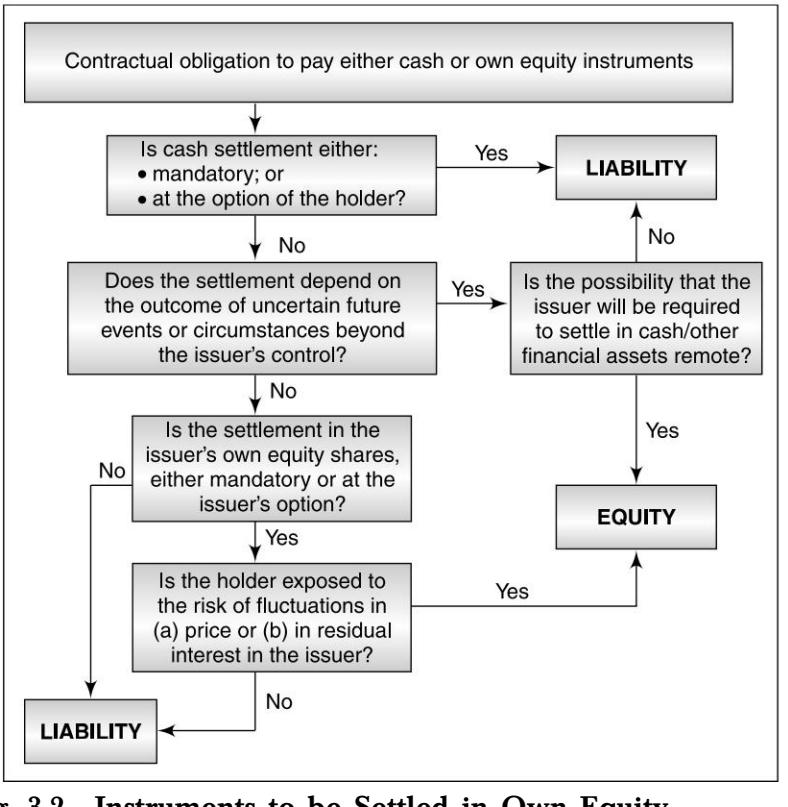


Fig. 3.2 Instruments to be Settled in Own Equity

3.2.5 Treasury Shares

Treasury shares are the shares that have been re-purchased by the issuing company. A treasury share is created when a company does a share buyback and purchases its shares on the open market. These shares do not pay dividends, have no voting rights, and should not be included in shares outstanding calculations. On the balance sheet, treasury shares shall be deducted from equity. This applies whether the equity instruments are cancelled or held for resale. Any profit or loss on the purchase, sale, issue or cancellation of treasury shares or in respect of changes in the

value of treasury shares shall not be recognized in the profit and loss account.

These shares can be acquired and held by the issuing company or by other members of the consolidated group. Any consideration paid or received shall be directly recognized in equity.

The amount of treasury shares is disclosed separately either on the face of the balance sheet or in the notes, in accordance with IAS 1: *Presentation of Financial Statements*. If an entity reacquires its own equity instruments from related parties then it should disclose the shares in accordance with IAS 24: *Related Party Disclosures*.

3.3 Offsetting a Financial Asset and a Financial Liability

3.3.1 The Two Conditions

Financial assets and liabilities shall be offset and the net amount reported in the balance sheet when, and only when both of the following conditions are met:

- there is a legally enforceable right to set-off the recognized amounts and
- there is the intention to settle on a net basis or to realize the asset and settle the liability simultaneously

These requirements may apply to instruments such as receivables and payables with the same counterparty if a legal right of offset is agreed between the parties and there is an intention to do so. Netting-off the assets and liabilities that the entity has with unrelated counterparties will not be apt.

3.3.2 Master Netting Agreements

Derivative instruments, though issued by the same counterparty do not come under the purview of offsetting, even if there are master netting agreements in place. An entity that undertakes numerous financial instruments with a single counterparty may enter into a 'master netting arrangement' with that counterparty. Such an agreement provides for a single net settlement of all financial instruments covered by the agreement in the event of default, on or termination of, any one contract. A master

netting agreement commonly creates a right of set-off that becomes enforceable and affects the realization or settlement of financial assets or liabilities only following a specified event of default or in circumstances not expected to arise in the normal course of business. A master netting agreement does not provide a basis for offsetting unless both the conditions mentioned above are satisfied. Therefore, derivatives with positive and negative fair values are generally reported gross, as assets and liabilities respectively. Hedging instruments and the related items being hedged do not generally meet the conditions for offset. Therefore, the fair values of hedging derivative instruments should be shown as separate assets or liabilities in the balance sheet and not presented in the same balance sheet line item as the hedged item.

3.3.3 Inappropriate Offsetting

In the following situations as specified by IAS 32, offsetting would be considered inappropriate because the two conditions mentioned are not satisfied:

(i) Several different financial instruments are used to emulate the features of a single financial instrument (a 'synthetic instrument'). For example a floating-rate debt combined with an interest rate swap that involves receiving floating and making fixed payments synthesizes a fixed rate debt. Accordingly, when one financial instrument in a synthetic instrument is an asset and another is a liability, they are not offset and presented on an entity's balance sheet on a net basis unless they meet the two conditions specified earlier.

(ii) Financial assets and financial liabilities arise from financial instruments having the same primary risk exposure (for example, assets and liabilities within a portfolio of forward contracts or other derivative instruments) but involve different counterparties.

(iii) Financial or other assets pledged as collateral for non-recourse financial liabilities.

(iv) Financial assets are set aside in trust by a debtor for the purpose of discharging an obligation without those assets having been accepted by the creditor in settlement of the obligation (for example a sinking fund arrangement).

(v) Obligations incurred as a result of events giving rise to losses are expected to be recovered from a third party by virtue of a claim made under an insurance contract.

Chapter 4

Derivatives

4.1 What is a Derivative?

The standard describes a derivative as an instrument:

- whose value changes in response to changes in an underlying price or index
- that requires little or no initial net investment (or significantly less than the investment required to purchase the underlying instrument)
- that is settled at a future date

A derivative usually has a notional face value or reference amount which is the 'volume' of the contract. Applying the volume to a change in the underlying price determines the amount to be exchanged at the settlement date.

One can be easily overwhelmed by the apparently countless types of derivative instruments traded in the marketplace. Do not be misled however; derivatives are not nearly as mystifying as they may seem. Fundamentally, there are only two types of contracts—a forward and an option. A forward is a contract to buy or sell an underlying asset at some pre-specified future date at a price agreed upon today. No money changes hands until the expiration date, at which time the buyer pays the cash and the seller delivers the underlying asset. An option is also a contract to buy or sell an underlying asset at some pre-specified future

date at a price agreed today. Unlike a forward however, the buyer has the right but not an obligation to buy or sell the underlying asset at the option expiration. The seller's obligation depends upon whether or not the buyer chooses to exercise the option.

The standards cover both forward and option-type derivatives whose underlying is, for example:

- an interest rate
- a security price
- a commodity price
- an exchange rate
- a credit rating
- an index of any of the above

The only exceptions are own use commodity-based derivatives:

(a) whose contractual provisions do not allow net cash settlement

(b) that permit cash settlement but are expected to be settled by delivering the commodity and are entered into to meet the enterprise's expected purchase, sale or usage requirements

An example would be a contract entered into by a confectioner to purchase cocoa at a fixed price to meet its manufacturing needs. This is no different from a contract to purchase a piece of equipment, which by convention is also not treated as a derivative.

4.2 Accounting for Derivatives

All derivatives are recognized on the balance sheet. They are initially measured at fair value. Where a forward-type derivative is transacted at market rates, there will be no initial net investment (zero cost), therefore the contract is recognized initially at an amount of zero. Option-type derivatives involve the payment of an initial premium to compensate the risk accepted by the seller/writer and the potential benefit to the holder. The premium paid is the fair value to the holder, and the writer of an option will initially record the amount received as a liability.

Subsequently, derivatives are measured at their fair value. Over time, market expectations of the price of the underlying at the settlement date will change.

The amount that the market would pay or accept, to settle or 'close out' a derivative will change and this is its fair value. At the settlement date the fair value of a derivative is the net settlement amount, which is zero for an 'out of the money' option. The carrying amount of a derivative will fluctuate over its life depending on changing market expectations; it could be positive (an asset) or negative (a liability) at various times.

Some markets are highly standardized so that prices are readily available and, for some, the market value may be settled daily through margin calls. Other over-the-counter (OTC) derivatives are designed and negotiated between the parties. Fair values are then determined by reference to similar traded instruments or using pricing models.

The initial cost of a derivative includes direct and external transaction costs but not internal allocations of cost. Fair values exclude transaction costs. Therefore, when a derivative is marked-to-market through the income statement, transaction costs will be recognized as expenses immediately on initial recognition when the instrument is first measured to fair value.

Under IAS 39, changes in the fair value of derivative instruments are recognized in the income statement as they arise, unless they satisfy the criteria for hedge accounting. There are two other exceptions to the requirements:

- a derivative whose underlying is an unquoted equity instrument and whose fair value cannot be measured reliably is carried at cost until settlement
- Similarly, any other derivative whose fair value cannot be measured reliably is carried at cost or amortized cost

However, these exceptions are intended to be rare as fair values are expected to be estimated market values for similar instruments, or models where direct market values cannot be obtained.

Often, for convenience securities markets establish market rules or conventions under which a transaction is agreed on a 'trade date' and settled several days later (the 'settlement date'). The US terminology 'regular way trade' is used in the standard to describe these conventions. The standard allows initial recognition either at the trade date or at the settlement date. In most cases, it requires changes in fair value between trade date and settlement date to be recognized.

4.3 The 'Embedded Derivatives' Issue

IAS 39 aims to ensure that the new requirements for marking derivatives to market are not avoided by 'embedding' a derivative in a host contract that is accounted for differently, either at amortized cost or revalued through equity. The principle is that an embedded derivative should be split from the host contract and accounted for separately if its economics are not clearly and closely related to those of the host contract.

Case 4.1 Debt Security with an Embedded Derivative

A company might invest in a low coupon corporate bond that is exchangeable for shares in another listed company. The bond is considered to be a debt security with an embedded option to purchase equity shares at a fixed price. Before IAS 39, the instrument would have commonly been accounted for as a single investment, carried at amortized cost. On exchange, the equity shares would be recorded at the carrying amount of the bond. Depending on the policy for equity securities, a gain or loss may have been recognized immediately after exchange.

Under IAS 39, the amount paid for the bond is split between the payment for the fair value of the debt security and the payment for the equity conversion option. If the bond is held-to-maturity it will be measured at amortized cost. The discount arising from splitting out the equity derivative will increase interest income over the life of the bond to market rates. The equity conversion option is marked-to-market through the income statement. If the share price rises, gains will be recognized over the period before exchange with no gain or loss arising on the exchange.

The standards will require many common contracts with embedded derivatives to be separated, including:

- investments in convertible and exchangeable bonds
- exchangeable/convertible bonds issued
- put options embedded in the equity instruments held

- options to extend the maturity date of fixed rate debt (except when interest rates are re-set to market rates)
- any debt security or lease with interest or principal amounts linked to commodity or equity prices
- a call or put option on debt that is issued at a significant discount

If an embedded derivative is separated, the host contract is accounted for under IAS 39 as if it is a financial instrument or in accordance with other appropriate IFRS if it is not a financial instrument. This is intended to achieve consistent treatment of transactions of similar substance, whatever the form, and to prevent entities from circumventing the requirement to measure derivatives at their fair value in the balance sheet. If the combined instrument is carried at fair value with changes in fair value recognized in the income statement, separate accounting is not necessary, nor is it permitted.

A large number of embedded derivatives will remain with the host contract and will not be separated. These are the derivatives with characteristics that are clearly and closely related to those of the host contract. Common examples of embedded derivatives that will not need to be separated are:

- early settlement (pre-payment) options in debt instruments where early settlement would not result in a significant gain or loss
- interest rate swaps embedded in a debt instrument (floating-rate debt is not treated as fixed rate debt with a separate derivative swap, and vice versa)
- an interest rate floor or cap embedded in a debt instrument (where the option is out of the money at inception)

4.3.1 Decision Tree for an Embedded Derivative

Determining whether an embedded derivative should be accounted for separately can be a complex process. The process of reviewing a range of contracts to identify those that might contain embedded derivatives is an important and time-consuming aspect of IAS 39.

An embedded derivative should be split from the host contract and accounted for separately if:

- its economics are not closely related to those of the host contract

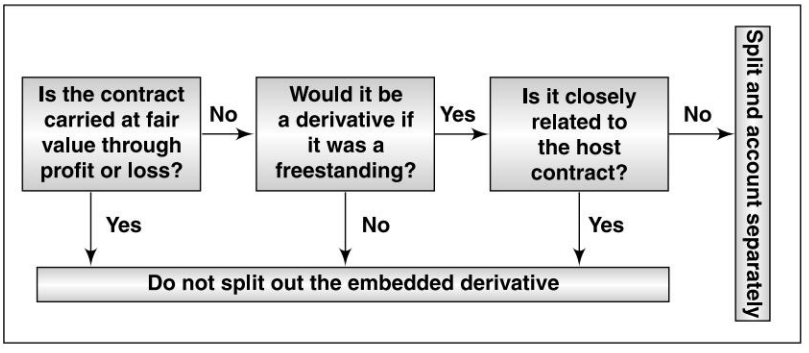


Fig. 4.1 Decision Tree for Embedded Derivatives

- a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative
- the entire contract is not carried at fair value through profit or loss

4.3.2 Contracts for Goods and Services in Foreign Currency

One area where IAS 39 may have a significant impact is on sales and purchase contracts that are denominated in a foreign currency that is not the reporting currency of either party to the contract.

Case 4.2 An Embedded Derivative in a Goods and Services Contract

A Spanish company sells regularly to customers in Asia and has a price list denominated in US dollars as well as Euros. It agrees a supply contract with an Indian customer with payment specified in US dollars. It might agree to do this if for example, the Indian company has US dollar revenues or simply prefers an exposure in US dollars rather than in Euros.

IAS 39 requires the forward contract embedded in the sales agreement to be separated from the host contract and accounted for as a derivative by both the Spanish and the Indian companies. This is because the product is not routinely priced in US dollars in international commerce and the contract is not in the functional currency of either company.

To avoid income statement volatility, either company could hedge this dollar exposure using another derivative otherwise changes in exchange rates will cause a direct impact on the income statement. Before IAS 39, the general practice would have been simply to recognize revenue (for the Spanish company) at the spot US dollar rate as each sale is made. It may or may not have hedged the US dollar revenue stream. The exchange risk in the supply contract would have been largely invisible.

Under IAS 39 the exchange risk is highly visible and has a direct impact on the income statement. The company might be more inclined to hedge the exposure. The derivative embedded in the supply contract would not be separated if the sales contract were with a US customer whose functional currency is US dollars.

4.3.3 Presentation of an Embedded Derivative

An embedded derivative that meets all of the criteria needs to be accounted for separately from its host. IAS 39 does not require separate presentation of embedded derivatives in the balance sheet. However, an entity is required to disclose separately its financial instruments that are carried at cost and those that are carried at fair value. Therefore, at a minimum, embedded derivatives that are not presented separately in the balance sheet should be disclosed.

If an embedded derivative cannot be measured reliably although the characteristics are such that separation would be required, the entire combined contract (host and embedded derivative) is to be treated as a financial instrument held-for-trading.

If an embedded derivative is not required to be separated, IAS 39 does not permit an entity to separate the hybrid instrument. In other words, separation is not optional.

Table 4.1 Host Contracts and Embedded Derivative Components

Type of host contract	Type of embedded derivative component	Features closely related (no separation)	Features not closely related (separation required)
Instrument	Instrument		
Debt	Equity-linked interest or principal payments	Not closely related	When interest and principal payments are dependent on equity prices (indexed)
	Commodity-linked or other non-financial indexed interest or principal payments	Not closely related	When interest and principal payments are dependent on commodity prices or other non-financial assets (indexed)
	Equity conversion feature	Not closely related	When debt instruments may be converted to equity shares of the issuer or another entity[1]
	Option or automatic provision to extend maturity	When the option to extend the maturity is made at prevailing market terms at the time of the extension	When the option or automatic provision to extend the maturity is on terms which differ from market terms at the time of extension

(*Contd.*)

(*Contd.*)

Type of host contract	Type of embedded derivative component	Features closely related (no separation)	Features not closely related (separation required)
Instrument	Instrument		
	Call or put option to repay before final maturity	When exercisable at the amortized amount of debt or when the exercise price of the option does not result in a significant gain or loss	When exercisable for other than the amortized amount of debt or when the exercise price of the option results in a significant gain or loss
	Equity kicker	Not closely related	When subordinated loan entitles the grantor of the loan to receive shares of the borrowing entity for free or at a very low price
	Interest caps and floors	When the embedded cap or floor is at or out of the money at the time of issue	When the embedded cap is below the market rate of interest or the floor is above the market rate of interest at the time of issue

(*Contd.*)

(*Contd.*)

Type of host contract	Type of embedded derivative component	Features closely related (no separation)	Features not closely related (separation required)
Instrument	Instrument		
Equity (held by the entity)	Equity call and put options	Not closely related	Always separated when held by an entity
Commercial contracts (purchase, sale, etc.)	Combination of call and put option, resulting in a price range (a collar)	When the purchased call and the written put are at or out of the money; i.e. the exercise price of the call is at or above the market rates and of the put is at or below the market rates at the time the contract is entered into	When the purchased call and written put are in the money at the time the contract is entered into
	Foreign currency component	When the commercial contract involves payment for goods and services denominated in a foreign currency: ■ that is the functional currency in which any substantial party to that contract operates (measurement currency); or	When the commercial contract involves payment for goods and services denominated in a currency that is not: ■ the functional currency in which any substantial party to that contract operates (measurement currency); and

(*Contd.*)

(*Contd.*)

Type of host contract	Type of embedded derivative component	Features closely related (no separation)	Features not closely related (separation required)
Instrument	Instrument		
		■ that is the currency in which the price of the related goods or service that is acquired or delivered is routinely denominated in the international commerce worldwide[22]	■ the currency in which the price of the related goods or service that is acquired or delivered is routinely denominated in the international commerce worldwide[22]
	Price clauses related to indices	When commercial contracts are based on prices or indices that are closely related to the contract	When commercial contracts are based on prices or indices that are not related to the contract

Notes:

1. Interest rates of a debt instrument and the changes in fair value of an equity instrument are not closely related and therefore, the conversion option must be accounted for separately.
2. 'Routinely denominated' is very narrowly defined. It is only a currency that is used for similar transactions all around the world, not just in one local area.

Chapter 5

Classification

5.1 Synopsis

IAS 39 establishes specific categories into which all financial assets and liabilities must be classified. The classification of financial instruments dictates how these assets and liabilities are subsequently measured in the financial statements of an entity. There are four categories of financial assets and two categories of financial liabilities that are described in this chapter.

5.2 Financial Assets

Financial Assets—Four Categories	
Financial assets at fair value through profit or loss	Loans and receivables
Held-to-maturity	Available-for-sale

5.2.1 Financial Assets at Fair Value Through Profit or Loss

This category has two sub-categories: financial assets held-for-trading and those designated as at fair value through profit or loss upon initial recognition.

IAS 39 defines financial asset held-for-trading as follows.

"A financial asset held-for-trading is the one that is:

- acquired principally for the purpose of selling it in the near term
- part of a portfolio for which there is an evidence of a recent pattern of short-term profit-taking
- a derivative unless it is designated as an effective hedging instrument".

The second sub-category includes any financial asset that an entity has decided to designate to the category on initial recognition. There are no restrictions on this voluntary designation but it is irrevocable. The asset cannot be moved to another category during its life.

5.2.2 Loans and Receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They typically arise when an entity provides money, goods or services directly to the debtor with no intention of trading the receivable. However, a loan acquired as a participation in a loan from another lender is also included in this category, as are loans purchased by the entity that would otherwise meet the definition. Other loans and receivables acquired are classified and accounted for as held-to-maturity, trading or available-for-sale. If the holder does not substantially recover the initial investment from a financial asset, other than as a result of credit deterioration, it cannot classify it as a loan or receivable.

5.2.3 Held-to-Maturity

Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturity (e.g. debt securities and redeemable preference shares) that an entity has the positive intent and ability to hold-to-maturity. A financial asset whose maturity is fixed but payments are not determinable does not qualify as held-to-maturity. This category also excludes originated loans. Equity securities cannot be classified as held-to-maturity because they do not have a fixed maturity date. The intent and ability must be assessed not only when the assets are initially acquired but also at each subsequent balance sheet date.

Case 5.1 Held-to-Maturity Classification

Planet Bank wants to categorize a bond issued by a gems and jewellery company as held-to-maturity. The interest on the bond is indexed to the price of gold. Can Planet Bank categorize this bond as held-to-maturity?

The fact that the return is dependent on the price of gold means that this bond includes an embedded derivative that is not closely related to the host contract. The embedded derivative and host contract should be separated, resulting in an embedded commodity contract to be measured at fair value and a host debt instrument. If Planet Bank has the intent and ability to hold the host to maturity, it may categorize the bond as held-to-maturity

5.2.4 Available-for-Sale

All financial assets that are not classified in any of the above category are classified as available-for-sale. The available-for-sale category includes all equity securities other than those classified as at fair value through income. An entity also has the right to designate any asset other than a trading one, to this category at inception. This is essentially a residual category for all the financial assets that do not fit the criteria of the other categories.

5.3 Financial Liabilities

Financial Liabilities—Two Categories	
Financial liabilities at fair value through profit or loss	Other financial liabilities

5.3.1 Financial Liabilities at Fair Value through Profit or Loss

The category of financial liabilities at fair value through profit or loss also has two sub-categories: liabilities held-for-trading and those designated at fair value at inception.

Financial liabilities held-for-trading include:

- derivative liabilities that are not accounted for as hedging instruments
- obligations to deliver securities or other financial assets borrowed by a short seller
- financial liabilities that are incurred with the intention to re-purchase them in the near term
- financial liabilities that form part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking

Like financial assets, an entity has a right to designate any financial liability at fair value on initial recognition. There are no restrictions on this right, but it is irrevocable. The liability cannot subsequently be transferred to another category.

5.3.1.1 The Fair Value Option

Initially, under IAS 39 an entity could choose irrevocably on initial recognition any financial instruments to be measured at fair value through profit or loss. The purpose of the option was to simplify the application of the standard and to address situations where the standard's mixed measurement model could result in an entity reporting volatility on positions that are evenly matched.

The European Commission did not endorse the IASB version of IAS 39 and 'carved out' the use of a full fair value option wherein the free choice to designate any financial liability as fair value through profit or loss was removed. Moreover the full fair value option is contrary to Article 42a of the EU Fourth Company Law Directive.

Since there was inconsistency between the IASB IAS 39 and IAS 39 as adopted by the EU, a compromise was reached by an amendment in IAS 39 to limit inappropriate use of the fair value option, while preserving its key benefits. Under the amended standard a financial asset or liability may only be designated as fair value through profit and loss (FVTPL) where:

(a) the designation eliminates or significantly reduces a measurement or recognition inconsistency (accounting mismatch)—the

amendment permits an entity to designate some of a number of similar financial assets or financial liabilities rather than all of them at fair value through profit or loss when this achieves a significant reduction of the accounting mismatch

(b) a group of financial assets or liabilities or both is managed and its performance is evaluated on a fair value basis—only an entire financial instrument can be designated at fair value and not a component or proportion of such financial instrument

(c) an instrument contains an embedded derivative that meets certain conditions, particularly where the embedded derivative modifies significantly the cash flows of the instrument

The above are in addition to financial instruments that are classified as held-for-trading.

The amendment to IAS 39 provides guidance in a number of areas, including the level of documentation of the entity's strategy that is required to meet the criteria of the amended standard so that it can avail of the fair value option.

5.3.2 Other Financial Liabilities

Other financial liabilities constitute the residual category similar to the available-for-sale category of financial assets. All liabilities and derivatives other than trading liabilities and derivatives that are hedging instruments automatically fall into this category. Common examples are an entity's trade payables, borrowings and customer deposit accounts.

Chapter 6

Initial Recognition and Measurement

6.1 Synopsis

IAS 39 sets out criteria that must be met for the initial recognition of a financial asset or liability and the amount at which such a financial asset or liability is initially measured.

An entity must consider both the amount to be recognized as well as the timing of recognition.

6.2 Recognition

6.2.1 When to Recognize

Under IAS 39 an entity should recognize a financial asset or liability on its balance sheet when, and only when, it becomes a party to the contractual provisions of the instrument.

Situations where an entity has become a party to contractual provisions include committing to a purchase of securities or committing to write a derivative option. In contrast, planned but not committed future transactions, no matter how likely they may be, are not financial assets or liabilities as they do not represent situations where the entity becomes a

party to a contract requiring future receipt or delivery of assets. For example, an entity's estimated but uncommitted sales do not qualify as financial assets or liabilities.

6.2.2 Trade Date Versus Settlement Date Accounting

The *trade date* is the date an entity enters into a contract for the purchase or sale of an asset. The *settlement date* is the date that the financial instrument is delivered to or transferred from the entity.

The recognition principle in IAS 39 would result in all transactions that occur in regulated markets to be accounted for on the trade date. However, the standard recognizes that the practice by many financial institutions and corporates is to use settlement date accounting, and that it would be cumbersome to account for such transactions as derivatives between the trade and settlement date.

There are no specific requirements about trade date and settlement date accounting in respect of financial liabilities and therefore, the general recognition and de-recognition requirements apply. Under trade date accounting, the asset to be received and related obligation to pay for it are recognized on the date the contract is entered into. If settlement date accounting is chosen, the asset is recognized on the actual date of settlement, i.e. the date that the instruments are exchanged. In the case of a purchase under settlement date accounting, changes in the fair value of the financial instrument between the date of trade and settlement should be recognized if the financial instrument is carried at fair value. In the case of a sale under settlement date accounting the opposite occurs: changes in the fair value after the trade date are not taken into account, as there is a set sale price agreed upon at the trade date, making subsequent changes in fair value irrelevant from the seller's perspective.

6.2.2.1 'Regular Way' Contracts

A regular way contract may be a purchase or a sale that requires delivery of assets within a period of time generally recognized to be the market convention or established by regulation in the marketplace in which the transaction actually takes place. Because of the short duration between the trade date and the settlement date in these types of regulated market situations, such regular way contracts are not recognized as derivative contracts under IAS 39. This exception is a practical approach taken in

IAS 39 to prevent the recognition of derivatives in many situations, and for very short periods where the constraints in the marketplace prevent immediate settlement at the trade or commitment date.

In order for a financial asset purchase to be regular way, it is not required that an organized market exists (e.g. a formal stock exchange, over-the-counter market, etc.). Rather, the term 'marketplace' means the environment in which the financial asset is customarily traded. For example, a commitment for a standard three-day settlement (assumed to be the norm for a particular marketplace) of a security purchase transaction would not be treated as a derivative as this is a regular way transaction. However, a commitment for a three-month settlement (assuming that this is not the norm in the marketplace of these instruments) for the same security transaction would meet the definition of a derivative because it is not considered to be a regular way transaction. The regular way exception requires that the transaction will be fulfilled through actual delivery of the financial instrument. Therefore, if a contract allows for or requires net cash settlement it does not qualify as a regular way contract.

When accounting for regular way purchases and sales of a financial asset, an entity may choose either trade date or settlement date accounting. The approach should be applied consistently for both purchases and sales of the different categories of financial assets.

Case 6.1 Purchase of a Bond: Trade Date v/s Settlement Date

On 28 June 2006, Saturn Ltd. agrees to purchase a bond for settlement on 1 July 2006. The purchase price of the bond is 10.00 million. On 30 June 2006, the fair value of the bond is 10.10 million. On 1 July, the bond purchase is settled for 10.0 million and the fair value remains as 10.10 million.

The balance sheet impact is shown for both the settlement date approach and the trade date approach. The example illustrates initial measurement of the bond purchase under two scenarios:

(1) a bond subsequently carried at fair value

(2) a bond subsequently carried at amortized cost

	Settlement date accounting		Trade date accounting	
	Fair value	Amortized cost	Fair value	Amortized cost
	(amount in millions)		(amount in millions)	
28, June 2006				
Financial asset—Bond	—	—	10.00	10.00
Financial liability—Payable	—	—	(10.00)	(10.00)
30 June 2006				
Financial asset—Bond	—	—	10.10	10.00
Financial liability—Payable	—	—	(10.00)	(10.00)
Financial asset— (revaluation gain)	0.10	—	—	—
Equity/Retained earnings (Depending on classification of bond)	(0.10)	—	(0.10)	—
1 July 2006				
Financial asset— (revaluation gain)	—	—	—	—
Financial asset—Bond	10.10	10.00	10.10	10.00
Cash paid	(10.00)	(10.00)	(10.00)	(10.00)
Equity/Retained earnings (Depending on classification of bond)	(0.10)	—	(0.10)	—

As seen from the example, the effect on the income statement and on the equity is the same under the settlement date and trade date accounting for purchases. However, the use of trade date accounting versus settlement date accounting could have significant temporary impact on the balance sheet of an entity.

Case 6.2 Sale of a Bond: Trade Date v/s Settlement Date

On 24 January 2006, Saturn Ltd. agrees to sell a 10.00 million bond for 9.6 million, its fair value at that date, with a settlement date of 27 January 2006. On 26 January 2006, the bond is worth 9.5 million. On 27 January

2006, the bond is settled at a price of 9.6 million and the fair value of the bond is still 9.5 million.

The balance sheet impact under the two measurement scenarios are shown as follows:

	Settlement date accounting		Trade date accounting	
	Fair value	Amortized cost	Fair value	Amortized cost
	(amount in millions)		(amount in millions)	
24 January 2006				
Financial asset—Bond	9.60	10.00	—	—
Financial asset—Receivable	—	—	9.60	9.60
Retained earnings[1]	—	—	0.40	0.40
Equity [2]	0.40	—	—	—
26 January 2006				
Financial asset—Bond	9.60	10.00	—	—
Financial asset—Receivable	—	—	9.60	9.60
Retained earnings[1]	—	—	0.40	0.40
Equity [2]	0.40	—	—	—
27 January 2006				
Cash	9.60	9.60	9.60	9.60
Financial asset—Bond	—	—	—	—
Financial asset—Receivable	—	—	—	—
Retained earnings [3]	0.40	0.40	0.40	0.40

Notes:

1. For trade date accounting the loss is recognized in the income statement (i.e. retained earnings).
2. For settlement date accounting the revaluation adjustment is recognized in equity until actual settlement assuming fair value changes on this instrument are recognized in equity.
3. For both trade date and settlement date accounting the effect is ultimately the same. (i.e. the loss is reflected in the income statement).

Despite the change in fair value of the bond between the trade date and settlement date, Saturn Ltd. does not record the additional 0.10 million loss as it will receive 9.60 million on the settlement date from the purchaser.

As can be seen from this, when accounting for sales, the effect on equity, the presentation of the transaction in the income statement and in the balance sheet may be different under the trade date versus settlement date accounting.

6.3 Measurement

6.3.1 Initial Measurement

At initial measurement, a financial asset or financial liability is recognized at its fair value (generally its costs i.e. consideration given or received) plus, in case of a financial asset or a financial liability not classified at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability. The consideration given or received is normally the transaction price or the market price. It can also be the fair value of financial instruments (other than cash) given or received in exchange for the financial instrument to be recognized. If the transaction is not based on market terms, or if a market price cannot be readily determined, then an estimate of future cash payments or receipts, discounted by the current market interest rate for a similar financial instrument, should be used to approximate the fair value.

If a bank makes a low interest or interest-free loan to a customer, the amount given by the bank (which recognizes an asset) and the amount received by the customer (which recognizes a liability) is often interpreted to be the cash transferred. In such cases, the initial carrying amount of the loan is not the amount lent, but rather the fair value of the consideration given to obtain the right to payment in the future. A low interest or interest-free loan discounted at a market rate of interest results in a present value that is less than the amount lent. The difference is not a financial asset. However, if this difference qualifies for recognition under another applicable IFRS (e.g. a recognizable intangible benefit) then it is recognized as an asset. If the difference does not qualify for recognition, it must be expensed.

Case 6.3 Low Interest Loan

Planet Bank grants a 2-year loan of Rs. 1,000,000 to an important new customer. The interest rate on the loan is 7%, while the current market

lending rates for similar loans to customers with a similar credit risk profile is 10%. Planet Bank believes that the future business to be generated with this new customer will lead to a profitable lending relationship. On initial recognition Planet Bank should recognize the carrying amount of the loan as the fair value of the payments that it will receive from the customer. Discounting the interest and principal repayments using the market rate of 10%, Planet Bank will recognize a loan of Rs. 946,198. The difference of Rs. 53,802 is expensed immediately as the expectation about future lending relationships does not qualify for recognition as an intangible asset.

6.3.2 Transaction Costs

Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or financial liability.

Transaction costs that are included in the initial measurement are those that are paid to external parties, such as fees and commissions paid to agents, advisers, brokers and dealers, as well as levies paid to regulatory agencies and securities exchanges, and transfer taxes and duties. Transaction costs may include internal costs, but both internal and external costs must be incremental. Transaction costs do not include internal financing or holding and administrative costs; nor do they include debt premiums or discounts.

The treatment of transaction costs after initial recognition depends on the subsequent measurement of the instrument of which they are a part, as follows:

- for financial assets and liabilities that are carried at amortized cost, the transaction costs are amortized to the income statement as part of the recognition of the effective interest
- for financial assets classified as available-for-sale, the transaction costs are recognized in equity.
- for financial assets and liabilities that are carried at fair value with changes in fair value recognized in the income statement, the transaction costs are expensed.

Transaction costs expected to be incurred at a subsequent date related to the transfer or sale of a financial instrument, should not be considered in the subsequent measurement of the financial instrument. Selling/ Transfer costs are only included in the income statement when a financial instrument is de-recognized.

6.3.2.1 Transaction Costs of an Equity Transaction

When the entity issues shares or buys back its own shares, it incurs various costs such as registration fees, printing charges, professional fees paid to lawyers, accountants, merchant bankers, etc. Only costs which are directly attributable to the equity transaction and are incremental will be deducted from equity (net of income tax benefits). Incremental costs are those incurring of those costs that could not have been avoided when the entity issues shares or buys back its own equity. Any costs which relate to an equity transaction that is abandoned is treated as an expense.

Chapter 7

Subsequent Measurement, Valuation and Impairment

7.1 Synopsis

This chapter begins by considering the subsequent measurement of financial liabilities. There are only two categories of financial liabilities ('trading' and 'other') and the rules are less complex than those for financial assets. It then moves on to consider the four categories of financial assets and how they should be measured. Other issues related to the measurement of assets that are dealt with at the end of this chapter are as follows:

- When is it possible to conclude that fair value cannot be measured reliably?
- What happens when a reliable fair value ceases to be available?
- Restrictions on transfers of assets and the 'tainting' rules for held-to-maturity assets
- How should financial assets be tested for impairment?

7.2 Subsequent Measurement—Financial Liabilities

Under IAS 39, all derivatives that are liabilities are re-measured to fair

value. Derivatives are liabilities when they have negative fair values, i.e. when settlement would require the company to pay the fair value to the other party. Trading liabilities are also measured at fair value. Trading liabilities include short positions in securities (for example securities sold where the underlying security has been borrowed and is not recognized). The fact that a liability is incurred and used to fund trading activities does not mean that the liability is classified as held-for-trading.

All other (non-trading) financial liabilities are carried at amortized cost.

7.2.1 Accounting for the Fair Value Adjustment on Financial Liabilities

For trading liabilities and other derivative liabilities that are re-measured to fair value, the changes in fair value are included in the net profit or loss for the period.

The above accounting is applied where the instrument is not part of a hedge transaction. Specific rules on income recognition apply in situations where hedge accounting is applied.

7.3 Subsequent Measurement—Financial Assets

There are four categories of financial assets as defined in IAS 39. They are:

1. Financial assets at fair value through profit or loss
2. Loans and receivables
3. Held-to-maturity
4. Available-for-sale

This classification is important because it determines the subsequent measurement of the asset. The rules for measuring financial assets are similar to the equivalent guidance under US GAAP.

Table 7.1 gives an overview.

Table 7.1 Principles Underlying Subsequent Measurement of Financial Assets

Financial assets	Measurement	Changes in the carrying amount	Impairment test (if objective evidence)
Financial assets at fair value through profit or loss	Fair value	Income statement	No
Loans and receivables	Amortized cost	Income statement	Yes
Held-to-maturity	Amortized cost	Income statement	Yes
Available for sale	Fair value	Equity	Yes

7.4 Valuation Issues

7.4.1 The Amortized Cost Calculation

The carrying amount of a financial instrument is computed as:

- the amount to be paid/repaid at maturity (usually the principal amount or face value); plus
- any unamortized original premium, net of transaction costs; or less
- any unamortized original discount including transaction costs; less
- principal repayments

The amortization is calculated on a yield-to-maturity basis. This method calculates the discount rate or rate of interest that is necessary to discount the stream of principal and interest cash flows excluding any impact of credit losses, to the initial net proceeds. That rate is then applied to the carrying amount at each reporting date to determine interest income/expense for the period. In this way, the contractual interest expense in each period is adjusted to amortize any premium, discount or transaction costs over the life of the financial instrument. It is important to note that the effective interest rate method does not take into account any future credit losses anticipated on that instrument.

Case 7.1 Amortized Cost Using the Effective Interest or Yield-to-Maturity Method

A bond with a face value of Rs 100,000 and bearing interest at 8% (payable annually) is issued by an enterprise for Rs. 94,418. Transaction costs on the issue (bond origination fee, legal fees, printing costs) are Rs. 2,000. The maturity date is five years from date of issue.

The effective yield is the interest rate needed to discount all the cash flows on the bond (principal and interest) to the present value of Rs. 92,418. In this case, the effective yield is 10% (using a DCF calculation which is not shown here), and therefore the enterprise recognizes a finance cost at 10% on the carrying amount in each period.

The journal entries are as follows:

1 January 2006	Debit	Credit
Cash/Bank (net of transaction costs)	92,418	
Unamortized Bond Discount (Balance Sheet)	7,582	
To Debt Instrument Payable—Bond		100,000
To record the issuance of bond. The discount is shown as a direct deduction from the nominal amount. The net Rs. 92,418 is shown on the balance sheet (breakdown is shown in the notes)		
31 December 2006		
Interest expense (92,418 @ 10%)	9,242	
Cash Bank (interest paid)		8,000
To Bond Discount amortized		1,242
To recognize the effective interest expense at 10% on the carrying amount of the liability, (interest of 8% payable at face value of the bond and the amortization of the bond discount). The bond is then stated on the balance sheet at Rs.93,660		
31 December 2007		
Interest expense (93,660 @ 10%)	9,366	
Cash Bank (interest paid)		8,000
To Bond Discount amortized		1,366
To recognize the interest expense at 10% on the carrying amount of the liability		

At maturity, the discount will be reduced to zero, leaving the carrying amount of the bond at Rs 100,000. The interest expense is not constant, but increases in each period as the net carrying amount of the bond increases. In practice, the finance cost would be calculated daily, monthly or quarterly, giving a more precise allocation of interest expense depending on materiality.

This can be compared to the straight-line method which would show a constant amount of interest expense of Rs 9,516 in each period (Rs 8,000 plus amortization of the initial discount over five years). The straight-line method is not permitted under IAS 39.

Figure 7.1 depicts the different income statement expenses that would result under the two methods.

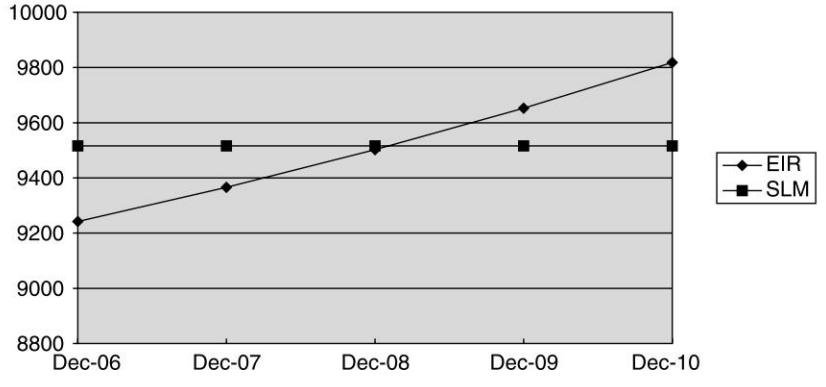


Fig. 7.1 Effective Interest Rate versus Straight-line Method

7.4.2 Fair Value

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. Fair value does not take into consideration transaction costs expected to be incurred on transfer or disposal of a financial instrument.

Underlying the concept of fair value is the presumption that the entity is a going concern and does not have an intention or a need to liquidate instruments, or undertake a transaction on adverse terms. Therefore, fair value is normally not an amount that an entity would receive or pay in a forced transaction, involuntary liquidation or distress sale.

The fair value of a financial instrument should be reliably measurable. In looking, for a reliable measure of fair value, IAS 39 provides a hierarchy to be used in determining an instrument's fair value.

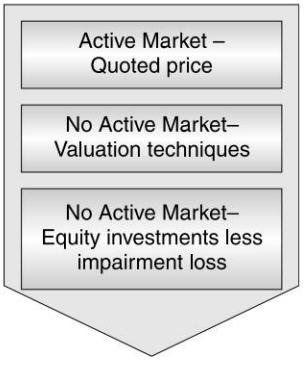


Fig. 7.2 Fair Value Hierarchy

7.4.2.1 Active Market—Quoted Market Price

The existence of published price quotations in an active market is the best evidence of fair value and they must be used to measure the financial instrument. The phrase "quoted in an active market" means that quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency, and that those prices represent actual and regularly occurring market transactions on an arm's length basis. The price can be taken from the most advantageous market readily available to the entity even if that was not the market in which the transaction actually occurred. The quoted market price cannot be adjusted for blockage or liquidity factors.

The standard uses the terms 'bid price' and 'ask price' (sometimes referred to as 'current offer price') in the context of quoted market prices. The term 'bid-ask spread' includes only transaction costs. Any other adjustments to arrive at fair value (e.g. credit risk) are not included in 'bid-ask spread'.

7.4.2.2 No Active Market—Valuation Techniques

If the market for a financial instrument is not active, fair value is established by using a valuation technique. Valuation techniques that are well established in financial markets include recent market transactions, reference to a transaction that is substantially the same, discounted cash

flows and option pricing models. An acceptable valuation technique incorporates all factors that market participants would consider in setting a price and should be consistent with accepted economic methodologies for pricing financial instruments. Normally, the amount paid or received for a financial instrument is the best estimate of fair value at inception. However, where all data inputs to a valuation model are obtained from observable market transactions, the resulting calculation of fair value can be used for initial recognition.

7.4.2.3 No Active Market—Equity Instruments

Normally it is possible to estimate the fair value of an equity instrument that an entity has acquired from an outside party. However, if the range of reasonable fair value estimates is significant and no reliable estimate can be made, an entity is permitted to measure the equity instrument at cost less impairment as a last resort. This is the only exception noted by IAS 39. A similar dispensation applies to derivative financial instruments that can only be settled by physical delivery of such unquoted equity instruments.

It will be clear from the above that, in some circumstances it might be possible to recognize a gain on initial recognition of a financial instrument. However, the circumstances in which this will be permitted are very tightly controlled.

7.5 Re-Classification of Financial Assets

7.5.1 Transfers between Categories

An entity may wish or need to transfer a financial asset from one category to another. However, for certain categories transfers should be very rare or may not be allowed at all without tainting implications. Such limitations are imposed due to the concept in IAS 39 that asset classification should generally be clear as of the moment the asset is acquired or originated. Table 7.2 lists all possible transfers between categories including an indication of whether such a transfer is permitted.

Table 7.2 Rules for Transfers between Financial Assets Categories

Transfer to / Transfer from	Trading	Loans and receivables	Held-to-maturity	Available-for-sale
Trading	Not applicable	Not permitted	Not permitted	Not permitted
Loans and receivables	If pattern of short-term profit making	Not applicable	Not applicable	Not applicable
Held-to-maturity	Results in tainting	Not applicable	Not applicable	Results in tainting
Available-for-sale	If pattern of short-term profit making	Not applicable	In case of change in intent and if all criteria met	Not applicable

7.5.1.1 From Trading

IAS 39 is clear in regard to transfers from the trading portfolio—such transfers are not allowed. The rationale is that the designation of a financial asset as held-for-trading is based on the objective for initially acquiring it (which is for trading purposes).

7.5.1.2 From Loans and Receivables

Loans and receivables should be classified as trading at the origination date if the intent is to sell such loans immediately, or in the short-term, or if they are a part of a portfolio of loans for which there is an actual pattern of profit-making. A transfer from loans and receivables portfolio to the trading portfolio at a later stage may happen only if there is evidence of a recent pattern of a short-term profit-taking that justifies such a re-classification. An example is when a responsibility for a portfolio of loans is transferred from the banking division to the trading division and when the objective for holding the loans has clearly changed, and not just because the entity has decided to sell the loans in the near future. Upon transfer to the trading portfolio, the assets are re-measured to fair value with differences between (amortized) cost and fair value recognized in the income statement.

Re-classifications and sales of loans and receivables are possible without any of the tainting issues. However, such transfers should not be common.

7.5.1.3 From Held-to-Maturity

Transfers from the held-to-maturity category should be rare. If the category is tainted, all the assets in this category are re-measured at fair value and re-classified either to the available-for-sale or trading portfolios. Differences between the amortized cost and fair value at the date of transfer are included either in equity or in the income statement depending upon the new classification of the assets.

Entities should not re-classify to trading a tainted portfolio of held-to-maturity investments if after the tainting period (i.e. two full financial years) the entity plans to reinstate the portfolio in held-to-maturity, as this objective would not be consistent with the intent of a trading portfolio. Instead the entity should re-classify the tainted portfolio to available-for-sale for the duration of the tainting period.

7.5.1.4 From Available-for-Sale

Instruments may be transferred from available-for-sale to trading. This may only be done if there is recent evidence of a pattern of short-term profit-taking that justifies such a re-classification. If such a transfer occurs, any cumulative gain or loss included as a fair value component of equity should remain there until de-recognition of the re-classified asset. The fair value at the transfer date represents the new basis for recognizing changes in fair value for the trading asset. Upon de-recognition of the asset, the cumulative gain or loss included as a component of equity at the date of the re-classification is removed and recognized in the income statement.

A decision to sell a financial asset that is not classified as held-for-trading in the near future does not make that asset a financial asset held-for-trading.

Transfers from available-for-sale to held-to-maturity can occur if there has been a change in the intent and ability of the entity. For instance, such a transfer could occur if the tainting prohibition period on a held-to-maturity asset has passed and the entity decides to re-classify assets back to that category. In case of a transfer from available-for-sale to held-to-maturity, the fair value at the date of transfer becomes the new amortized cost basis for the held-to-maturity assets.

7.6 Tainting Rules

A positive intent to hold assets to maturity is a much higher hurdle than simply having no present intention to sell. If an entity sells more than an insignificant amount of held-to-maturity securities, other than in exceptional circumstances, this casts doubt on its intent or ability to hold investments to maturity. The consequences are harsh; the entity is prohibited from using the held-to-maturity classification for any financial assets for two financial years and all its held-to-maturity investments are re-classified as available-for-sale and measured at fair value. When the prohibition ends (at the end of the second financial year following the tainting), the portfolio becomes "cleansed" and the entity is once more able to classify the securities as held-to-maturity. These are called tainting rules.

Case 7.2 Tainting of Held-to-Maturity Assets

N Co sells 1,000,000 of bonds from its held-to-maturity portfolio on 26 April 2006. The fair value of the bonds has appreciated significantly over the carrying value and management decides that N Co should realize the gains through a sale. In these circumstances, the action of selling investments from the held-to-maturity portfolio taints the entire portfolio and all remaining investments in that category must be re-classified. N Co will be prohibited from classifying any assets as held-to-maturity for two full financial years.

7.6.1 Exceptions from Tainting

7.6.1.1 Sale of Insignificant Amount of Held-to-Maturity Investments

Firstly, the tainting rules do not apply if only an insignificant amount of held-to-maturity investments are sold or re-classified. The standard does not define what an insignificant amount means. Therefore, a judgment will be required in each particular situation. Any sale or re-classification should be a one-off event. If an entity periodically sells or transfers insignificant portions this may cast a doubt on the entity's intent and ability with regard to its held-to-maturity portfolio. In cases where the sales are not isolated, the amount sold or re-classified should be assessed on a cumulative basis in assessing whether the sales are insignificant. Sales or re-classifications do not result in tainting if they occur:

- very close to maturity or call exercise date
- after substantially all of the original principal is already collected
- due to an isolated non-recurring event beyond the entity's control

7.6.1.2 Deterioration in Creditworthiness

Although IAS 39 does not provide a definition of a significant deterioration of an issuer's creditworthiness, an example of this is a significant downgrade by a credit rating agency. Given the scarceness of external credit ratings for debt for borrowers outside the United States, downgrades as reflected in an entity's proprietary internal credit rating system may support the demonstration of significant deterioration. However, the initial quality of the asset must have been such that the deterioration could not have been reasonably foreseen. A credit downgrade of a notch within a class or from one rating class to an immediately lower rating class could often be considered as being reasonably anticipated. Therefore, a sale triggered by such a downgrading would result in tainting.

7.6.1.3 Changes in Tax Laws

A significant change in tax laws, such as the elimination or the significant reduction of the tax-exempt status of an investment that affects the investment specifically, may not cast doubt on the intention or ability of the entity with respect to the held-to-maturity category.

If, for example, an entity has a captive finance company in a tax haven and due to changes in tax laws that affect the whole group, it intends to relocate its treasury activities and in that process liquidate part of the held-to-maturity portfolio in order to restore the interest rate risk position, the classification as held-to-maturity would not be violated since the entity could not have foreseen the change in tax laws.

The exemption regarding changes in tax laws is not always applicable. For example, an entity may have a history of entering into schemes for tax-related purposes and then, subsequently reversing or terminating the transaction due to changes in tax laws. In this case, it would not be acceptable to use the change in tax laws as an exemption from tainting.

A change in the applicable marginal tax rate for interest income is not sufficient justification for sale of held-to-maturity investments, since this change impacts all debt instruments held by the entity.

7.6.1.4 Major Business Combination or Disposition

Although a major business combination or the sale of a significant segment of the entity is a controllable event, it may have a consequence on the entity's interest rate risk and credit risk positions. In such situations, sales that are necessary to maintain the entity's existing risk positions and those that support proper risk management do not taint the held-to-maturity portfolio.

Although sales subsequent to business combinations and segment disposals may not taint the held-to-maturity portfolio, sales of held-to-maturity investments prior to a business combination or disposal, or in response to an unsolicited tender offer, will cast doubt on the entity's intent to hold its remaining investments until maturity.

Case 7.3 Held-to-Maturity Portfolio Acquired in a Business Combination

Bank Buy has acquired Bank Sell. The new management wants to transfer some held-to-maturity securities of Bank Sell to available-for-sale securities because the management believes that the time to maturity of certain securities is too long and the held-to-maturity portfolio after the business combination is unreasonably large.

At the date of the acquisition, Bank Buy will have to classify the securities acquired as a result of the business combination, applying corresponding rules in IAS 39 without regard to how these securities were classified by Bank Sell before the acquisition. Thus, if Bank Sell classified certain securities as held-to-maturity but Bank Buy does not have the ability and intent to hold these securities until maturity, Bank Buy should not continue to treat these securities as held-to-maturity. The tainting rules would not be relevant in this case at the group level because there is no transfer on the group balance sheet. At the level of Bank Sell (which would be relevant if Bank Sell continues to prepare separate financial statements under IFRS) the transfers from the held-to-maturity portfolio would not be considered tainting if the transfers were necessitated by the business combination as a result of which the held-to-maturity portfolio of Bank Sell had to be brought in line with the policies of Bank Buy.

However, a business combination cannot be regarded as a possibility for transferring securities from the held-to-maturity portfolio that Bank Buy had before the acquisition. For example, if as a result of the acquisition the business strategy of the group changed and Bank Buy transferred some of its existing securities out of the held-to-maturity portfolio, such transfers would trigger tainting of the whole portfolio. A change in business strategy is not a valid reason for transferring securities out of the held-to-maturity portfolio. It would call into question the intent to hold the rest of the securities until maturity and would result in tainting.

7.6.1.5 Changes in Statutory or Regulatory Requirements

Examples of changes in statutory or regulatory requirements that do not have tainting implications for the held-to-maturity portfolio are:

- changes either in the statutes or in regulations affecting the entity that modify what constitutes a permissible investment or the maximum level of certain types of investments. As a result the entity would need to sell (part of) these investments
- significant increases in capital requirements or in the risk weightings as a result of which the size of the held-to-maturity portfolio has to be decreased

The exceptions are intended to shield entities operating in regulated industries from potential tainting situations resulting from actions taken by the industry's regulator. These are actions applicable to the industry as a whole and not to a specific entity. However, sales could occur in response to an entity-specific increase in capital requirements set by the industry's regulator. In that case, it will be difficult to demonstrate that the regulator's action could not have been reasonably anticipated by the entity, unless the increase in entity-specific capital requirements represents a significant change in the regulator's policy for setting these requirements.

7.7 Impairment of Financial Assets

At each balance sheet date an entity should assess whether there is objective evidence that a financial asset or group of assets may be impaired. A financial asset is impaired if its carrying amount exceeds its estimated recoverable amount. The recoverable amount must be estimated if there is evidence that suggests that an asset is impaired. The excess of the carrying amount over the estimated recoverable amount is an impairment

loss, and is included in the income statement. Expected losses as a result of future events, no matter how likely they may be, are not recognized. Debt and equity securities can both be impaired.

7.7.1 Categories of Financial Assets that can be Impaired

All financial assets are subject to IAS 39's impairment testing rules unless they are specifically excluded from its scope, or are carried at fair value with changes recognized in the income statement. There is no need for an entity to assess trading assets for impairment, as they are measured at fair value at each balance sheet date with changes in fair value recognized in the income statement. All remaining categories of financial assets—loans and receivables, held-to-maturity and available-for-sale assets with fair value changes recorded in equity—are subject to assessment for impairment.

7.7.2 Impairment Triggers

Impairment testing is required when indicators of impairment are present. Certain factors are identified in IFRS as indicators of impairment; this is not an exhaustive list. These factors are included in Figure 7.3.

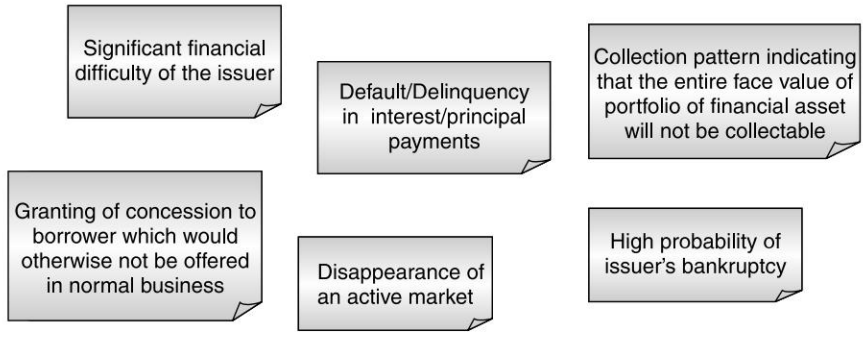


Fig. 7.3 Factors Indicating Impairment

IFRS includes a few specific impairment indicators for equity securities that are included in available-for-sale with fair value changes through equity. However, holders of an equity instrument have only a residual interest in the entity's assets and rank after all of the creditors. Thus, conceptually, an equity security is likely to impair before a loan or debt

security. An exception would be equity securities that were purchased when the investee was in similar or worse financial difficulties.

Some additional potential indicators of impairment specific to equity securities are:

(i) a prolonged period where fair value remains substantially below cost

(ii) decline in fair value disproportionate to other entities in the same industry

(iii) significant unexpected deterioration in the investee's earnings, cash flows or net assets since the date of acquisition

(iv) a reduction or cessation of dividend payments

(v) a significant reduction in the issuer's credit rating since the date of acquisition of the equity security

7.7.3 Measurement of Impairment

The measurement of impairment and the recording of the impairment charge in the income statement will depend on the classification and accounting for the financial asset.

7.7.3.1 Assets at Amortized Cost

Loans and held-to-maturity investments are carried at amortized cost. The asset's carrying value is compared to the estimated recoverable amount in order to measure any impairment and the difference, which is the impairment charge, is recorded in the income statement.

The estimated recoverable amount of a loan is the net present value of the future cash flows expected from the asset, discounted using its original effective interest rate. The discount rate for measuring the recoverable amount of variable rate loans is the current effective interest rate determined under the contract.

Use of the original effective interest rate ensures that interest rate based fair value elements are not introduced into the measurement of assets that are carried at amortized cost. Impairment of fixed-rate financial assets should not be measured based on an observable market price even if such a price is available, as this also moves the valuation to a fair value basis.

The amount and timing of expected cash flows arising from the realization of any collateral must be taken into account when determining an impaired asset's net present value.

This methodology for assessing impairment must also be applied to traditional accounts receivable and debt securities held-to-maturity.

Impairment can be measured on an individual asset basis or on a portfolio basis.

INDIVIDUAL ASSET BASIS OF MEASURING IMPAIRMENT In determining the allowance for impairment of loans and held-to-maturity investments, entities should analyse their portfolios into the following principal categories.

(i) Individually significant assets—These should be deemed to include at least those assets which, if they were individually fully impaired, would have a material impact on an expected average level of operating profit for the entity. These individually significant assets must be tested for impairment if evidence for impairment exists. Those individually significant assets for which no impairment is identified should be included in category (iii).

(ii) Other individual loans for which specific evidence of impairment exists but that are not individually significant.

(iii) All loans for which no specific evidence of impairment exists—These loans should be sub-categorized into a portfolio of assets with similar credit risk characteristics. When grouping loans into portfolios, loans should also be separated into variable rate loans and fixed rate loans, grouped according to maturity. Fixed rate loans with different maturities would have different original effective interest rates.

PORTFOLIO BASIS OF MEASURING IMPAIRMENT Measurement of impairment on a portfolio basis is applied when there is indication of impairment in a group of similar assets and impairment cannot be identified with an individual asset within the group. An asset that is deemed impaired cannot subsequently be included in any group of assets that is tested for impairment on a portfolio basis.

The portfolio of loans should be grouped in pools, based on similar credit risk characteristics. A pool of loans may be identified by virtue of belonging to a particular industry or geographical area that is considered to have a different chance of being impaired than other categories of

loans. An individually significant loan that is not impaired should be included in the assessment of impairment on a group basis, but should not be included in a pool with loans that are not individually significant. Hence, separate pool(s) should be created and tested for individually significant loans that are not impaired. Other pools of loans should therefore, consist of loans that are not individually significant and have not been identified as individually impaired. Management should determine the historical loss experience for a particular pool of loans. This should take into account only losses that have historically occurred on individually insignificant loans where no indicators of individual loan impairment were present.

The historical loss experience should be adjusted to reflect the effects of current conditions where they are different from historical conditions. These are changes in the business climate in a particular industry in which the creditor has loans outstanding. The historical loss experience may need to be adjusted to remove the effects of conditions in the historical period that do not exist currently. Impairment losses should be based on events that have already taken place or are expected to take place as a result of economic conditions that exist at the balance sheet date. Losses should be provided for delays anticipated on principal and interest payments that are not compensated by additional payments. This would not be the case for fixed-rate loans or for floating-rate loans where the credit spread has been fixed.

There is an express prohibition on general provisions against unspecific risks.

RECOGNITION OF INTEREST INCOME ON IMPAIRED ASSETS Once a financial asset has been written down to its estimated recoverable amount, the interest income is recognised based on the rate of interest that was used to discount the future cash flows for the purpose of measuring the recoverable amount.

Impairment of accrued interest receivable is recorded as bad debt expense, consistent with impairment losses on loans and receivables. Reversal of the interest income previously recognised is not appropriate.

7.7.3.2 Assets at Fair Value

The recoverable amount of a debt instrument carried at fair value is the present value of expected future cash flows, discounted at current market rates of interest for a similar asset. When establishing the discount rate, it

is important not to double count the impact of expected default. Thus, the expected future cash flows should include any expected defaults and the discount rate should be a rate for an otherwise comparable instrument.

The requirement to look at expected cash flows may mean that the value determined when assessing impairment is different from the instrument's current market value. The 'impairment value' may therefore be in excess of the current market price. However, where an entity is expecting to sell the financial assets the market price may be the best indicator of future cash flows.

The best evidence of an equity instrument's expected future cash flows is the current market price. The difficulty in determining impairment is in assessing when assets are impaired compared with when they are subject to ordinary fluctuations in fair value.

Judgement must be exercised when making such an assessment. Crucial to the evaluation of impairment is the length of time for which the fair value has been below the acquisition price, the trend of fair value changes and a comparison of the investee to other entities in the same industry or country. Determining that a financial asset has been impaired requires management to recognize the cumulative net loss that has been deferred in equity, in the income statement.

7.7.3.3 Assets not at Fair Value

Any assets that are not carried at fair value because it cannot be determined should be reviewed at the balance sheet date for impairment, if impairment indicators are present. Impairment is measured as the difference between the carrying amount and the present value of expected future cash flows discounted at the current market rate of interest for a similar financial asset. The impairment should be recorded in the income statement.

7.7.4 Subsequent Recovery of Impairment

7.7.4.1 Assets at Amortized Cost

Impairments recorded on assets carried at amortized cost may be reversed in subsequent periods if specific criteria are met. An impairment charge can be reversed if both the conditions are met:

(i) the impairment decreases (that is, the present value of the expected future cash flows increases)

(ii) the decrease can be objectively related to an observable event that occurred after the impairment was recorded

The reversal of the impairment cannot result in the financial asset being carried at a value in excess of what the amortized cost would have been at the date the impairment was reversed. The reversal is recorded in the income statement.

7.7.4.2 Assets at Fair Value

Impairments on assets carried at fair value are treated in a similar way. The impairment is reversed if the fair value or recoverable amount increases and the increase can be related to an observable event. The reversal of impairment, up to the value originally recognized, is recorded in the income statement.

7.7.4.3 Assets not at Fair Value

The impairment charge for assets that are not carried at fair value because it cannot be reliably measured can also be reversed. Reversal of the impairment is only allowed where there is a specific observable event after the impairment is recorded. Any impairment is reversed up to the amount originally recorded and recognized in the income statement. However, the ability to substantiate reversal of impairment may indicate that it is now possible to reliably measure the asset at fair value. The asset should then be carried at fair value with treatment of gains and losses (after reversal of the impairment) in accordance with the entity's one-time choice on treatment of gains and losses.

Chapter 8

De-recognition

8.1 De-recognition in Context

Many corporates as well as banks operate or take part in schemes that provide financing by selling portfolios of trade receivables, loans, etc. Often, one of the objectives of such schemes is to provide finance that is 'off-balance sheet', i.e. the assets sold are removed from the balance sheet and the funding provided is not recognized on the balance sheet. Examples include debt factoring and securitization schemes.

IAS 39 includes detailed requirements in this area, including principles for:

- complete de-recognition of financial assets
- partial de-recognition (e.g. servicing rights retained)
- de-recognition combined with recognition of a new liability (e.g. credit risk guaranteed)

The standard also covers de-recognition of financial liabilities, including the treatment of restructured loans.

8.2 De-recognition of a Financial Asset

8.2.1 Complete De-recognition of an Asset

Transfers of financial assets take many forms. A transferor may sell

financial assets receiving in exchange, cash or other assets with no continuing involvement with the assets sold. The accounting for such transfers as sales with corresponding de-recognition of the assets is well established and is unchanged under IAS 39.

Case 8.1 Complete De-recognition

Saturn Co. sells a portfolio of receivables with a carrying amount of Rs 100,000 to Pluto Co. for a fixed amount of Rs 90,000 with no recourse to Saturn Co. in the case of bad debts. Pluto Co. assumes the full risk of collection, which is reflected in the price paid. Debtors are notified of the transfer and directed to send payments to Pluto Co. Saturn Co. has lost control of the asset and Pluto Co. has assumed full risk without recourse to Saturn Co. if any of the debtors defaults. The transaction is treated as an outright sale and the asset is derecognized.

Journal entries in Saturn's books:

	Debit	Credit
Cash/Bank a/c	90,000	
Loss on sale	10,000	
To Receivables a/c		100,000
To record the sale of receivables		

8.2.2 No De-recognition of an Asset

At the other extreme is a transaction where the buyer has an unconditional option to return the assets at the original price, usually with interest. It might choose to do so, for example, if a receivable becomes doubtful. Again, the accounting is straightforward.

The transaction is treated as a financing, with both asset and liability on-balance sheet, because control of the assets is not transferred.

Case 8.2 No De-recognition

Saturn Co. sells certain receivables, due in six months with a carrying amount of Rs 100,000 to Pluto Co. for a cash payment of Rs 95,000 with

full right of recourse. Under the terms of the recourse provision, the transferor is obliged to re-acquire certain receivables at the original price plus interest, if Pluto Co. chooses to return them. Pluto Co. has an unconditional put option on the assets transferred. The seller is obliged to re-purchase the receivables transferred on terms that effectively provide the buyer with a lender's return. Consequently, the seller has not lost control of the receivables and is still exposed to the risk of default. The receivables are not removed from Saturn Co's balance sheet and the transaction should be treated as a collateralized borrowing.

In Saturn Co's books, the Rs 95,000 received is recognized as a liability. It is measured at amortized cost, with interest expense of Rs 5,000 being recognized over its six-month maturity. The receivables continue to be recognized at the lower of cost and net realizable value in the usual way. Cash received (either by the buyer or the seller, depending on the agreement) reduces the receivables balance and is used to repay the liability. If receivables are 'returned' to the seller, the cash paid is also a partial repayment of the liability. The carrying amount of the receivable returned may be impaired.

8.2.3 Partial De-recognition

Between the two extremes are transactions where the seller retains certain interests in the assets transferred. For example, a transferor may pledge financial assets as collateral or may retain servicing rights, or retain some or all of the credit risk in the assets transferred. In recent years such transfers have grown in volume, variety and complexity, frequently raising the issues of whether the assets should be considered to have been sold or as collateral for borrowings, and whether or not the transfer should be recognized.

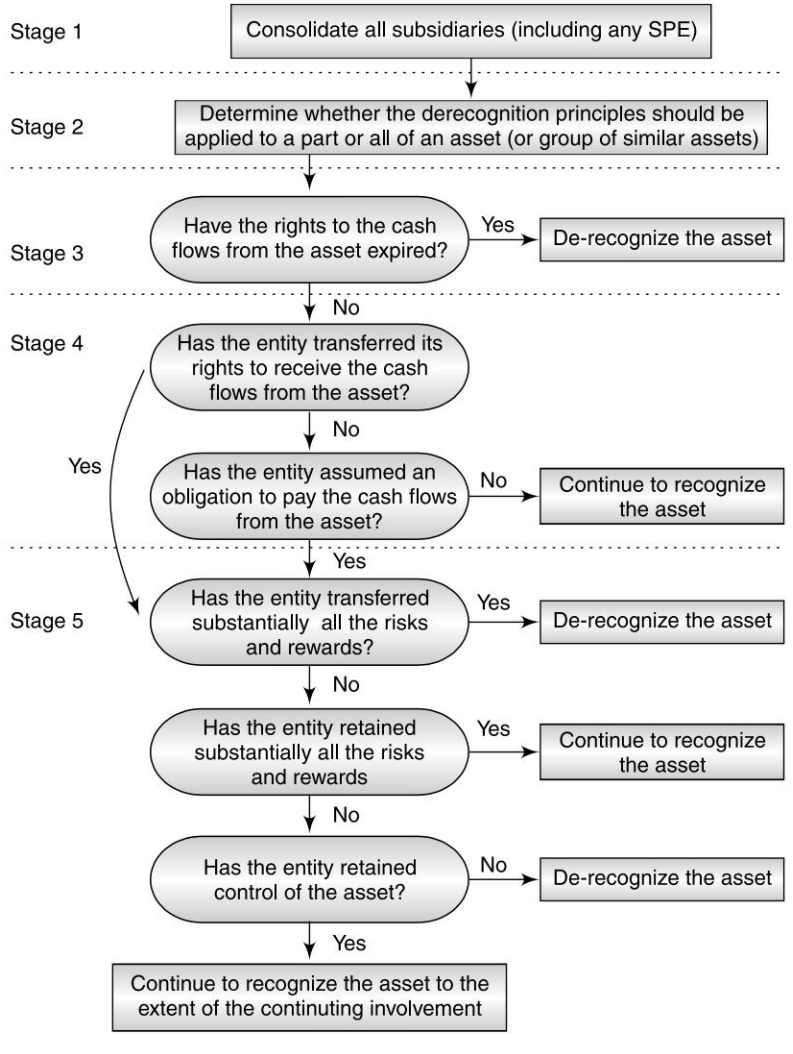
Practices in accounting for transfers of financial assets have been inconsistent, causing confusion amongst both preparers and users of financial statements. IAS 39 seeks to eliminate these inconsistencies and to reduce the confusion by establishing principles to distinguish sales from secured borrowings.

8.3 The Principles in IAS 39

The rules on de-recognition focus on whether control of the contractual rights that comprise an asset has been transferred from the seller to the buyer. Control, as defined by IAS 27: *Consolidated and Separate Financial*

Statements, is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

IAS 39 takes a 'substance over form' approach in determining whether the assumption is negated, by requiring the positions of both the seller and the buyer to be considered. To illustrate the principle of transfer of control the standard provides a flow chart to evaluate whether and to what extent a financial asset is de-recognized.



A detailed explanation of each stage of the flow chart is as follows.

STAGE 1: Consolidate all subsidiaries (including any SPE)

Many de-recognition structures use entities (e.g. trusts , partnerships, etc.) that have been specifically set up for the acquisition of the transferred assets. The transfer of assets to such an entity might qualify as a legal sale. However, if the relationship between the transferor and the transferee suggests that the transferor controls the transferee, then the transferor needs to consolidate the transferee. The de-recognition principles therefore have to be applied on a consolidated level. An entity first consolidates all subsidiaries and special purpose entities in accordance with IAS 27 and SIC-12 and then applies the de-recognition principles to the resulting group.

STAGE 2: Identify the assets (or part of assets) which should be tested for de-recognition

The tests may be applied to any of the following:

- an entire asset (e.g. an unconditional sale of a financial asset)
- a fully proportionate share of the cash flows from an asset (e.g. a sale of 25% of all principal and interest cash flows)
- specifically identified cash flows from an asset (e.g. a sale of an interest-only strip)
- a fully proportionate share of specifically identified cash flows from an asset (e.g. a sale of a 25% interest-only strip)

STAGE 3: Rights to the cash flows from the asset expired

If the contractual rights to the cash flows from a financial asset (or part of the asset) have expired or are forfeited the financial asset should be de-recognized. This is the case when a debtor discharges its obligation by paying the holder of the financial asset or when the debtor's obligations to the holder have ceased (e.g. when the rights under an option expire)

STAGE 4: Have the assets been transferred?

A transaction qualifies as a transfer if the entity transfers the contractual rights to receive the cash flows to a third party or when it retains the contractual rights but assumes a contractual obligation to pass on these cash flows to another.

Test 1: Has the entity transferred its rights to receive the cash flows from the asset?

Some transactions clearly involve the transfer of rights to another party.

For example, an entity that has sold a financial asset (e.g. a legal sale of a bond) has transferred its rights to receive the cash flows from the asset. The transfer then has to be assessed in Stage 5 to determine whether it meets the de-recognition criteria.

Test 2: Has the entity assumed an obligation to pay the cash flows from the asset?

An entity that retains its contractual rights to receive cash flows from a financial asset may still assume a contractual obligation to pass on the cash flows to one or more entities (pass through arrangements).

This situation may arise if the transferor is a special purpose entity or a trust, and issues beneficial interests in the underlying financial assets that it owns to investors whilst continuing to service those financial assets (i.e. custody of the underlying asset remains with the transferor).

Additional requirements have to be fulfilled in order to conclude that a pass through arrangement meets the criteria for a transfer.

If the following conditions are met the entity has to perform the de-recognition tests in Stage 5 in order to determine whether it meets the de-recognition criteria:

- The entity has no obligation to pay cash flows to the transferee unless it collects equivalent cash flows from the transferred asset
- The entity is prohibited from selling or pledging the original asset other than as security to the eventual recipients for the obligation to pass through cash flows
- The entity is obliged to remit any cash flows without material delay and subject to certain investment restrictions

If the conditions are not met, the financial assets remain on the balance sheet.

STAGE 5: Perform de-recognition tests

If the entity transfers substantially all the risks and rewards of ownership of the asset (e.g. an unconditional sale of a financial asset), the entity de-recognizes the asset.

Test 1: Has the entity transferred substantially all risks and rewards?

The transfer of risks and rewards is evaluated on the entity's exposure before and after the transfer to the variability in amount and timing of the cash flows that are likely to occur in practice. In most cases, it will be clear whether the entity has transferred substantially all the risks and

rewards without the need for calculation. If substantially all the risks and rewards have been transferred, the asset is de-recognized. If the entity has not transferred substantially all risks and rewards Test 2 has to be carried out.

Test 2: Has the entity retained substantially all risks and rewards?

If the entity retains substantially all the risks and rewards of ownership of the asset, the entity continues to recognize the asset. If the transferor's exposure has not changed substantially as a result of the transfer, it has retained substantially all risks and rewards of ownership and should not de-recognize the asset. For example, this would be the case in a sale and re-purchase transaction where the re-purchase price is set at the sale price plus a lender's return, or where a sale of financial asset is accompanied by a total return swap that transfers the full exposure back to the transferor. If the entity has not retained substantially all the risks and rewards test 3 has to be carried out.

Test 3: Has the entity retained control of the asset?

Control is based on the transferee's practical ability to sell the asset. The transferee has this ability if it can sell the asset in its entirety unilaterally to an unrelated third party without needing to impose further restrictions on the transfer. The key issue is what the transferee is able to do in practice and not what contractual rights it has. A transferee has the practical ability to sell the asset if it is traded in an active market because it could purchase the asset in the market if it needs to return the asset to the transferor. If the asset subject to a call option can be readily obtained by the transferee in the market the transferor has lost control although he has retained some of the risks and rewards in relation to the asset. On the other hand the contractual right to dispose of an asset is of little practical use if there is no market for the asset. If the entity has lost control the asset is de-recognized. If the entity has retained control, it continues to recognize the asset to the extent of its continuing involvement.

8.4 Consequences of De-recognition

8.4.1 De-recognition of a Financial Asset—Gain Recognition

On de-recognition of a financial asset in its entirety the difference between the carrying amount and the consideration received (including any

cumulative gain or loss that had been recognized directly in equity) is included in the income statement. If only a part of a financial asset is de-recognized then the previous carrying amount of the financial asset is allocated between the part that continues to be recognized and the part that is de-recognized based on relative fair values at the date of transfer. The difference between the carrying amount allocated to the part that is de-recognized (including any cumulative gain or loss relating to the part de-recognized that had previously been recognized in equity) and the consideration received is included in the income statement as gain or loss on de-recognition.

8.4.2 Failed De-recognition of a Financial Asset—Substantially all Risks and Rewards of Ownership Retained

A transaction is accounted for as a collateralized borrowing if the transfer does not satisfy the conditions for de-recognition.

The entity recognizes a financial liability for the consideration received for the transferred asset. If the transferee has the right to sell or re-pledge the collateral, the asset is presented separately in the balance sheet (e.g. as loaned asset, pledge securities, or re-purchase receivable).

8.4.3 Failed De-recognition—Not Substantially all Risks and Rewards of Ownership Retained (Continuing Involvement)

If the asset is not de-recognized because the entity has neither transferred nor retained substantially all the risks and rewards of ownership and control has not passed to the transferee, the entity continues to recognize the asset to the extent of its continuing exposure to the asset.

Consequently, to that extent a liability must also be recognized. IAS 39 contains detailed guidance on how to account for a range of different scenarios. Essentially, the principle is that the combined presentation of the asset and liability should result in the recognition of the entity's net exposure to the asset on the balance sheet either at fair value if the asset was previously held at fair value, or at amortized cost if the asset was accounted for on that basis.

The treatment of the changes in the liability should be consistent with the treatment of changes in the asset. Consequently, when the asset subject to the transfer is classified as available-for-sale, gains and losses on both the asset and the liability will be taken to equity.

8.5 SECURITIZATION

Securitization is the process of transforming financial assets into securities. An originator of a typical securitization transfers a portfolio of financial assets to a special purpose entity (SPE). Common examples are residential mortgages, vehicle leases and trade receivables. The SPE can often obtain a higher credit rating than would be available for a debt issued by the originator and consequently, it can obtain lower interest rates from the debt holders.

In a common transaction, receivables are transferred from a company within a corporate group (the seller) to a special purpose entity for cash. The SPE carries only receivables transferred from that specific entity. The SPE is funded by the issue of commercial paper to external investors and by the issue of subordinated units intended to cover the entire credit risk specific to the receivables. The seller or another member of the seller's group purchases subordinated units in the SPE. Alternatively, the seller can retain credit risk through a guarantee to the SPE. A sponsoring bank often provides additional credit and liquidity enhancement in the form of guarantees. The seller cannot be required to re-purchase receivables that are transferred; the seller's credit risk exposure arises only from its investment in subordinated units or its guarantees. The seller may retain the residual interest in the SPE although the value of this interest may be close to zero.

The appropriate treatment for such schemes depends on the answer to two questions:

- do the receivables qualify for de-recognition under the requirements of IAS 39?
- should the SPE be consolidated under IAS 27: *Consolidated and Separate Financial Statements* and SIC-12: *Consolidation – Special Purpose Entities*?

As discussed above, it is relatively straightforward to remove an asset from the balance sheet under IAS 39, as long as the value of the retained credit risk is recognized separately. However, SIC-12 fundamentally follows a risks and rewards basis.

Therefore, retaining all the credit risk in the only asset held by an SPE is likely to lead to the conclusion that the SPE should be consolidated.

The conclusion is that many securitization schemes will result in the assets being removed from the balance sheet of the seller but that the SPE must be consolidated in the group financial statements.

8.6 De-recognition of Financial Liabilities

A financial liability is removed from the balance sheet only when it is extinguished, i.e. when the obligation is discharged, cancelled or expired. That condition is met when the liability is settled by paying the lender or when the borrower is released from primary responsibility for the liability either by process of law or by an agreement with the lender.

On de-recognition, the difference between the amount paid and the carrying amount of the liability is included in the income statement.

8.6.1 In-substance Defeasance

To achieve in-substance defeasance an enterprise places cash or other risk-free monetary assets into a structure, typically a trust. The cash inflows arising from the asset are used to make repayments of a specified liability. The possibility that the enterprise will be required to make further payments is usually remote.

De-recognition is not permitted under IAS 39 for an in-substance defeasance because the enterprise has not been legally released from its primary responsibility for the debt. Therefore, both the liability and the asset remain on the balance sheet of the enterprise.

8.6.2 Settlement and Restructuring of Debt

Companies may negotiate with their bankers or bond holders to cancel existing debt and replace it with new debt on different terms. For example, a company may decide to cancel its exposure to high interest, fixed rate debt, pay a fee or penalty on cancellation, and replace it with variable rate debt. IAS 39 provides guidance to distinguish between:

- the settlement of debt that is replaced by new debt from the same lenders
- the restructuring of existing debt

The distinction is based on whether or not the new debt has substantially different terms from the old debt. Terms are considered to be substantially different if the present value of the net cash flows including any fees paid net of any fees received under the new terms is at least 10% different from the present value of the remaining cash flows under the original debt. This distinction is important for gain or loss recognition. A gain or loss on settlement of a financial liability is recognized in the income statement. Any net cash flow in relation to the restructuring of financial liabilities is an adjustment to the debt's carrying amount and is amortized over the remaining life of the liability.

CHAPTER 9

Hedge Accounting

9.1 Hedge Accounting at a Glance

Most companies hedge risk, that is, they take actions to mitigate or offset the risks that arise from their activities. For financial risk, i.e. interest rate risk, currency risk, equity price risk, commodity price risk, etc., such hedging often involves the use of derivatives.

Hedge accounting seeks to reflect the results of hedging activities, in particular hedging using derivatives, by reporting the effects of the derivative and the risk being hedged in the same period. Hedge accounting allows entities to override the normal accounting treatment for derivatives (fair value through profit or loss) or to adjust the carrying value of assets and liabilities. It is therefore a privilege, not a right, and has to be earned. Entities can only obtain the right to achieve hedge accounting if they meet the requirements set out in IAS 39. These requirements are numerous and complex.

9.2 What is Hedge Accounting?

IAS 39 deals with all financial assets and financial liabilities including derivatives, loans, borrowings, receivables and payables, and equity investments in other entities. It requires all financial assets and financial liabilities to be classified into one of the categories set out in the standard. These categories determine how the financial instrument is measured

subsequent to its recognition (at fair value or amortized cost) and where any changes in fair value are reported (in the income statement or equity).

The basic principle in IAS 39 is that all derivatives are carried at fair value with gains and losses in the income statement. However, derivatives are commonly used to hedge recognized assets and liabilities that are measured at cost, amortized cost or at fair value with gains and losses recognized in equity, or items such as forecast transactions or firm commitments that are not recognized in the balance sheet. This creates a mismatch in the timing of gain and loss recognition.

Hedge accounting seeks to correct this mismatch by changing the timing of recognition of gains and losses on either the hedged item or the hedging instrument. This avoids much of the volatility that would arise if the derivative gains and losses were recognized in the income statement, as required by normal accounting principles.

9.3 Why Hedge Accounting?

Hedging aims to mitigate the impact of economic risks on an entity's performance. Many businesses will engage in hedging activities to limit exposure to economic risk. This can be as simple as borrowing in a foreign currency where an entity has an anticipated revenue stream in that currency. Many hedging strategies to reduce economic risk meet the criteria to qualify for the special accounting treatment identified in IAS as hedge accounting. Other equally valid economic hedging strategies may not do so.

Hedge accounting modifies the usual accounting treatment of a hedging instrument and/ or a hedged item to enable gains and losses on the hedging instrument to be recognized in the income statement in the same period as offsetting losses and gains on the hedged item. This is a matching concept.

A prerequisite for hedge accounting is that a hedging instrument, normally a derivative, is designated as an offset to changes in the fair value or cash flows of a hedged item.

Strict criteria including the existence of formal documentation and the achievement of effectiveness tests must be met at inception and throughout the term of the hedge relationship in order for hedge accounting to be applied. This can be achieved only if entities have appropriate systems and procedures to monitor each hedging relationship.

If any of the criteria for hedge accounting is no longer met (for example, failing the effectiveness test), hedge accounting must be discontinued prospectively. The hedging instrument, normally a derivative, is accounted for as a held-for-trading instrument and measured at fair value with changes in value reported in profit or loss.

9.4 Hedge Accounting Basic Concepts

9.4.1 What Qualifies as a Hedged Item?

The fundamental principle is that the hedged item creates an exposure to risk that could affect the income statement. Hedge accounting requires the item being hedged to be identified and designated at the inception of the hedge. The hedged item can be an asset, liability, firm commitment, highly probable forecast transaction or net investment in a foreign operation, or a group of any such items.

The hedged item must expose the entity to risk of changes in fair value or future cash flows that could affect the income statement, either currently or in future periods. An entity's own equity instruments may not therefore be designated as a hedged item. The types of risk that are hedged most often include foreign currency risk, interest rate risk, equity price risk, commodity price risk and credit risk. An exposure to general business risks cannot be hedged—including the risk of obsolescence of plant or the risk of unseasonable weather—because these risks cannot be reliably measured. For similar reasons, a commitment to acquire another entity in a business combination cannot be a hedged item, other than for foreign exchange risk.

IAS 39 sets out the following additional restrictions on what may be designated as a hedged item

- Interest rate risk and prepayment risk of a held-to-maturity investment cannot qualify as the hedged item because the classification of an asset as held-to-maturity indicates that the entity has the positive intent to hold the instrument to maturity without regard to changes in the fair value or cash flows attributable to changes in interest rates. However, a held-to-maturity investment can be hedged for either foreign currency risk or credit risk.
- A net open position (for example a portfolio including both financial assets and financial liabilities) cannot be designated as a hedged item. However, approximately the same effect can be achieved by

designating a part of one of the gross positions, equal in amount to the net position.

- An investment in a subsidiary or associate that is consolidated, proportionately consolidated or measured using the equity method, cannot be a hedged item in a fair value hedge.

Some common examples of qualifying hedged items (and the risk being hedged) are:

- fixed or floating-rate borrowings (interest rate risk)
- highly probable forecast sales or purchases in a foreign currency (foreign currency risk)
- foreign currency receivables, payables, borrowings and investments (foreign currency risk)
- available-for-sale equity investments (equity price risk)
- loans and receivables (interest rate risk or credit risk)
- highly probable forecast purchase or sale of commodities (commodity price risk)

9.4.1.1 Hedging a Proportion of a Hedged Item

In the case of a financial asset or financial liability, a portion of the risk or cash flows can be designated as a hedged item. For example, an entity may designate only the LIBOR portion of a debt instrument and not the credit spread. Designating the hedged item in this way can significantly improve hedge effectiveness if the credit risk of the instrument is not hedged. However, the designated portion must be less than the total cash flows on the asset or liability. For example, an entity cannot designate a LIBOR portion of a liability whose effective interest rate is below LIBOR, leaving a negative residual portion.

This ability to designate a portion of the risk or the cash flows does not extend to hedges of non-financial assets and liabilities (such as inventory). These may be hedged only in their entirety for all risks, or for foreign exchange risk.

9.4.2 What Qualifies as Hedging Instruments?

Hedge accounting requires the hedging instrument to be identified and designated at the inception of the hedge. Hedging instruments can be

either derivative financial instruments or non-derivative financial instruments described as under:

9.4.2.1 Derivatives

Most derivative financial instruments may be designated as hedging instruments provided they are with an external party. Intra-group derivatives do not qualify as a hedging instrument in consolidated financial statements, although they may qualify in the separate financial statements of individual entities in the group. A written option cannot be designated as a hedging instrument because the potential loss on an option that an entity writes could be significantly greater than the potential gain in value of a related hedged item.

A derivative may be designated as a hedging instrument only in its entirety or as a proportion (i.e. a percentage of the notional amount). Any other portion of a derivative (for example, the interest rate component of a cross-currency interest rate swap, or the first three years of a five-year derivative) cannot be designated as a hedging instrument. IAS 39 allows two exceptions to this rule: the forward points of a forward contract and the time value of an option may be excluded from the designation.

Excluding these components will improve the effectiveness of the hedge relationship for some hedging strategies.

A single derivative with several risks such as a cross-currency interest rate swap, can be designated as a hedge of more than one type of risk (for example, interest rate and foreign currency risk) provided that the separate risks are clearly identifiable and effectiveness can be measured.

Two or more derivatives (or proportions of them) may be jointly designated as a hedging instrument, including those where the risks arising from some derivatives offset those arising from others. This is useful when an entity wants to reduce the amount of a hedge; for example, because of a decrease in the hedged item or because the entity has taken on a new item that partly offsets the previously designated hedged item. The entity may take out a new derivative that partly offsets an existing hedging derivative and jointly designate them both as the hedging instrument.

A derivative need not be designated as a hedging instrument at the time that it is first entered into. However, designating a derivative other than at its inception may give rise to some ineffectiveness.

9.4.2.2 *Non-derivatives*

Non-derivative financial instruments can be designated as hedging instruments only for foreign currency risk. A foreign currency borrowing for example, may be designated as a hedge of the currency risk of a net investment in a foreign entity. As with derivatives, the non-derivative must be with an external party in order to qualify; inter-company loans are not permissible hedging instruments in consolidated financial statements.

In addition to the criteria described above, the following instruments cannot be designated as a hedging instrument:

- Investments in an unquoted equity instrument and derivatives that are linked to and must be settled by delivery of such unquoted equity instruments that are not carried at fair value because their fair value cannot be reliably measured
- An entity's own equity instruments

9.5 Hedge Accounting Steps

Regardless of the type of financial risk exposure, hedge accounting usually involves a number of the same key steps in order to comply with IAS 39 requirements. Each of these will be described in detail in further paragraphs.

Table 9.1 Steps in the Hedging Process

At the inception of a hedge
Step 1—Determine the need for hedging Step 2—Choose a hedge accounting model Step 3—Determine whether hedge criteria are met Step 4—Prepare hedge documentation
Ongoing (at least each reporting date)
Step 5—Measure actual hedge effectiveness Step 6—Reassess prospective hedge effectiveness Step 7—Reassess hedge relationships and need for re-designation Step 8—Prepare hedge accounting journal entries

9.6 Categories of Hedge Relationships

Hedge accounting may be applied to three types of hedge relationships—fair value hedges, cash flow hedges and hedges of the net investment in a foreign operation. Each of these has specific requirements on accounting for the fair value changes.

9.6.1 Fair Value Hedges

The risk being hedged in a fair value hedge is a change in the fair value of an asset or liability or unrecognized firm commitment, or an identified portion of an asset, liability or firm commitment that is attributable to a particular risk and could affect the income statement.

An example of a fair value hedge is a fixed-rate loan where the interest rate exposure is converted to floating-rates with an interest rate swap. Another example is mitigating a potential fall in the value of an available-for-sale equity investment with an equity forward or option.

Changes in fair value may arise through changes in interest rates (for fixed-rate loans), foreign exchange rates, equity prices or commodity prices. The impact on the income statement may be immediate or expected to happen in future periods. For example, a foreign currency borrowing that is translated at the closing rate would have an immediate impact on the income statement. An available-for-sale equity security, where gains and losses are deferred in equity, would affect the income statement when sold or impaired.

The hedged asset or liability is adjusted for fair value changes attributable to the risk being hedged, and those fair value changes are recognized in the income statement. The hedging instrument is measured at fair value with changes in fair value also recognized in the income statement.

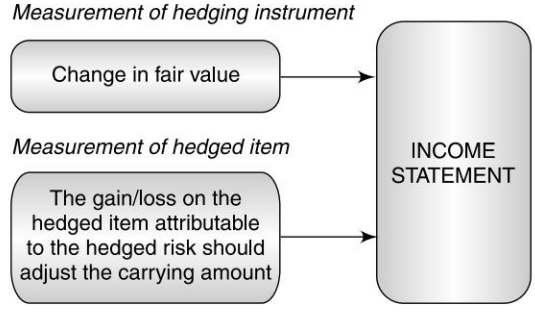


Fig. 9.1 Fair Value Hedge Accounting

9.6.2 Cash Flow Hedges

The risk being hedged in a cash flow hedge is the exposure to variability in cash flows that:

1. are attributable to a particular risk associated with a recognized asset or liability, an unrecognized firm commitment (currency risk only), or a highly probable forecast transaction
2. could affect the income statement

Future cash flows might relate to existing assets and liabilities such as future interest payments or receipts on floating-rate debt. Future cash flows can also relate to forecast sales or purchases in a foreign currency. Volatility in future cash flows will result from changes in interest rates, exchange rates, equity prices or commodity prices.

The hedge of a firm commitment is accounted for as a fair value hedge provided that all the criteria for hedge accounting are met. A hedge of the foreign currency risk associated with firm commitments may be designated as a cash flow hedge or as a fair value hedge, as such a foreign currency risk affects both the cash flows and the fair value of the hedged item.

Examples of common cash flow hedges are an interest rate swap converting a floating-rate loan to fixed-rate, a forward foreign exchange contract hedging forecast future sales of inventory in a foreign currency or a forecast future purchase of inventory or equipment in a foreign currency.

Provided the hedge is effective, changes in the fair value of the hedging instrument are initially recognized in a 'hedging reserve' in equity. They are transferred (recycled) to the income statement when the hedged transaction affects profit or loss. The ineffective portion of the change in the fair value of the hedging instrument (if any) is recognized directly in profit or loss.

The amount recognized in equity in the 'hedging reserve' should be the lower of:

1. the cumulative gain or loss on the hedging instrument from the inception of the hedge
2. the cumulative change in the fair value (present value) of the expected cash flows on the hedged item from the inception of the hedge

If the change in the hedging instrument exceeds the change in the hedged item (sometimes referred to as an 'over-hedge'), ineffectiveness

will arise. If the change in the hedging instrument is less than the change in the hedged item (sometimes referred to as an 'under-hedge'), no ineffectiveness will arise. This is different from a fair value hedge in which ineffectiveness arises on both over and under-hedges.

If a hedged forecast transaction (such as a hedged future purchase of inventory or equipment) results in the recognition of a non-financial asset or liability, the entity has a choice. It can either:

1. adjust the carrying amount of the asset or liability by the hedging gain or loss previously deferred in equity (sometimes referred to as 'basis adjustment'). The hedging gain or loss is 'automatically' recycled to the income statement when the hedged asset or liability is depreciated, impaired or sold
2. leave the hedging gain or loss in equity and transfer it to the income statement when the hedged asset or liability affects profit and loss

The choice should be applied consistently to all such hedges. However, basis adjustment is not permitted when the hedged forecast transaction results in a financial asset or liability.

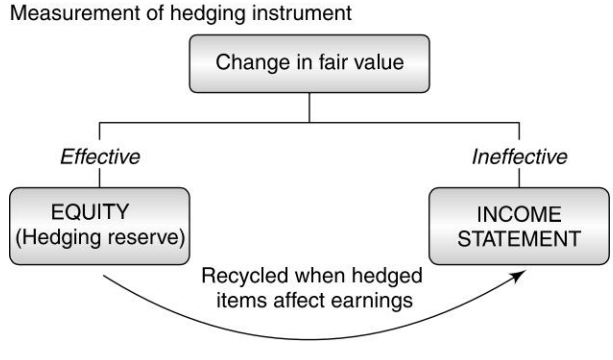


Fig. 9.2 Cash Flow Hedge Accounting

9.6.3 Hedges of Net Investment in a Foreign Operation

An entity may have overseas subsidiaries, associates, joint ventures or branches (foreign operations). It may hedge the currency risk associated with the translation of the net assets of these foreign operations into the group's presentation currency. IAS 39 permits hedge accounting for such a hedge of a net investment in a foreign operation, provided that the usual hedging requirements are met.

The amount of a net investment in a foreign operation under IAS 21 is the reporting entity's interest in the net assets of that operation, including any recognized goodwill. Exchange differences arising on the consolidation of these net assets are deferred in equity until the foreign operation is disposed of or liquidated. They are recognized in the income statement on disposal or liquidation as part of the gain or loss on disposal.

A hedge of a net investment with a foreign currency borrowing or a derivative can qualify for hedge accounting. The foreign currency gains or losses on the hedging instrument are deferred in equity to the extent the hedge is effective, until the subsidiary is disposed of or liquidated, when they become part of the gain or loss on disposal.

The hedging instrument in a net investment hedge will almost always need to be denominated in the foreign operation's functional currency in order to be effective.

The amount recognized in equity in the 'hedging reserve' should be the lower of:

1. the cumulative gain or loss on the hedging instrument from the inception of the hedge
2. the cumulative change in the fair value (present value) of the expected cash flows on the hedged item from the inception of the hedge

If the change in the hedging instrument exceeds the change in the hedged item (sometimes referred to as an over-hedge), ineffectiveness will arise. If the change in the hedging instrument is less than the change in the hedged item (sometimes referred to as an under-hedge), no ineffectiveness will arise. This is different from a fair value hedge, in which ineffectiveness arises on both over and under-hedges.

9.7 Criteria for Obtaining Hedge Accounting

Hedge accounting is an exception to the usual accounting principles for financial instruments. IAS 39 therefore requires hedge relationships to meet certain criteria in order to qualify for hedge accounting. Management must identify, document and test the effectiveness of those transactions for which it wishes to use hedge accounting. The specific requirements are as follows.

- The hedging relationship must be formally designated and documented at the inception of the hedge. This must include identifying and documenting the risk management objective, the hedged item, the hedging instrument, the nature of the risk being hedged and how the effectiveness of the hedge will be assessed.
- The hedge must be expected to be highly effective at the inception of the hedge.
- The effectiveness of the hedge must be tested regularly throughout its life. Effectiveness must fall within a range of 80%–125% over the life of the hedge. This leaves some scope for small amounts of ineffectiveness, provided that the overall effectiveness falls within this range.
- In the case of a hedge of a forecast transaction, the forecast transaction must be highly probable.

The criteria for hedge accounting are onerous and have systems implications for all entities. Hedge accounting is optional, and management should consider the costs and benefits when deciding whether to use it. Much of the burden and cost associated with using hedge accounting arises from the effectiveness testing requirement.

9.8 Hedge Documentation

At the inception of the hedge, formal documentation of the hedge relationship must be established. The hedge documentation prepared at inception of the hedge must include a description of the following:

- the entity's risk management objective and strategy for undertaking the hedge
- the nature of the risk being hedged
- clear identification of the hedged item (asset, liability or cash flows) and the hedging instrument
- how hedge effectiveness will be assessed prospectively and measured on an ongoing basis

The method and procedures should be described in sufficient detail to establish a firm basis for measurement at subsequent dates in order to be consistently applied for the particular hedge.

IAS 39 does not mandate a specific format for the documentation and in practice hedge documentation may vary in terms of layout, technology used, etc. The important thing is that the documentation includes the basic content noted earlier.

However, in practical terms an entity may be able to standardize its documentation forms in such a way that narrative descriptions are minimized or not necessary, since they are included by reference to other documentation. Entities generally wish to base their hedge documentation on reports that have already been prepared for risk management purposes and limit the amount of additional work required by IAS 39. What is important is that a system is established, which links the details of the hedged item and hedging instrument with standardized information from other sources in such a way that full documentation is available to demonstrate the existence of a qualifying hedge relationship at any time during its life. A Hedge Documentation Template is provided in Appendix E for reference purposes.

9.9 Hedge Effectiveness

9.9.1 Prospective and Retrospective Effectiveness Tests

IAS 39 requires two kinds of effectiveness tests.

- A prospective effectiveness test—This is a forward-looking test of whether a hedging relationship is expected to be highly effective in future periods. It is required, at a minimum, at the inception of the hedge and at the time an entity prepares its interim or annual financial statements.
- A retrospective effectiveness test—This is a backward-looking test of whether a hedging relationship has actually been highly effective in a past period. It is required, at a minimum, at the time an entity prepares its interim or annual financial statements.

Both tests need to be met for hedge accounting to be available.

A hedge is regarded as highly effective only if both of the following conditions are met:

- At the inception of the hedge and in subsequent periods, the hedge is expected to be highly effective in achieving offsetting changes in

fair value or cash flows attributable to the hedged risk during the period for which the hedge is designated (prospective effectiveness test)

- The actual results of the hedge are within a range of 80%–125% (retrospective effectiveness test)

Hedge ineffectiveness can arise for a number of reasons, including when the hedged item and the hedging instrument:

- are in different currencies
- have different maturities
- use different underlying interest or equity indices
- use commodity prices in different markets
- are subject to different counterparty risks
- where the hedging instrument has a fair value other than zero at inception

Hedge effectiveness can often be improved by careful designation of the hedge relationship. In a hedge relationship of a financial asset or financial liability, designating the hedged item as a portion of the asset or liability can improve effectiveness. Excluding the forward points or time value of option respectively from a hedge relationship using a forward contract or an option can improve effectiveness.

Hedge accounting is discontinued prospectively when a hedge fails one of the effectiveness tests set out earlier.

Even if a hedge passes the effectiveness tests mentioned, it may not be perfectly effective. Any ineffectiveness is recognized in the income statement of the current period.

9.9.2 Which Methods can be Used to Assess Hedge Effectiveness?

IAS 39 does not specify a single method for assessing hedge effectiveness prospectively or retrospectively. The method an entity adopts depends on its risk management strategy and should be included in the documentation at the inception of the hedge. The most common methods used are:

- critical terms comparison
- dollar offset method
- regression analysis

Each of these methods is described here.

9.9.2.1 *Critical Terms Comparison*

This method consists of comparing the critical terms of the hedging instrument with those of the hedged item. The hedge relationship is expected to be highly effective where all the principal terms of the hedging instrument and the hedged item match exactly—for example, notional and principal amounts, credit risk, term, pricing, re-pricing dates (aligned to test date), timing, quantum and currency of cash flows—and there are no features (such as optionality) that would invalidate an assumption of perfect effectiveness. This method does not require any calculations.

This method may only be used in the limited cases but in such cases it is the simplest way to demonstrate that a hedge is expected to be highly effective (prospective effectiveness testing). A separate assessment is required for the retrospective effectiveness test, as ineffectiveness may arise even when critical terms match; for example, because of a change in the liquidity of a hedging derivative or in the creditworthiness of the derivative counterparty.

9.9.2.2 *Dollar Offset Method*

This is a quantitative method that consists of comparing the change in fair value or cash flows of the hedging instrument with the change in fair value or cash flows of the hedged item attributable to the hedged risk. Depending on the entity's risk management policies, this test can be performed either:

1. on a cumulative basis (i.e. with the comparison performed from the inception of the hedge), or
2. on a period-by-period basis (i.e. with the comparison performed from the last testing date)

A hedge is highly effective if the results are within the range of 80%–125%.

The dollar offset method can be performed using different approaches, including the following.

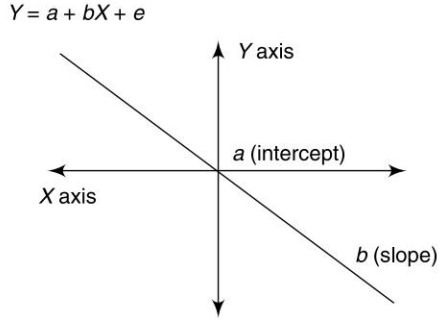
- *The hypothetical derivative approach*—The hedged risk is modeled as a derivative called a 'hypothetical derivative' (as it does not exist). The hypothetical derivative approach compares the change in the fair value or cash flows of the hedging instrument with the change in the fair value or cash flows of the hypothetical derivative.
- *The benchmark rate approach*—This is a variant of the hypothetical derivative approach. The benchmark rate is a 'target' rate established for the hedge. In an interest rate hedge of a floating-rate debt instrument using an interest rate swap, the benchmark rate is usually the fixed rate of the swap at the inception of the hedge. The benchmark rate approach first identifies the difference between the actual cash flows of the hedging item and the benchmark rate. It then compares the change in the amount or value of this difference with the change in the cash flow or fair value of the hedging instrument.
- *The sensitivity analysis approach*—This approach is applied to assess the effectiveness of a hedge prospectively. This method consists of measuring the effect of a hypothetical shift in the underlying hedged risk (for example, a 10% shift in the foreign currency exchange rate being hedged) on both the hedging instrument and the hedged item.

When the dollar offset method is used for assessing retrospectively the effectiveness of a hedge, it has the advantage of determining the amount of ineffectiveness that has occurred and of generating the numbers required for the accounting entries.

9.9.2.3 Regression Analysis

This statistical method investigates the strength of the statistical relationship between the hedged item and the hedging instrument. Regression analysis involves determining a 'line of best fit' and then assessing the 'goodness of fit' of this line. It provides a means of expressing in a systematic fashion, the extent by which one variable, 'the dependent', will vary with changes in another variable, 'the independent'. In the context of assessing hedge effectiveness, it establishes whether changes in the hedged item and hedging derivative are highly correlated. The independent variable reflects the change in the value of the hedged item and the dependent variable reflects the change in the value of the hedging instrument.

Regression analysis may be expressed as follows:



Y = dependent variable; hedging instrument change in fair value
a = *y* –axis intercept
b = slope of line (coefficient); change in *Y*/ change in *X*
X = independent variable; hedged item change in value
e = random error

There are three critical test statistics to determine an effective hedge relationship when using regression analysis:

1. slope of line must be negative: $-0.8 < b < -1.25$
2. $R^2 > 0.96$
3. statistical validity of the overall regression model (the F-statistic) must be significant

Slope of line—The slope of the line represents the variance-minimizing hedge ratio, as this analysis determines the line of best fit. If the regression analysis is performed using equal units of the hedging instrument and the hedged item, the slope of the line can be used to determine the optimal hedge ratio (i.e. the optimal volume of derivative that should be transacted to maximize expected effectiveness). This ratio can then be used by the entity to determine how many units of the hedging instrument it should transact to best mitigate the risk for the particular position being hedged.

Once the hedge ratio has been determined and the hedge transacted, the regression analysis is re-performed using the actual quantities of the hedging instrument and the hedged item. The slope is used when assessing the effectiveness of the actual hedge relationship. The slope must be negative and fall within the range of –0.8 to –1.25. If the slope is positive, there is no hedge relationship (i.e. the hedging instrument does not mitigate the hedged risk). If the slope is negative but outside the range of

–0.8 to –1.25, there is some hedge relationship but it is not strong enough to pass the effectiveness test.

Hedge accounting is not permitted in either case.

Coefficient of determination (R^2)—R^2 indicates the extent of the correlation. Best practice is that it should have a value greater than 0.96 since this is equivalent to a dollar offset of between 80% and 125%.

R^2 represents the proportion of variability in the derivative that can be explained by the change in the hedged item. For example, if $R^2 = 0.99$, this means that 99% of the change in the derivative is explained by the movement in the hedged item.

F-statistic—The F-statistic is a standard output from the statistical model. It is a measure of the statistical significance of the relationship between the dependent variable and the independent variable (i.e. whether the derivative relationship, relative to the hedged risk, is a statistically valid relationship).

The better the relationship, the higher the F-statistic will be. The F-statistic varies with the number of data points used. It can be obtained from statistical tables. The F-statistic should be significant at a 95% or greater confidence level.

From an accounting perspective, regression analysis proves whether or not the relationship is sufficiently effective to qualify for hedge accounting. It does not calculate the amount of any ineffectiveness nor does it provide the numbers necessary for the accounting entries where the analysis demonstrates that the 'highly effective' test has been passed.

The accounting entries are based on changes in the fair values of the hedging instrument and of the hedged item, both calculated using actual rates at the test date.

9.10 Termination of Hedge Relationship

Hedge accounting ceases *prospectively* when any of the following occurs:

- a hedge fails an effectiveness test
- the hedged item is sold or settled
- the hedging instrument is sold, terminated or exercised

- management decides to revoke the designation
- for a hedge of a forecast transaction, the forecast transaction is no longer highly probable

If a hedge relationship fails an effectiveness test, hedge accounting ceases from the last date on which the hedge was demonstrated to be effective, which will usually be the beginning of the period in which the hedge fails the effectiveness test. Hedge accounting ceases from the date of the event or change in circumstances if the entity determines the event or change in circumstances that caused the hedging relationship to fail the effectiveness criteria, and demonstrates that the hedge was effective before the event or change in circumstances occurred. All future fair value changes in a derivative hedging instrument are recognized in the income statement. Future changes in the fair value of the hedged item, and any non-derivative hedging instruments, are accounted for as they would be without hedge accounting. For example, if the hedged item is an available-for-sale asset, future changes in fair value other than impairment and currency differences on monetary items are recognized in equity; if the hedged item is a loan or receivable, future changes in fair value other than impairment are not recognized unless the item is sold.

IAS 39 prescribes how any existing hedge accounting gains/losses already recorded in previous reporting periods should be treated. The objective is to ensure that hedging gains and losses that arose in a period when hedge accounting was used, continue to be matched with the hedged item. In particular this refers to the following.

- In the case of a fair value hedge, the carrying value of the hedged item will have been adjusted for changes in the hedged risk. If the hedged item is a debt instrument, the accumulated hedging adjustment is amortized over the remaining life of the instrument by re-calculating the effective interest rate. If the hedged item is an equity instrument classified as available-for-sale, the accumulated hedging adjustment is not amortized but will affect the amount of any impairment loss, or gain or loss on sale.
- In the case of a cash flow hedge, gains or losses arising in the effective period of a cash flow hedge will have been recognized in equity. These gains remain in equity until the related cash flows occur. Where a forecast transaction is no longer highly probable but still expected to occur, hedging gains and losses previously deferred in equity remain in equity until the transaction affects profit or loss. Once a forecast transaction is no longer expected to occur, any gain or loss is released immediately to the income statement.

9.11 Accounting Consequences of Hedge Termination

Testing hedge effectiveness more regularly is a way to reduce the impact of the unexpected termination of a hedge relationship.

If a hedging instrument ceases to be part of a hedge relationship, the instrument may be re-designated to a new hedge relationship, as long as this is for the entire remaining term of the instrument. This would once again fulfill the requirement of being designated as a hedging instrument for the entire outstanding period. For example, a forward contract of 100, designated to hedge a forecasted transaction of 100, may no longer be expected to be effective if new forecasts indicate that the forecasted transaction may now only involve expected cash flows of 80. In this situation, the original hedge designation will be discontinued. A new relationship under which a proportion (80) of the forward is designated as a hedge of the new expected cash flow of 80 will be allowed. The changes in fair value of the remaining unused portion of the forward (20) must be recognized in the income statement.

Table 9.2 Accounting Consequences of Hedge Termination

Reasons for termination	Fair value hedge	Cash flow hedge
Hedged item: De-recognition of the hedged item	A gain or loss on the de-recognized item is recorded in the income statement based on the carrying amount, including the adjustments resulting from the hedge. The hedging instrument continues to be measured at fair value with changes recorded in the income statement.	The gain or loss on the hedging instrument previously recorded in equity is recorded in the income statement immediately. The hedging instrument will be measured at fair value with changes recorded in the income statement.

(*Contd.*)

(*Contd.*)

Reasons for termination	Fair value hedge	Cash flow hedge
Expected transaction or firm commitment no longer expected to occur.	Not applicable	The gain or loss on the hedging instrument previously recorded in equity is recorded in the income statement immediately.
Expected transaction or firm commitment no longer highly probable but still expected to occur.	Not applicable	Hedge accounting is terminated prospectively. Further changes in the fair value of hedging instrument must be recorded in the income statement. Any gain or loss previously recognized in equity remains in equity until the transaction occurs or is no longer expected to occur.
Hedging instrument: De-recognition of the hedging instrument other than replacements and roll-overs.	The gain or loss on de-recognition of the hedging instrument is recorded in the income statement. The hedged item must revert to the applicable accounting requirements from the date of de-recognition of the hedging instrument i.e. cease to be adjusted for changes resulting from the hedged risk.	A gain or loss on the hedging instrument previously recorded in equity remains in equity until the forecasted transaction occurs.

(*Contd.*)

(*Contd.*)

Reasons for termination	Fair value hedge	Cash flow hedge
The hedge no longer meets the hedge criteria (effectiveness) or management decides to re-designate the hedge	Same accounting as in de-recognition of the hedging instrument except that instead of de-recognizing the hedging instrument it should be prospectively re-measured through the income statement, unless the hedging instrument is re-designated as a hedge of another hedged item.	Same accounting as in de-recognition of the hedging instrument except that instead of de-recognizing the hedging instrument it should be prospectively re-measured through the income statement, unless the hedging instrument is re-designated as a hedge of another hedged item.

9.12 Impairment of an Asset that is Hedged

The principles for hedge accounting do not override the accounting treatment under IAS 36 or IAS 39 if there is impairment of the hedged item. Therefore, if a hedged item is impaired, this impairment should be recognized even if the risk that causes the impairment is being hedged and hedge accounting is applied. However, the hedge accounting principles may require that a gain on a hedging instrument used to hedge the risk that gave rise to the impairment will be recognized simultaneously in the income statement and may (partly) offset the recognized impairment.

For example, an entity may hold a portfolio of securities that are classified as available-for-sale with fair value adjustments recognized in equity. The fair value at a given point is 300. The entity has a put option to put the securities to a third party at 250. The entity may apply hedge accounting to this transaction provided that the hedge relationship meets the relevant criteria. The entity designates the option as a hedge of the cash flows from an expected future sale of the securities. Assume that the fair value of the portfolio subsequently decreases to 180 and there is objective evidence of impairment. This impairment must be recognized in the income statement. The amount of impairment to be recorded would be the difference between the original cost of the securities (300) and the

new fair value (180), not taking into account the existence of the put option. However, since at this point the impairment on the hedged item affects the income statement, the related gain on the put option would also be recognized in the income statement. This means that a gain of 70 (250–180) ignoring time value, will be recognized in the income statement and will partly offset the loss on the securities.

CHAPTER 10

Hedge Accounting Models

10.1 SYNOPSIS

This chapter sets out four detailed case studies of how hedge accounting can be applied in practice. The objective is to present the mechanics of applying the IAS 39 requirements, starting with the company's risk management and effectiveness testing policies, working through the necessary designation and effectiveness testing and culminating with the accounting entries.

The four cases illustrate some of the most common hedging strategies used in practice. They cover:

- hedges of interest rate risk and foreign currency risk
- the types of hedges recognized for accounting purposes by IAS 39
- a range of hedging instrument (swaps, forward contracts, etc.)
- a variety of hedging designations (for example, excluding the time value of an option)
- different methods of effectiveness testing

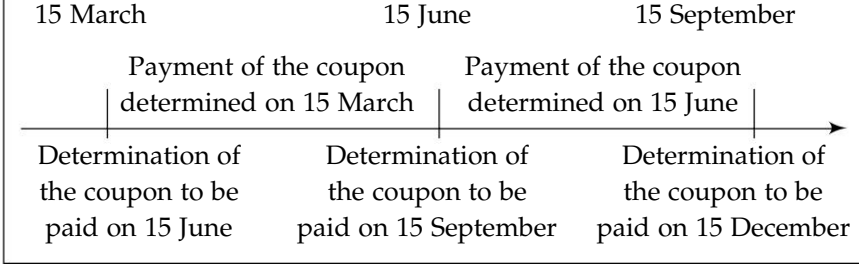
Fair Value Hedge—Interest Rate Risk

Case 10.1 Conversion of Fixed Rate Debt into Variable Rate Debt using an Interest Rate Swap—Fair Value Hedge

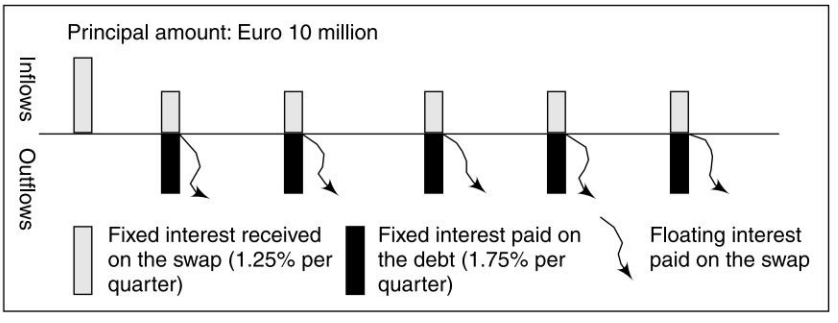
Swap Expert Company (SEC) requires financing of Euro 10 million for 4 years. On 15 March 2006, SEC issues non-callable 4-year €10 million bonds. The interest rate on the bonds is fixed at 7% and is payable quarterly. The bonds are issued at par.

No transaction costs relating to debt issuance are incurred. SEC's overall risk management strategy and current position is to have variable rate funding. Therefore, it enters into a 4-year receive three-month interest rate swap (IRS) with a notional amount of 10 million. The IRS pays a floating interest rate based on LIBOR and receives a 5% fixed interest rate. The floating-rate of interest for the first 3 months is fixed at 4.562%. The timing of the IRS cash flows is pre-fixed/post-paid and equals those of the bond's interest.

A pre-fixed post-paid IRS is an interest rate swap in which the floating coupon is determined based on the market interest rate at the beginning of each period and is paid at the end. The floating coupon on the IRS is determined on 15 March and paid on 15 June, and so on.



The cash flows on the debt and the swap can be represented as follows:



Three-month Euro LIBOR rate at various dates when the swap is re-set are as follows:

15-03-2006	4.562%	15-09-2006	5.280%
15-06-2006	5.080%	15-12-2006	5.790%

The forward rates derived from the Euro LIBOR swap yield curve and the implied zero coupon rates at the dates of testing effectiveness are as follows:

	Testing Dates			
	Forward rates		Zero Coupon rates	
	15-03-2006 %	30-06-2006 %	15-03-2006 ZC 1 (%)	30-06-2006 ZC 2 (%)
15-06-2006	4.562	—	4.641	—
15-09-2006	4.623	5.069	4.672	5.172
15-12-2006	4.684	5.130	4.704	5.204
15-03-2007	4.744	5.191	4.735	5.235
15-06-2007	4.805	5.251	4.766	5.266
15-09-2007	4.865	5.311	4.798	5.298
15-12-2007	4.926	5.371	4.829	5.329
15-03-2008	4.986	5.432	4.860	5.360
15-06-2008	5.046	5.492	4.892	5.392
15-09-2008	5.107	5.552	4.923	5.423
15-12-2008	5.167	5.612	4.954	5.454
15-03-2009	5.228	5.673	4.986	5.486
15-06-2009	5.288	5.733	5.017	5.517
15-09-2009	5.348	5.793	5.048	5.548
15-12-2009	5.409	5.853	5.080	5.580
15-03-2010	5.469	5.913	5.111	5.611

The forward rates are used to calculate the projected cash flows. The zero coupon rates are used to discount the projected cash flows to the testing date.

Risk Management Policies for Interest Rate Risk

Swap Expert Company (SEC) is exposed to market risk primarily related to foreign exchange, interest rates and the market value of the investments in liquid funds.

SEC manages its exposure to interest rate risk through the proportion of fixed and variable rate debt in its total net debt portfolio. This proportion is determined twice a year by SEC's financial risk committee and approved by the board of directors. The benchmark duration for net debt is 12 months.

To manage this mix, SEC may enter into a variety of derivative financial instruments such as interest rate swap contracts.

Hedge Effectiveness Testing Policies

Strategy I: Hedges of Interest Rate Risk Using Interest Rate Swaps for Fair Value Hedges

PROSPECTIVE EFFECTIVENESS TESTING Prospective effectiveness testing should be performed at the inception of the hedge and at each reporting date. The hedge relationship is highly effective if the changes in fair value of the hedged item that are attributable to the hedged risk are expected to be offset by the changes in fair value of the hedging instrument.

Prospective effectiveness testing should be performed by comparing the numerical effects of a shift in the hedged interest rate (Euro LIBOR zero coupon curve) on both the fair value of the hedging instrument and the fair value of the hedged item.

This comparison should normally be based on at least three interest rate scenarios. However, for hedges where the critical terms of the hedging instrument perfectly match the critical terms, including re-set dates of the hedged item, one scenario is sufficient.

$$\text{Effectiveness} = \frac{\text{Change in clean fair value of hedging instrument}}{\text{Change in clean fair value of hedged item}}$$

The change in the clean fair value of a swap (i.e. hedging instrument) is the difference between the clean fair values of the projected cash flows of the swap discounted using the zero coupon curve derived from the swap yield curve at the date of testing, and the clean fair value of the projected *shifted* cash flows discounted using the shifted zero coupon rates.

The change in the clean fair value of a bond (i.e. hedged item) is the difference between the clean fair value of the cash flows on the bond excluding credit spread discounted using the zero coupon curve derived from the swap yield curve at the date of testing, and the clean fair value of the same cash flows discounted using the shifted zero coupon rates.

The scenarios that should be used in the effectiveness test are:

(i) a parallel shift (upwards) of 100 basis points of the zero coupon curve

(ii) a change in the slope of the zero coupon curve of a 5% increase in the rate for one-year cash flows, a 10% increase in the rate for two-year cash flows, and a 15% increase in the rate for three-year and more cash flows

(iii) a change to a flat zero coupon curve

RETROSPECTIVE EFFECTIVENESS TESTING Retrospective effectiveness testing should be performed at each reporting date using the dollar offset method on a cumulative basis. Hedge effectiveness is demonstrated by comparing the cumulative change in the clean fair value of the hedging instrument with the cumulative change in the clean fair value of the hedged item attributable to the hedged risk and showing that it falls within the required range of 80%–125%.

$$\text{Effectiveness} = \frac{\text{Cumulative change in clean fair value of hedging instrument}}{\text{Cumulative change in clean fair value of hedged item}}$$

A change in the clean fair value of a swap is the difference between:

(i) the clean fair value of the projected cash flows of the swap, based on the original yield curve discounted using the zero coupon curve derived from the yield curve at the beginning of the hedge

(ii) the clean fair value of the projected cash flows of the swap, based on the yield curve at the date of testing discounted using the zero coupon curve derived from the yield curve at the date of testing.

A change in the clean fair value of a bond is the difference between:

(i) the clean fair value of the cash flows on the bond, excluding the credit spread discounted using the zero coupon curve derived from the yield curve at the beginning of the hedge

(ii) the clean fair value of the same cash flows discounted using the zero coupon curve derived from the yield curve at the date of testing

Hedge Designation

Swap Expert Company's hedge documentation is shown as follows.

1. Risk Management Objective

For the current period, SEC's approved strategy in accordance with its risk management policies is to maintain a ratio of fixed:floating-rate net debt of between 40:60 and 50:50. In order to achieve this ratio, management has selected this debt to be swapped from fixed to floating.

2. Hedging Relationship

Fair value hedge—swap of fixed to floating-rates.

3. Nature of Risk Being Hedged

Interest rate risk—change in the fair value of debt number SEC123 attributable to movements in the Euro LIBOR zero coupon curve. Credit risk on the debt is not designated as being hedged.

4. Hedged Item

Transaction number—reference number SEC123 in the treasury management system.

The hedged item is a four-year, Euro 10 million, 7% fixed rate debt , which pays interest quarterly.

5. Hedging Instrument

Transaction number—reference number IRS007 in the treasury management system.

The hedging instrument is a four-year interest rate swap, notional value Euro 10 million, under which fixed interest of 5% is received quarterly and actual three-month LIBOR is paid with a three-month re-set.

Hedge designation—the fair value movements on the full notional Euro 10m of the swap IRS007 is designated as a hedge of fair value movements in the debt SEC123 attributable to the movements in Euro LIBOR zero coupon curve.

6. Effectiveness Testing

Testing shall be performed using hedge effectiveness testing Strategy I in the effectiveness testing policy.

DESCRIPTION OF PROSPECTIVE TEST Dollar offset method, being the ratio of the change in the clean fair value of the swap IRS007, divided by the change in the clean fair value of the bond SEC123 attributable to the changes in Euro LIBOR zero coupon curve.

The critical terms of the swap do not perfectly match the critical terms of the hedged debt. As required by the risk management policies, the prospective tests will therefore be performed based on three scenarios. (Only scenario 1, the 100 basis points increase, is illustrated here but in practice all three would be performed.)

Frequency of testing: at inception of the hedge and at each reporting date.

DESCRIPTION OF RETROSPECTIVE TEST Dollar offset method, being the ratio of the change in the clean fair value of swap IRS007, divided by the change in the clean fair value of the bond SEC123 attributable to changes in the Euro LIBOR zero coupon curve on a *cumulative* basis.

Frequency of testing: at every reporting date after inception of the hedge.

Effectiveness Tests and Accounting Entries

1. Prospective Effectiveness Test on 15 March 2006

SEC's management should assess prospectively the effectiveness of the hedge, as required by IAS 39.

Based on the hedge documentation, the prospective effectiveness test consists of comparing the effects of a 100 basis points shift upwards of the zero coupon curve on the clean fair value of the swap and the clean fair value of the bond.

A coupon of 7% per annum is paid on the bond (i.e. Euro 175,000 per quarter), which can be split into an interest rate of 5% and a credit spread of 2%. For effectiveness testing purposes, only the cash flows relating to

Prospective Effectiveness Test on March 15, 2006

	15/06/06	15/09/06	15/12/06	…	15/12/09	15/03/10	Total
Cash flows on the swap (Forward rates)							
Fixed leg	125,000	125,000	125,000	…	125,000	125,000	
Variable leg*	–114,050	–115,575	–117,100	…	–135,225	–136,725	
Net cash flows	10,950	9,425	7,900	…	–10,225	–11,725	
Discounted CF @ ZC 1	10,827	9,212	7,632	…	–8,491	–9,606	0
Shifted zero coupon curve							
Fixed leg	125,000	125,000	125,000		125,000	125,000	
Variable leg + 1% (100 bps)	–114,059	–139,050	–140,575	…	–158,700	–161,725	
Net cash flows	10,941	–14,050	–15,575		–33,700	–36,725	
Discounted CF @ ZC1+1% (100 bps)	10,801	–13,921	–15,486	…	–27,709	–27,785	**–309,140**
Cash flows on the bond							
Cash flows	–125,000	–125,000	–125,000	…	–125,000	–10,125,000	
Discounted CF at ZC1	–123,590	–122,178	–120,764	…	–103,804	–8,294,694	**–10,000,000**
Discounted CF at ZC1+ 1%	–123,297	–121,599	–119,906	…	100,181	–7,986,443	**–9,660,714**
							339,286
					Effectiveness		**–91.11%**

**The variable leg of the swap is the projected cash flow according to forward rates derived from the swap curve. For example the 15-06-2006 projected cashflow is calculated as Euro 10 mio * 4.562%/4, as the swap has quarterly settlement.*

The hedge is expected to be effective.

the interest rate (i.e. Euro 125,000 per quarter) are taken into account. The credit risk associated with the debt is not part of the hedge relationship; the credit spread of 2% in the coupon is therefore excluded from the tests.

2. Accounting Entries on 15 March 2006

The bond is recognized as the proceeds received by SEC, which represents its fair value on the issuance date. The bond is subsequently be measured at amortized cost.

(in Euro)	Debit	Credit
Cash/Bank a/c	10,000,000	
To Bond a/c		10,000,000
Being the issuance at par of a Euro 10 million four-year bond with a fixed coupon of 7% p.a.		

The swap entered into by SEC is recognized at fair value on the balance sheet. The fair value of the swap is nil at inception, as it is issued at market rate. The floating-rate for the first period is set to 4.562%, which is the three-month swap rate.

(in Euro)	Debit	Credit
Purchase – IRS a/c	NIL	
To Cash/Bank a/c		NIL
Being the recognition of the interest rate swap at fair value (Nil)		

3. Accounting Entries on 15 June 2006

On June 15, the first coupon of the bond is paid and the first swap is settled.

Recognition of interest on bond

(in Euro)	Debit	Credit
Finance costs – Interest paid a/c	175,000	
To Cash/Bank a/c		175,000
Being the interest on bond at 7% for three months paid		

Cash settlement of the swap

(in Euro)	Debit	Credit
Finance costs–Interest paid a/c	114,050	
Cash/Bank a/c	10,950	
To Finance costs–Interest received a/c		125,000
Being the settlement of the swap: receive 5% and pay 4.562% for three months		

These two transactions result in a total charge of € 164,050 to finance cost, which is equivalent to 6.562% interest for the period (i.e. the rate on the variable leg of the swap of 4.562% + 2% credit spread). The variable rate on the swap for the following quarter is set at the three-month swap rate of 5.080%.

4. Retrospective Effectiveness Test on 30 June 2006

IAS 39 requires the effectiveness of a hedging relationship to be assessed retrospectively as a minimum at each reporting date. Based on SEC's risk management policies, the effectiveness of the hedge must be assessed using the dollar offset method.

The dollar offset method consists of comparing the effects of the change in Euro LIBOR swap yield curve between 15 March and 30 June on the clean fair values of the hedged item and the hedging instrument. (See Table on next page)

The hedge is highly effective for the period.

5. Accounting Entries on 30 June 2006

Recognition of accrued interest on the bond

(in Euro)	Debit	Credit
Finance costs – Interest paid a/c	29,167	
To Cash/Bank a/c		29,167
Being the accrued interest on bond at 7% for 15 days recognized		

Retrospective Effectiveness Test on June 30, 2006

	15/09/06	15/12/06	15/03/07	…	15/12/09	15/03/10	Total
Cash flows on the swap (forward rates)							
Fixed leg	104167**	125,000	125,000	…	125,000	125,000	
Variable leg*	–105,833	–128,257	–129,765	…	–146,327	–147,830	
Net cash flows	–1,666	–3,257	–4,765	…	–21,327	–22,830	
Discounted CF @ ZC2	–1,649	–3,182	–4,596	…	–17,676	–18,646	**–161,184**
Clean fair value at original yield curve							**0**
		Change in clean fair value (cumulative)					**–161,184**
Cash flows on the bond							
Cash flows	–104,167**	–125,000	–125,000	…	–125,000	–10,125,000	
Discounted CF at ZC2	–103,078	–122,127	–120,563	…	–103,600	–8,269,357	**–9,839,030**
Clean fair value at original yield curve							**10,000,000**
			Change in clean fair value (cumulative)				**160,970**
			Effectiveness				**–100.13%**

*The variable leg for the first period is set to 5.08%. The rest of the variable cash flows are projected according to the forward rates derived from the current swap yield curve as they have not yet been set.

**The effect of accruals needs to be removed, as the test is based on the clean fair value. 75 days of the next coupon have not yet been accrued; the amount of the first coupon included in the test is therefore the cash flow 125,000*75/90.

Recognition of fair value changes of the swap

(in Euro)	Debit	Credit
Other operating expense – ineffectiveness a/c	161,184	
Finance costs – Interest paid a/c	333	
To Purchase – IRS a/c		161,517
Being the swap recorded at dirty fair value (including accrued interest)		

The recorded change in dirty fair value of the swap can be reconciled to the clean fair value of the swap as follows:

Clean fair value on 30-06-2006	(161,184)
Accrued interest on receive fixed 5% for 15 days (discounted)	20,788
Accrued interest on pay variable 5.080% for 15 days (discounted)	(21,121)
Dirty fair value	**(161,517)**

Fair Value Adjustment to the Hedged Item

All the criteria for hedge accounting are met for the period ended 30 June 2006, and the fair value hedge accounting can be applied. The carrying amount of the bond is adjusted for the fair value change of the hedged risk (i.e. the changes in the clean fair value of the bond attributable to changes in the zero coupon curve). The entry is as follows:

(in Euro)	Debit	Credit
Bond a/c	160,970	
To other operating income–ineffectiveness a/c		160,970
Being the change in fair value of the debt attributable to the hedged risk		

As the hedge is not 100% effective, the ineffectiveness of € 214 (€ 161,184 – € 160,970) is recognized in profit or loss. Best practice is to present the ineffectiveness in 'other operating income and expense', as illustrated.

Prospective Effectiveness test on June 30, 2006

	15-09-06	15-12-06	15-03-07	…	15-12-09	15-03-10	Total
Cash flows on the swap (Forward rates)							
Fixed leg	104,167	125,000	125,000	…	125,000	125,000	
Variable leg	–105,833	–128,257	–129,765	…	–146,327	–147,830	
Net cash flows	–1,666	–3,257	–4,765	…	–21,327	–22,830	
Discounted CF @ ZC2	–1,649	–3,182	–4,596	…	–17,676	–18,646	**–161,184**
Shifted zero coupon curve							
Fixed leg	104,167	125,000	125,000		125,000	125,000	
Variable leg+1%	–105,833	–152,234	–153,731	…	–170,177	–171,669	
Net cash flows	–1,666	–27,234	–28,731		–45,177	–46,669	
Discounted CF @ ZC2+1%	–1,646	–26,493	–27,526	…	–36,241	–36,807	**–451,850**
							–290,666
Cash flows on the debt							
Cash flows	–104,167	–125,000	–125,000	…	–125,000	–10,125,000	
Discounted CF at ZC1	–103,078	–122,178	–120,563	…	–103,600	–8,269,357	**–9,839,030**
Discounted CF at ZC1+1%	–102,875	–121,599	–119,758	…	–100,277	–7,985,352	**–9,528,668**
							310,362
					Effectiveness		**–93.65%**

The hedge is expected to be effective.

The testing and accounting entries are carried out in the same manner throughout the remaining life of the hedge relationship.

Fair Value Hedge—Foreign Exchange Risk

Case 10.2 Foreign Currency Firm Commitment Sales Transactions—Fair Value Hedge

SpareParts Co is an Indian camera component manufacturer with Indian Rupees (Rs) as its functional currency. Its reporting dates are 30 September and 31 March.

On 26 April 2006, SpareParts Co enters into a contract to sell camera components to a German client and is contractually committed to deliver 25,000 units at a price of Euro 20 per unit on 30 April, 2007. The contract contains a detailed description of the characteristics of the components to be delivered.

The invoice is payable on 30 June, 2007. Based on the terms of the contract, SpareParts Co will pay a penalty of Euro 50,000 if:

(i) it fails to deliver the units on time, or

(ii) the units delivered are not as specified in the contract

The costs incurred by SpareParts Co in producing the components are expected to be Rs. 15 million and all such costs are denominated in Rupees.

On the date it enters into the sale contract, SpareParts Co's management decides to hedge the resulting foreign currency risk. It enters into a forward contract with the following characteristics to sell 500,000 Euro against Rupees:

Type	European forward contract
Amount sold	Euro 500,000
Amount purchased	Rs 25,765,700
Forward rate (rounded-off)	1 Euro = Rs 51.5314 (assumed)
Start date	26 April 2006
Maturity date	30 April 2007

Tip: A hedge of foreign currency risk of a firm commitment may be treated as either a fair value hedge or a cash flow hedge because the foreign currency risk affects both the fair value and the cash flows of the hedged item. SpareParts Co's management can choose to apply either cash flow hedge accounting or fair value hedge accounting when hedging the foreign currency risk of a firm commitment. The chosen method must be applied consistently for all similar hedges.

SpareParts Co's management wishes to apply fair value hedge accounting for this hedging relationship.

Foreign currency exchange rates on various dates during the hedge are as follows:

	26-04-2006	30-09-2006	31-03-2007	30-04-2007	30-06-2007
EUR/INR spot rate	51.5000	51.5800	51.6000	51.6500	51.6300
EUR/INR forward rate for maturity of 30-04-2007	51.5314	51.6068	51.6091	51.6500	N.A.

Annual interest rates applicable for discounting a cash flow at various dates during the hedge are as follows:

	26-04-2006	30-09-2006	31-03-2007	30-04-2007
INR interest rates	5.5500%	5.6200%	5.6500%	5.5750%
EUR interest rates	1.3500%	1.3500%	1.3750%	1.3250%

Note: The discount factor is calculated on Actual/ 360 basis.

Extracts of Risk Management Policies for Foreign Currency Risk

Foreign Currency Risk

SpareParts Co's functional currency is Indian Rupees. It is exposed to foreign exchange risk because some of its purchases and sales are denominated in currencies other than Rupees. It is therefore exposed to the risk that movements in exchange rates will affect both its net income and financial position, as expressed in Rupees.

SpareParts Co's foreign currency exposure arises from:

1. highly probable forecast transactions (sales/purchases) denominated in foreign currencies
2. firm commitments denominated in foreign currencies

SpareParts Co is mainly exposed to USD/INR and EUR/INR foreign exchange risks. Transactions denominated in foreign currencies other than USD and EUR are not material. SpareParts Co's policy is to hedge all material foreign exchange risk associated with highly probable forecast transactions, firm commitments and monetary items denominated in foreign currencies.

Hedging Instruments

SpareParts Co uses forward contracts to hedge foreign exchange risk. All derivatives must be entered into with counterparties with a credit rating of AA or higher.

Extracts of Effectiveness Testing Policies for Interest Rate Risk

Strategy II: Hedge of a Firm Commitment for Foreign Currency Risk

PROSPECTIVE EFFECTIVENESS TESTING Prospective effectiveness testing should be performed at inception of the hedge and at each reporting date. Prospective effectiveness testing is performed by comparing the critical terms of the hedging instrument with those of the hedged item.

If any of the critical terms of the hedging instrument do not match the critical terms of the hedged item, a numerical prospective test is required. This consists of comparing the numerical effects of a shift of the exchange rate (for example EUR/INR rate) on both the fair value of the hedged cash flows and the fair value of the hedging instrument. This should be performed using at least three scenarios.

RETROSPECTIVE EFFECTIVENESS TESTING Retrospective effectiveness testing must be performed at each reporting date using the dollar offset method on a cumulative basis. Under this method, the hedge is demonstrated to be effective by comparing the cumulative change in the fair value of the spot component of the hedging instrument with the cumulative change in the fair value of the hedged firm commitment

attributable to the hedged risk. A hedge is considered to be highly effective if the results of the retrospective effectiveness tests are within the range 80%–125%.

$$\text{Effectiveness} = \frac{\text{Cumulative change in fair value of hedging instrument}}{\text{Cumulative change in fair value of firm commitment}}$$

Change in the fair value of the spot component of the hedging instrument (the forward contract) is the difference between the fair value of the spot component at the inception of the hedge and the end of the testing period, based on translating the foreign exchange leg of the forward contract at the current spot rate and discounting the net cash flows on the derivative using the zero coupon rates derived from the swap yield curve.

Change in fair value of the firm commitment is the difference between the present value of the hedged cash flow at inception of the hedge and at the end of the testing period, translated at the current spot rate for the remaining maturity and discounted using the zero coupon rates derived from the swap yield curve.

Hedge Designation

SpareParts Co documents the hedge as follows.

1. Risk Management Objective

In order to comply with SpareParts Co's foreign exchange risk management strategy, the foreign exchange risk arising from this firm commitment denominated in Euro is hedged.

2. Hedging Relationship

Fair value hedge.

3. Nature of Risk being Hedged

EUR/INR spot exchange rate risk arising from a firm commitment in Euro for which delivery is due on 30 April 2007 and payment is expected on 30 June 2007.

4. Hedged Item

Contract No 240179 signed on 26 April 2006; a firm commitment to sell 25,000 units for € 500,000 on 30 April 2007.

5. *Hedging Instrument*

Transaction number—reference number P2428N in the treasury management system.

The hedging instrument is a forward contract to sell € 500,000 with the following characteristics:

Type	European forward contract
Amount sold	€ 500,000
Amount purchased	Rs 25,765,700
Forward rate	EUR 1 = Rs 51.5314
Spot rate at inception	EUR 1 = Rs 51.5000
Start date	26 April 2006
Maturity date	30 April 2007

Hedge designation—the spot component of the forward contract P2428N is designated as a hedge of the change in the fair value of the firm commitment to sell 25,000 units for Euro 500,000 attributable to movements in EUR/INR spot rate.

6. *Effectiveness Testing*

Effectiveness testing strategy II fair value hedges of firm commitments (foreign currency) will be used for testing.

DESCRIPTION OF PROSPECTIVE TESTING Comparison of critical terms—the critical terms of the hedged item are compared to the critical terms of the hedging instrument:

- amount of the firm commitment (in Euro) versus the notional amount of the Euro leg of the hedging instrument
- expected maturity date (of the firm commitment) versus maturity date of the hedging instrument
- EUR/INR exchange rate used to determine the fair value of (a) the hedging instrument and (b) the hedged item.

Frequency of testing: at inception of the hedge and then at each reporting date.

DESCRIPTION OF RETROSPECTIVE TESTING Dollar offset method, being the ratio of the change in the fair value of the spot component of the forward contract P2428N, divided by the change in fair value of the firm commitment attributable to changes in the EUR/INR spot rate, on a *cumulative* basis.

Frequency of testing: at every reporting date after the inception of the hedge.

Effectiveness Tests and Accounting Entries

1. Prospective Effectiveness Test on 26 April, 2006

Hedge effectiveness is to be assessed prospectively, as required by IAS 39. Based on the hedge documentation, the prospective effectiveness test consists of comparing the critical terms of the hedging instrument with the critical terms of the hedged item.

	Hedged item	Hedging instrument
Amount	Buy EUR 500,000	Sell EUR 500,000
Maturity date	30 April 2007	30 April 2007
Exchange rate	EUR/INR spot exchange rate	EUR/INR spot exchange rate

All the critical terms of the hedging instrument match the critical terms of the hedged item; the hedge is therefore expected to be highly effective.

2. Accounting Entries on 26 April, 2006

Although it is designated as a hedged item in a fair value hedge, the hedged firm commitment is not recognized in the balance sheet at inception of the hedge because it is an executory contract for the future delivery of component parts. Only the subsequent changes in the fair value that are attributable to the hedged risk will be accounted for in the balance sheet. The forward contract is not recognized in the balance sheet at inception, as its fair value is nil, as shown in the Box that follows.

Forward Contract		
Notional amount	(500,000)	EUR
Forward rate at inception	51.5314	

EUR leg translated into INR	(25,765,700)	INR
Discount factor	0.9461	INR
FV of the EUR leg	(24,376,929)	
Notional amount	25,765,700	INR
Discount factor	0.9461	INR
FV of the INR leg	24,376,929	INR
FV of the derivative	0	INR

Hedged firm commitment			Forward contract		
Firm commitment	500,000	EUR	Notional amount	(500,000)	EUR
Spot rate at inception	51.5000		Spot rate at inception	51.5000	
Translated leg	25,750,000	INR	Translated leg	(25,750,000)	INR
			Discount factor	0.9461	INR
			FV of EURO leg (spot)	(24,362,075)	INR
FV of the camera parts to be delivered	(25,750,000)	INR	Spot portion of notional at inception	25,750,000	INR
Difference	0	INR	Discount factor	0.9461	
Discount factor	0.9461	INR	FV of the INR leg	24,362,075	INR
FV of the hedged item (spot)	0	INR	FV of forward contract (spot)	0	INR
Effectiveness = 100%					

3. Retrospective Effectiveness Test on 30 September, 2006

Hedge effectiveness is to be assessed retrospectively at each reporting date. Therefore, as per SpareParts Co's policies the hedge effectiveness is assessed using the dollar offset method.

Hedged firm commitment			Forward Contract		
Firm commitment	500,000	EUR	Notional amount	(500,000)	EUR
Spot rate	51.5800		Spot rate	51.5800	
Translated leg	25,790,000	INR	Translated leg	(25,790,000)	INR
			Discount factor	0.9683	INR

(*Contd.*)

(*Contd.*)

			FV of EURO leg (spot)	(24,972,457)	INR
FV of the camera parts to be delivered (500,000* 51.50)	(25,750,000)	INR	Spot portion of notional at inception (500,000* 51.50)	25,750,000	INR
Difference	40,000	INR	Discount factor	0.9683	
Discount factor	0.9683	INR	FV of the INR leg	24,933,725	INR
FV of the hedged item (spot)	38,732	INR	FV of forward contract (spot)	(38,732)	INR
Effectiveness = –100%					

The hedge has been highly effective for the period ended 30 September, 2006.

4. Accounting Entries as on 30 September, 2006

Fair value hedge accounting can be applied because all the criteria for hedge accounting have been met. The fair value of the derivative can be calculated as follows:

Forward Contract		
Notional amount	(500,000)	EUR
Forward rate	51.6068	
Translated leg	(25,803,400)	INR
Discount factor	0.9683	INR
FV of the EUR leg	(24,985,432)	
Notional amount	25,765,700	INR
Discount factor	0.9683	INR
FV of the INR leg	24,948,927	INR
FV of the derivative	(36,505)	INR

The entries are as follows:

(in Rupees)	Debit	Credit
Other operating income and expenses a/c	36,505	
To FX forward sale a/c		36,505
Being change in fair value of the forward contract {(36,505)–NIL}		

(in Rupees)	Debit	Credit
Other assets (firm commitment) a/c	38,732	
To Other operating income and expenses a/c		38,732
Being change in fair value of the hedged firm commitment {38732 – NIL}		

5. Prospective Effectiveness Test on 31 March, 2006

Critical terms comparison method is used for prospective effectiveness test.

	Hedged item	Hedging instrument
Amount	Buy EUR 500,000	Sell EUR 500,000
Maturity date	30 April 2007	30 April 2007
Exchange rate	EUR/INR spot exchange rate	EUR/INR spot exchange rate

The hedge is expected to be highly effective since all the terms match.

6. Retrospective Effectiveness Test on 31 March, 2007

Hedge effectiveness is to be assessed using the dollar offset method on a cumulative basis.

Hedged firm commitment			Forward Contract		
Firm commitment	500,000	EUR	Notional amount	(500,000)	EUR
Spot rate	51.6000		Spot rate	51.6000	
Translated leg	25,800,000	INR	Translated leg	(25,800,000)	INR
			Discount factor	0.9954	INR
			FV of EURO leg (spot)	(25,681,320)	INR
FV of the camera parts to be delivered	(25,750,000)	INR	Spot portion of notional at inception	25,750,000	INR
Difference	50,000	INR	Discount factor	0.9954	
Discount factor	0.9954	INR	FV of the INR leg	25,631,550	INR
FV of the hedged item (spot)	49,770	INR	FV of forward contract (spot)	(49,770)	INR
Effectiveness = –100%					

The hedge has been highly effective for the period ended 31 March, 2007.

7. Accounting Entries as on 31 March, 2007

Fair value hedge accounting can be applied since all the criteria for hedge accounting are met.

The fair value of the derivative can be calculated as follows:

Forward Contract		
Notional amount	(500,000)	EUR
Forward rate	51.6091	
Translated leg	(25,804,550)	INR
Discount factor	0.9954	INR
FV of the EUR leg	(25,685,849)	
Notional amount	25,765,700	INR
Discount factor	0.9954	INR
FV of the INR leg	25,647,178	INR
FV of the derivative	(38,671)	INR

The accounting entries are as follows:

(in Rupees)	Debit	Credit
Other operating income and expenses a/c	2,166	
To FX Forward sale		2,166
Being change in fair value of the forward contract {(38,671) – (36,505)}		

(in Rupees)	Debit	Credit
Other assets (firm commitment) a/c	11,038	
To other operating income and expenses		11,038
Being change in fair value of the hedged firm commitment {49,770 – 38,732}		

8. Prospective Effectiveness Test on 30 April, 2007

Critical terms comparison method is used for prospective effectiveness test.

	Hedged item	Hedging instrument
Amount	Buy EUR 500,000	Sell EUR 500,000
Maturity date	30 April 2007	30 April 2007
Exchange rate	EUR/INR spot exchange rate	EUR/INR spot exchange rate

The hedge is expected to be highly effective. Since all the terms match.

9. Retrospective Effectiveness Test on 30 April, 2007

Hedge effectiveness is to be assessed using the dollar offset method on a cumulative basis.

Hedged firm commitment			Forward Contract		
Firm commitment	500,000	EUR	Notional amount	(500,000)	EUR
Spot rate	51.6500		Spot rate	51.6500	
Translated leg	25,825,000	INR	Translated leg	(25,825,000)	INR
			Discount factor	1.0000	INR
			FV of EURO leg (spot)	(25,825,000)	INR
FV of the camera parts to be delivered	(25,750,000)	INR	Spot portion of notional at inception	25,750,000	INR
Difference	75,000	INR	Discount factor	1.0000	
Discount factor	1.0000	INR	FV of the INR leg	25,750,000	INR
FV of the hedged item (spot)	75,000	INR	FV of forward contract (spot)	(75,000)	INR
Effectiveness = –100%					

The hedge has been highly effective for the period ended 30 April 2007.

Forward Contract		
Notional amount	(500,000)	EUR
Forward rate	51.6500	
Translated leg	(25,825,000)	INR
Discount factor	1.0000	INR
FV of the EUR leg (spot)	(25,825,000)	
Notional amount	25,765,700	INR
Discount factor	1.0000	INR
FV of the INR leg	25,765,700	INR
FV of the derivative	(59,300)	INR

The accounting entries are as follows:

(in Rupees)	Debit	Credit
Other operating income and expenses a/c	20,629	
To FX Forward sale a/c		20,629
Being change in fair value of the forward contract {(59,300) – (38,671)}		

(in Rupees)	Debit	Credit
Other assets (firm commitment) a/c	25,230	
To other operating income and expenses		25.230
Being change in fair value of the hedged firm commitment {75,000 – 49,770}		

Recognition of the sale of camera parts on 30 April 2007

(in Rupees)	Debit	Credit
Debtors (Receivable) a/c	25,825,000	
To Sales a/c		25,825,000
Being the sale of 25,000 units @ €20/unit (spot rate of 51.6500)		

As the receivable is short-term and Euro interest rates are low, management of the company has determined that the effect of discounting is not material and therefore, as permitted by IAS 39, the receivable is recognized at face value.

(in Rupees)	Debit	Credit
Cost of goods a/c	15,000,000	
To Inventory stock a/c		15,000,000
Being the cost of goods sold @ Rs. 15 million		

Re-classification of amount recognized as firm commitment

The firm commitment is no longer recognized in the balance sheet, having been met delivery of the camera parts and recognition of the receivable. The balance sheet amount relating to firm commitment is therefore derecognized. As the expiry of the firm commitment forms part of the consideration received on the sale, the corresponding entry is to revenue.

(in Rupees)	Debit	Credit
Sales a/c	75,000	
To other assets (firm commitment) a/c		75,000
Being de-recognition of firm commitment		

Cash settlement of the derivative

The derivative matures and is settled in cash.

(in Rupees)	Debit	Credit
FX Forward sale a/c	59,300	
To Cash/Bank a/c		59,300
Being cash settlement of the derivative		

SpareParts Co is exposed to foreign currency risk on the receivable, it may choose to enter into a new derivative to hedge the foreign currency risk of the receivable. As the re-translation of the receivable under IAS 21 will affect the income statement, hedge accounting is not necessary.

Cash Flow Hedge—Interest Rate Risk

Case 10.3 Conversion of Variable Rate Debt into Fixed Rate Debt using an Interest Rate Cap—Cash Flow Hedge

Swap Expert Company (SEC) is a Spanish company with Euro as its functional currency. SEC's reporting date is December 31.

On January 1, 2006 SEC obtains a three-year loan of Euro 10 million. The interest rate on the loan is variable at EURIBOR plus 80 basis points and is payable annually. The rate for the first coupon is set at 5.80%. Interest is paid annually on December 31. We have assumed that no transaction costs are incurred on obtaining the loan.

On January 1, 2006 SEC buys a three-year interest rate cap on EURIBOR with a strike rate of 5%. The timing of the interest rate cap cash flows equals that of the loan interest expense. SEC pays an upfront premium for the cap of Euro 120,000.

The zero coupon curves derived from EURIBOR on various dates during the hedge are as follows:

Zero coupon rates (assumed)	31-12-2006	31-12-2007	31-12-2008
01-01-2006	5.00%	5.06%	5.10%
31-12-2006	5.60%	5.64%	5.68%

Extracts of Risk Management Policies for Interest Rate Risk

SEC is exposed to interest rate risk on interest bearing debt and investments. SEC manages its exposure to interest rate risk through the proportion of fixed and variable rate debt in its total net debt portfolio. To manage this proportion of fixed and variable rate debt, SEC may enter into the following derivative financial instruments: interest rate swaps; purchased interest rate caps; and interest rate collars, provided that, in the case of a collar, either a net premium is paid or the value at inception is nil.

For the purpose of determining the debt proportion, caps and collars are regarded as converting debt to fixed rate. However, the proportion of debt that is subject to a cap or collar may not exceed 10% of the total net debt outstanding.

Extracts of Effectiveness Testing Policies for Interest Rate Risk

Strategy III: Interest Rate Hedges Using Purchased Interest Rate Caps and Collars

PROSPECTIVE EFFECTIVENESS TESTING FOR CASH FLOW HEDGE RELATIONSHIPS Prospective effectiveness testing should be performed at the inception of the hedge and at each reporting date.

It should be performed by comparing the numerical effects of a shift in the relevant interest rate on both the present value of cash flows being hedged and the fair value of the hedging instrument.

This test should normally be based on at least three interest rate scenarios. However, for hedges where the critical terms of the hedging

instrument perfectly match the critical terms of the hedged item, one scenario is sufficient (assuming a shift of 100 basis points up).

When the hedging instrument is an option (a cap or a collar), the time value is not included in the hedge relationship and is excluded from prospective effectiveness testing.

RETROSPECTIVE EFFECTIVENESS TESTING FOR CASH FLOW HEDGE RELATIONSHIPS Retrospective effectiveness testing should be performed at each reporting date using the dollar offset method. The hedge is effective if this amount falls within a range of 80%–125%. Accrued interest is not taken into account in such tests.

When the hedging instrument is an option (a cap or a collar), the option's time value is not included in the hedge relationship and is therefore excluded from retrospective effectiveness testing.

The change in the intrinsic value of the cap is the difference between the intrinsic value of the cap at the beginning and end of the testing period. The cap's cash flows are calculated using the current spot rate and discounted using the zero coupon rates derived from the relevant swap yield curve.

The change in the present value of the interest paid on the loan is the difference between the present value of the projected interest to be paid on the loan (excluding the credit spread) at the beginning and end of the testing period, attributable to movements in EURIBOR for rates of above the hedged rate. The coupons are calculated using the current spot rate and discounted using the zero coupon rates derived from the swap yield curve.

Hedge Designation

SEC's hedge documentation is as follows:

1. Risk Management Objective

For the current period, SEC's approved strategy in accordance with its risk management policies is to maintain a ratio of fixed:floating-rate net debt of between 40:60 and 50:50. In order to meet this chosen ratio, the management has decided to cap the floating-rate of this loan.

2. Hedging Relationship

Cash flow hedge—cap floating interest rate at 5% + 80 basis points.

3. Nature of Risk being Hedged

Interest rate risk—variability in interest paid on the loan number P2428G attributable to movements in EURIBOR when it is above 5%. Credit risk on the debt is not designated as being hedged.

4. Hedged Item

Transaction number—reference number P2428G in the treasury management system.

The hedged item is a three-year, EUR 10 million variable rate loan with a coupon of EURIBOR + 80 basis points, paid annually on 31 December.

5. Hedging Instrument

Transaction number—reference number N0179J in the treasury management system.

The hedging instrument is a purchased three-year interest rate cap with the following characteristics:

Type	Purchased cap
Notional amount	EUR 10 million
Strike	5%
Underlying	EURIBOR (at settlement date)
Start date	1 January 2006
Maturity date	31 December 2008
Settlement date	31 December
Premium paid	EUR 120,000

Hedge designation—the change in the intrinsic value of the cap N0179J is designated as a hedge of the change in the present value of the coupons on the loan P2428G attributable to movements in EURIBOR when it is above 5%. The time value of the cap is excluded from the designation.

6. Effectiveness Testing

Hedge accounting strategy III shall be applied.

DESCRIPTION OF PROSPECTIVE TEST Dollar offset method, being the ratio of the change in the intrinsic value of the cap N0179J, divided by the change in the present value of the coupons paid on the loan P2428G attributable to changes in EURIBOR interest rate (i.e. excluding the credit spread on the loan).

The critical terms of the cap perfectly match the critical terms of the portion of the debt designated as the hedged item. As permitted in the risk management polices, the prospective tests will therefore be performed using only one scenario (a 100 basis points shift upwards in EURIBOR).

Frequency of testing: at the inception of the hedge and then at each reporting date.

DESCRIPTION OF RETROSPECTIVE TEST Dollar offset method, being the ratio of the change in the intrinsic value of the cap N0179J, divided by the change in the present value of the coupons paid on the loan P2428G attributable to changes in EURIBOR interest rate (excluding the credit spread) above 5%.

Frequency of testing: at every reporting date after the inception of the hedge.

Effectiveness Tests and Accounting Entries

1. Prospective Effectiveness Test on 1 January, 2006

EURIBOR is 5% at inception of the hedge. SEC's management must assess prospectively the effectiveness of the hedge, as required by IAS 39.

Based on the hedge documentation, the prospective effectiveness test consists of comparing the effects of a 100 basis points shift of LIBOR on the intrinsic value of the cap and the present value of the hedged cash flows.

A coupon of EURIBOR + 80 basis points is paid on the loan. For effectiveness testing purposes, only the cash flows relating to EURIBOR are taken into account. The credit risk associated with the loan (80 basis points) is not part of the hedge relationship; it is therefore excluded from the tests.

Prospective effectiveness test on 1 January 2006

	31-12-06	31-12-07	31-12-08	Total
Cash flows on the cap				
Expected cash flows at 5.00%	0	0	0	
Discounted CF at ZC1	0	0	0	0
Expected cash-flows at 6.00%	100,000	100,000	100,000	
Discounted CF @ ZC1+100 bps	94,340	89,000	83,962	267,301
				267,301
Cash flows on the loan				
Expected cash flows at 5.00%	–500,000	–500,000	–500,000	
Intrinsic value of the cap	500,000	500,000	500,000	
Portion being hedged	0	0	0	
Discounted CF at ZC1	0	0	0	0
Expected cash flows at 6.00%	–600,000	–600,000	–600,000	
Intrinsic value of the cap	500,000	500,000	500,000	
Portion being hedged	–100,000	–100,000	–100,000	
Discounted CF at ZC1+100 bps	–94,340	–89,000	–83,962	–267,301
				–267,301
Effectiveness = $\frac{\text{Change in fair value of cap}}{\text{Change in fair value of loan}}$				
	267,301 ÷ (267,301)			–100%

2. Accounting Entries on 1 January, 2006

The loan is recognized at the proceeds received by Swap Expert Company,

which represents its fair value on the issuance date. The loan is classified as borrowings and will be subsequently measured at amortized cost.

(in EUR)	Debit	Credit
Bank a/c	10,000,000	
To Borrowings a/c		10,000,000
Being the amount borrowed EUR 10 million at EURIBOR + 80 bps for three years		

The cap entered into by SEC is recognized at fair value in the balance sheet, which is the premium paid by SEC.

(in EUR)	Debit	Credit
Purchase – Interest rate cap a/c	120,000	
To Bank a/c		120,000
Being interest rate cap recognized at fair value		

3. Retrospective Effectiveness Test on 31 December, 2006

The EURIBOR on 31 December, 2006 is 5.60%.

Retrospective Effectiveness test on 31 December, 2006

	31-12-06	31-12-07	31-12-08	Total
Cash flows on the cap				
Expected cash flows at 5.60%	Received	60,000	60,000	
Discounted CF at 5.60%	–	56,818	53,805	110,623
Expected cash flows at 5.00%	0	0	0	
Discounted CF @ 5.00%	0	0	0	0
				110,623

(*Contd.*)

(*Contd.*)

Cash flows on the loan				
Expected cash flows at 5.60%	Paid	–560,000	–560,000	
Intrinsic value of the cap	—	500,000	500,000	
Portion being hedged	0	–60,000	–60,000	
Discounted CF at 5.60%	0	–56,818	–53,805	–110,623
Expected cash flows at 5.00%	–500,000	–500,000	–500,000	
Intrinsic value of the cap	500,000	500,000	500,000	
Portion being hedged	0	0	0	
Discounted CF at 5.00%	0	0	0	0
				–110,623
Effectiveness = $\frac{\text{Change in clean fair value of cap}}{\text{Change in clean fair value of loan}}$				
		110,623 ÷ (110,623)		–100%

4. Accounting Entries on 31 December, 2006

Recognition of interest paid on loan

(in EUR)	Debit	Credit
Interest expenses a/c	640,000	
To Bank a/c		640,000
Being the interest paid on loan at 5.60% + 0.80%		

Cash flow hedge accounting

The change in the fair value of the cap (before cash settlement) amounts to EUR 170,623 for the period ended 31 December 2006.

Hedging instrument (Interest rate cap)	Clean fair value 31-12-2006 (i)	Cash settlement (ii)	Value before settlement 31-12-2006 (iii)=(i)+(ii)	Fair value 01-01-2006 (iv)	Difference (v)=(iii)–(iv)
Intrinsic value {a}	110,623	(60,000)	170,623	0	170,623
Time value (assumed) {b}	80,000*	—	80,000	120,000	(40,000)
Fair value of the cap {a + b}	**190,623**	**(60,000)**	**250,623**	**120,000**	**130,623**

** The time value has been assumed for the purpose of this case. In reality, the time value would be established using an option pricing model and would vary with factors such as interest rates, the remaining term of the cap and the volatility of interest rates.*

Based on the retrospective effectiveness test performed on December 31, 2006, the hedge is 100% effective. The change in the intrinsic value of the cap is recognized in equity. The change in time value of the cap is not a part of the hedge and therefore recognized directly in profit or loss.

(in EUR)	Debit	Credit
Purchase – Interest rate cap a/c	130,623	
Other operating income and expenses a/c	40,000	
To Cashflow hedging reserve (equity)		170,623
Being the change is fair value of cap recognized		

Recognition of cash settlement on the cap

(in EUR)	Debit	Credit
Bank a/c	60,000	
To Purchase – Interest rate cap a/c		60,000
*Being the interest on cap 10,000,000 * (5.60% -5.00%) received*		

Transferring of the gain on cap from equity

(in EUR)	Debit	Credit
Cash flow hedging reserve (equity) a/c	60,000	
To Interest expense a/c		60,000
*Being interest on cap 10,000,000 * (5.60% -5.00%) transferred*		

The overall effect is that SEC pays a net coupon of EUR 580,000 for the period ended 31 December 2006, representing a rate of 5.80% p.a. (strike cap of 5% + 80 bps).

4. Prospective Effectiveness Test on 31 December 2006

Prospective Effectiveness Test on 31 December 2006

	31-12-06	31-12-07	31-12-08	Total
Cash flows on the cap				
Expected cash flows at 5.60%	Received	60,000	60,000	
Discounted CF at 5.60%	—	56,818	53,805	110,623
Expected cash flows at 6.60%	Received	160,000	160,000	
Discounted CF @ 5.60%+100 bps	—	150,094	140,801	290,895
				180,271
Cash flows on the loan				
Expected cash flows at 5.60%	Paid	–560,000	–560,000	
Intrinsic value of the cap	—	500,000	500,000	
Portion being hedged	—	–60,000	–60,000	
Discounted CF at 5.60%	—	–56,818	–53,805	–110,623
Expected cash flows at 6.60%	Paid	–660,000	–660,000	
Intrinsic value of the cap	—	500,000	500,000	
Portion being hedged	—	–160,000	–160,000	
Discounted CF at 5.60%+100 bps	—	–150,094	–140,801	–290,895
				–180,271
Effectiveness = $\frac{\text{Change in fair value of cap}}{\text{Change in fair value of loan}}$				
	180,271/(180,271)			–100%

The testing and accounting entries are carried out in the same manner throughout the remaining life of the hedge relationship.

Cash Flow Hedge—Interest Rate Risk

Case 10.4 Hedge of Highly Probable Foreign Currency Forecast Purchases—Cash Flow Hedge

Sony Corp. (SC) is an American company with USD as functional currency. Its reporting date is 31 December.

Sony Corp. produces and sells digital cameras and camera equipments. The management anticipates a tremendous demand for the latest digital products in the Asia-Pacific region from the month of September, 2007. In view of this, the management wishes to encash upon this opportunity and enter the Asian markets by August, 2007.

The production capacity has to be increased accordingly and therefore, a significant amount of lens (raw material) has to be purchased in May 2007 for the start of production. A company EuroCyber based out of Spain will supply the lenses. Based on SC's production plans and the prices that the supplier is currently charging , SC's management forecasts that 2,500,000 lenses will be received and invoiced in May, 2007 at a price of EUR 4 per unit. The invoice is expected to be paid on 30 June, 2007. On 1 July 2006 SC's management decides to hedge the foreign currency risk arising from its highly probable forecast purchase. SC enters a forward contract to buy EUR against USD. On that date, the forecast purchase is considered as highly probable, as the board of directors has approved the purchase and negotiations with the Spanish supplier are far advanced.

The foreign currency forward contract entered into as a hedge of the highly probable forecast purchase is as follows:

Type	European forward contract
Amount purchased	EUR 10,000,000
Amount sold	USD 13,275,000
Forward rate	1 EUR = 1.3275 USD
Start date	1 July, 2006
Maturity date	30 June, 2007

Exchange rates on various dates during the hedge are as follows:

	01-07-2006	31-12-2006	31-05-2007	30-06-2007
EUR/USD spot rate	1.3200	1.3500	1.3900	1.3500
EUR/USD forward rate	1.3275	1.3574	1.3908	1.3500

Annualized interest rates applicable for discounting a cash flow on June 30, 2007 at various dates during the hedge are as follows:

	01-07-2006	31-12-2006	31-05-2007	30-06-2007
USD interest rate	5.3550%	5.3670%	5.4240%	5.4030%
EUR interest rate	3.4916%	3.5100%	3.5470%	3.5170%

Extracts of Risk Management Policies for Foreign Currency Risk

Foreign Currency Risk

SC's functional currency is the USD (US Dollar). SC is exposed to foreign exchange risk because some of its purchases and sales are denominated in currencies other than USD. It is therefore exposed to the risk that movements in exchange rates will affect both its net income and financial position, as expressed in USD.

SC's foreign currency exposure arises from:

1. highly probable forecast transactions (sales/ purchases) denominated in foreign currencies
2. firm commitments denominated in foreign currencies
3. monetary items (mainly trade receivables, trade payables and borrowings) denominated in foreign currencies

SC is mainly exposed to EUR/ USD and USD/TWD (Taiwan New Dollars) risks. Transactions denominated in foreign currencies other than EUR and TWD are not material.

SC's policy is to hedge all material foreign exchange risk associated with highly probable forecast transactions, firm commitments and monetary items denominated in foreign currencies in the relevant (spot exchange rate.)

Hedging Instruments

SC uses only forward contracts to hedge foreign exchange risk. All derivatives must be entered into with counterparties with a credit rating of AA or higher.

Extracts of Effectiveness Testing Policies for Interest Rate Risk

Strategy IV: Cash Flow Hedges of Foreign Currency Exposure in Highly Probable Forecast Transactions

PROSPECTIVE EFFECTIVENESS TESTING Prospective effectiveness testing should be performed at the inception of the hedge and at each reporting date.

Prospective effectiveness testing should be performed by comparing the numerical effects of a shift in the exchange rate (for example EUR/USD rate) on the fair value of the hedged cash flows measured using a hypothetical derivative and the fair value of the hedging instrument. Consistent with SC's risk management policy, the hedged risk is defined as the risk of changes in the spot exchange rate. Changes in interest rates are excluded from the hedge relationship (for both the hedging instrument and the hedged forecast transaction) and do not affect the calculations of effectiveness.

The spot component of the forward contract alone is included in the hedge relationship (i.e. the forward points are excluded).

At least three scenarios should be assessed unless the critical terms of the hedging instrument perfectly match the critical terms of the hedged item, in which case one scenario is sufficient.

RETROSPECTIVE EFFECTIVENESS TESTING Retrospective effectiveness testing must be performed at each reporting date using the dollar offset method on a cumulative basis. A hedge is considered to be highly effective if the results of the retrospective effectiveness tests are within the range 80%–125%.

The change in the fair value of the spot component of the hedging instrument (the forward contract) is the difference between the fair value of the spot component at the inception of the hedge and the end of the testing period based on translating the foreign exchange leg of the forward contract at the current spot rate and discounting the net cash flows on the derivative using the zero coupon rates curve derived from the swap yield curve.

The change in fair value of the hedged cash flows of the hedged item (hypothetical derivative) is the difference between the value of the hypothetical derivative at the inception of the hedge, and the end of the testing period based on translating the foreign exchange leg of the hypothetical derivative at the current spot rate and discounting the net cash flows on the hypothetical derivative using the zero coupon rates curve derived from the swap yield curve.

Hedge Designation

SC's hedge documentation is as follows.

1. Risk Management Objective

In order to comply with SC's foreign exchange risk management strategy, the foreign exchange risk arising from the highly probable forecast purchase detailed in (5) below is hedged.

2. Hedging Relationship

Cash flow hedge—hedge of the foreign currency risk arising from highly probable forecast purchases.

3. Nature of Risk being Hedged

EUR/ USD spot exchange rate risk arising from a highly probable forecast purchase denominated in Euro that is expected to occur on 1 May 2007 and to be settled on 30 June 2007.

4. Hedged Item

Highly probable purchase of 2,500,000 units of raw material for EUR 4 per unit.

In the actual documentation, other details of the highly probable purchase like the rationale for the transaction to be highly probable, expected time of the transaction, etc should be specified.

5. *Hedging Instrument*

Transaction number—reference number N2424J in the treasury management system.

The hedging instrument is a forward contract to buy EUR 10,000,000 with the following characteristics:

Type	European forward contract
Amount purchased	EUR 10,000,000
Amount sold	USD 13,275,000
Forward rate	EUR 1 = USD 1.3275
Spot rate at inception	EUR 1 = USD 1.3200
Spot component of notional amount	USD 13,200,000
Start date	1 July 2006
Maturity date	30 June 2007

Hedge designation—the spot component of forward contract N2424J is designated as a hedge of the change in the present value of the cash flows on the forecast purchase that is attributable to movements in the EUR/ USD spot rate, measured as a hypothetical derivative.

6. *Effectiveness Testing*

Hedge accounting strategy IV should be applied

The hypothetical derivative that models the hedged cash flows is a forward contract to pay EUR 10,000,000 on 30 June 2007 in return for USD. The spot component of this hypothetical derivative is USD 13,200,000.

DESCRIPTION OF PROSPECTIVE TESTING Dollar offset method, being the ratio of the change in the fair value of the spot component of forward contract N2424J, divided by the change in present value of the hedged cash flows (hypothetical derivative) attributable to changes in spot EUR/ USD rate.

Frequency of testing: at inception of the hedge and then at each reporting date.

DESCRIPTION OF RETROSPECTIVE TESTING Dollar offset method, being the ratio of the change in fair value of the spot component of the forward contract, divided by the change in present value of the hedged cash flows

(hypothetical derivative) attributable to changes in spot EUR/ USD rate, on a cumulative basis.

Frequency of testing: at every reporting date.

Effectiveness Tests and Accounting Entries

1. Prospective Effectiveness Test on 1 July 2006

On 1 July 2006 the forward EUR/USD exchange rate is 1.3275. On that date, the spot EUR/USD exchange rate is 1.3200. SC's management should assess prospectively the effectiveness of the hedge.

Based on the hedge documentation, the prospective effectiveness test consists of comparing the effects of a 10% shift of the spot EUR/ USD exchange rate on both the fair value of the spot component of the hedging instrument and on the hedged cash flows (hypothetical derivative).

Hedged Item and Hedging Instrument (Spot Components)

The EUR leg of both the hypothetical derivative (hedged item) and the forward contract (hedging instrument) are translated into USD using the shifted spot exchange rate (1.452), then discounted back using the current USD interest rate (5.3850%) for a cash flow due on June 30, 2007. The USD leg is discounted back using the current USD interest rate. The difference between the present values of each leg represents the fair value of the spot component. As the fair value of this spot component is nil at inception, the change in fair value is equal to its fair value.

Hedged item-Hypothetical derivative			Forward Contract		
Notional amount	–10,000,000	EUR	Notional amount	10,000,000	EUR
Spot rate + 10%	1.4520		Spot rate + 10%	1.4520	
Translated leg	–14,520,000	USD	Translated leg	14,520,000	USD
Discount factor	0.9482	USD	Discount factor	0.9482	USD
FV of the EUR leg "A"	–13,767,864	USD	FV of EUR leg "A"	13,767,864	USD
Notional amount	13,200,000	USD	Notional amount	–13,200,000	USD
Discount factor	0.9482	USD	Discount factor	0.9482	USD
FV of the USD leg "B"	12,516,240	USD	FV of the USD leg "B"	–12,516,240	USD
FV of the hedged item (A-B)	–1,251,624	USD	FV of forward contract (A-B)	1,251,624	USD
Effectiveness = –100%					

2. Accounting Entries on 1 July 2006

Since the fair value of the forward contract is nil, no accounting entry will be passed. This is shown as follows:

Forward Contract		
Notional amount	10,000,000	EUR
Forward rate at inception	1.3275	
EURO leg translated into USD	13,275,000	USD
Discount factor	0.9482	USD
FV of the EUR leg	12,587,355	USD
Notional amount in USD	–13,275,000	USD
Discount factor	0.9482	USD
FV of the USD leg	–12,587,355	USD
FV of the derivative	0	USD

3. Retrospective Effectiveness Test on 31 December 2006

The effectiveness of a hedging relationship is to be assessed retrospectively each reporting date. Based on SC's risk management policies, the effectiveness of the hedge is assessed using the dollar offset method on a cumulative basis.

The dollar offset method consists of comparing the effects of the change in spot EUR/ USD exchange rate (from 1.32 to 1.35) on the fair value of the spot component of the hedging instrument and the hypothetical derivative (hedged cash flows).

Hedged item-Hypothetical derivative			Forward Contract		
Notional amount	–10,000,000	EUR	Notional amount	10,000,000	EUR
Spot rate at test date	1.3500		Spot rate at test date	1.3500	
Translated leg	–13,500,000	USD	Translated leg	13,500,000	USD
Discount factor	0.9741	USD	Discount factor	0.9741	USD
FV of the EUR leg "A"	–13,150,350	USD	FV of EUR leg "A"	13,150,350	USD
Spot component of notional at inception	13,200,000	USD	Spot component of notional at inception	-13,200,000	USD
Discount factor	0.9741	USD	Discount factor	0.9741	USD

(*Contd.*)

(*Contd.*)

FV of the USD leg "B"	12,858,120	USD	FV of the USD leg "B"	-12,858,120	USD
FV of the hedged item (A – B)	–292,230	USD	FV of forward contract (A – B)	292,230	USD
Effectiveness = –100%					

4. Accounting Entries on 31 December 2006

Since all the criteria for hedge accounting are met, cash flow hedge accounting can therefore be applied. The hedge is 100% effective, the change in fair value of the spot component of the hedging instrument is therefore recognized in equity. The full fair value of the hedging instrument includes the forward points. The change in fair value of forward points is recognized in the income statement.

Forward Contract		
Notional amount	10,000,000	EUR
Forward rate	1.3574	
EUR leg translated into USD	13,574,000	USD
Discount factor	0.9741	USD
FV of the EUR leg	13,222,433	USD
Notional amount in USD	–13,275,000	USD
Discount factor	0.9741	USD
FV of the USD leg	–12,931,178	USD
FV of the derivative	291,256	USD

The entry is as follows:

(in USD)	Debit	Credit
FX forward purchase a/c	291,256	
Other operating expense a/c	974	
To Cash flow hedging reserve (equity)		292,230
Being change in fair value of the forward contract recorded		

The testing and accounting entries are carried out in the same manner throughout the remaining life of the hedge relationship.

CHAPTER 11

Disclosures

11.1 SYNOPSIS

There have been significant developments in the techniques used by the entities for measuring and managing exposure to risks arising from financial instruments. In recent years new risk management concepts and approaches have gained acceptance. As a result, the users of financial statements need more information about an entity's exposure to risks and greater transparency of these, in order to make more informed judgements about risk and return. Accordingly, it was felt that there was a need to revise and enhance the disclosures in IAS 30 *Disclosures in the Financial Statements of Banks and Similar Financial Institutions* and IAS 32 *Financial Instruments: Disclosure and Presentation.* As a part of this revision, IFRS 7 Financial Instruments: Disclosures was introduced which supersedes IAS 30 and the disclosure requirements of IAS 32. The presentation requirements of IAS 32 remain unchanged. The disclosure requirements are focused on providing information that enhances a user's understanding of the impact of financial instruments on the entity's financial position, performance and cash flows.

11.2 SCOPE OF IFRS 7

IFRS 7 applies to financial and non-financial institutions. The extent of disclosure required depends upon the extent of the entity's use of financial

instruments and its exposure to risk. It applies to recognized and unrecognized financial instruments. An example of an unrecognized financial instrument is a loan commitment.

IFRS 7 is divided into two distinct sections. The first covers disclosures about the numbers in the balance sheet and the income statement. The second deals with risk disclosures. It is the second section where the new standard takes a very different approach. The risk disclosures arising from financial instruments are given '*through the eyes of management*'. The information that is provided to key management personnel is the basis for the information that is disclosed. Certain disclosures should be given to the extent they are not part of the 'through the eyes of management' disclosures.

The new disclosure requirements are applicable for annual periods beginning on or after 1 January 2007; earlier application is encouraged.

11.3 Balance Sheet Disclosures

11.3.1 Presentation of Classes of Financial Instruments

An entity is permitted to present the required disclosures either on the face of the balance sheet or in the notes to the financial statements. When the standard requires disclosure by class of financial instrument the entity must group instruments in classes that are appropriate to the nature of information disclosed and the characteristics of the instrument. A 'class' is not the same as a 'category' of financial instruments. Categories are defined in IAS 39 as financial assets at fair value through profit or loss, held-to-maturity investments, loans and receivables, available-for-sale financial assets, financial liabilities at fair value through profit or loss and financial liabilities measured at amortized cost.

Classes are expected to be determined at a lower level than the measurement categories in IAS 39 and reconciled back to the balance sheet as required by IFRS 7. However, the level of detail for a class should be determined on an entity-specific basis.

In the case of banks, the category 'loans and advances' is expected to comprise more than one class unless the loans have similar characteristics. For example, it may be appropriate to provide separate classes by:

- types of customers—for example, commercial loans and loans to individuals
- types of loans—for examples, mortgages, credit cards and unsecured loans, overdrafts

The required core balance sheet disclosures for each category of financial assets and financial liabilities in IFRS 7 include the carrying amount and related fair value, along with the amount and reason for any re-classifications between categories.

11.3.2 Loans or Receivables at Fair Value through Profit or Loss

IFRS 7 contains disclosure requirements for loans or receivables at fair value through profit or loss. These include the maximum credit exposure, the impact of credit derivatives on credit exposure and the change in the fair value of the loans or receivables and any related credit derivatives due to change in credit risk, both during the period and cumulatively since designation.

11.3.3 Financial Liabilities at Fair Value through Profit or Loss

IFRS 7 includes the requirement to disclose the amount of change in fair value of a financial liability, during the period and cumulatively, attributable to changes in credit risk of that liability and not due to changes in market conditions that give rise to market risk. Changes in market conditions that give rise to market risk include changes in benchmark interest rate, the price of another entity's financial instrument, a commodity price, forex rate, etc. Entities are required to adopt the method described in IFRS 7 unless they can demonstrate that an alternative method is a better approximation.

11.3.4 Other Balance Sheet Disclosures

11.3.4.1 De-recognition

Certain information is required to be disclosed when all or part of transferred financial assets do not qualify for de-recognition, or when there is continuing involvement.

11.3.4.2 Collateral

Collateral given—disclosure of the carrying amount is required in addition to the terms and conditions of financial assets pledged as collateral.

Collateral taken—an entity must disclose the fair value and terms and conditions of assets (financial and non-financial) received as collateral, which it has a right to sell or re-pledge in the absence of default.

11.3.4.3 Allowance Account

IFRS 7 requires the disclosure of reconciliation of the allowance account for all financial assets, which are impaired by credit losses and the entity records impairment in a separate allowance account rather than directly reducing from the carrying amount of the asset.

11.3.4.4 Compound Financial Instruments with Multiple Embedded Derivatives

Disclosure must be made of the existence of multiple embedded derivatives whose values are interdependent (e.g. callable convertible debt)

11.3.4.5 Defaults and Breaches

Disclosure is required of the details and the carrying amounts of the liabilities that are in default and re-negotiation terms of the loans payable.

11.4 Income Statement Presentation

An entity is permitted to present the required income statement disclosures on either the face of the income statement or in the notes to the financial statements.

IAS 32 only requires separate disclosure of net gains or net losses of financial instruments carried at fair value through profit or loss, whereas IFRS 7 requires the disclosure of this information for all categories of financial assets and financial liabilities.

The income statement disclosure requirements include the following:

(i) net gains or losses for each category of financial asset or financial liability

(ii) available-for-sale gains or losses recognized in equity, in addition to those amounts re-classified from equity to profit or loss

(iii) total interest income and total interest expense from financial assets and financial liabilities that are not measured at fair value through profit or loss

(iv) fee income and expense (other than the one considered for effective interest rate purposes) for financial assets and financial liabilities not measured at fair value through profit or loss

(v) fee income and expense from trust and other fiduciary activities

(vi) interest accrued on impaired financial assets

(vii) impairment losses for each category of financial asset

11.5 Other Disclosures

11.5.1 Accounting Policies

IAS 1 requires disclosure of an entity's significant accounting policies but IFRS 7 prescribes specific disclosure of certain policies relating to financial instruments. The Application Guidance to IFRS 7 provides more specific guidelines for disclosure of accounting policies. It introduces disclosure of:

(i) the criteria for designating financial assets and financial liabilities as at fair value through profit or loss

(ii) the criteria for designating financial assets as available-for-sale

(iii) the criteria for use of an allowance account (i.e. bad debt reserve), including writing off amounts charged to such an account

(iv) whether trade date or settlement date accounting is used for regular way purchase or sale of financial assets

(v) accounting policy for financial assets that are subject to re-negotiation terms

11.5.2 Hedge Accounting

Table 11.1 summarizes the hedge accounting disclosures as required by IFRS 7 for each type of hedge described in IAS 39:

Table 11.1 Hedge Accounting Disclosures Required by IFRS 7

Disclosure	Fair value hedge	Cash flow hedge	Net investment hedge
Description of hedge, financial instruments designated as hedging instruments and their fair values at reporting date and nature of risks being hedged	☺	☺	☺
When cash flows are expected to occur and when they are expected to affect the profit or loss		☺	
Forecast transactions no longer expected to occur		☺	
Amount recognized in equity and re-classifications to P&L		☺	
Gains or loss from hedging instrument and hedged risk	☺		
Ineffectiveness recognized in P&L		☺	☺

11.5.3 Fair Value

IFRS 7 retains the IAS 32 disclosures relating to the methods and significant assumptions used to determine fair value for different classes of financial assets and financial liabilities.

Required disclosures include:

(i) whether the fair value is based on quoted prices or valuation techniques

(ii) whether the fair value is based on a valuation technique that includes assumptions not supported by market prices or rates and the amount of profit recognized

(iii) the effect of reasonably possible alternative assumptions used in a valuation technique.

IAS 32 currently requires disclosure of the nature and carrying amount of financial instruments whose fair value cannot be reliably measured, including an explanation of why this is the case. IFRS 7 expands this requirement to include how the entity intends to dispose of such financial instruments.

'Day 1' profit or loss

When the market for a financial instrument is not active, an entity establishes its fair value using a valuation technique. Nevertheless, the best evidence of fair value at initial recognition is the transaction price (i.e. the fair value of the consideration given or received). It follows that there could be a difference between the fair value at initial recognition and the amount that would be determined at that date using the valuation technique. IAS 39 does not permit such a difference to be recorded when a financial instrument is initially recognized (a 'Day 1' profit or loss), unless the fair value of the instrument is based on a valuation technique where the variables include data from observable markets. IFRS 7 requires disclosure of any 'Day 1' profit or loss not recognized in the financial statements, together with the change in the amount previously deferred, plus the entity's policy for determining when the amounts deferred are recognized in profit or loss.

11.6 Risk Disclosures

Risk information is fundamentally forward-looking. Future profits, future cash flows and future valuations are intrinsically uncertain. IFRS 7 requires quantitative and qualitative disclosures about an entity's exposure to financial risk (i.e. credit risk, liquidity risk and market risk) arising from its use of financial instruments.

11.6.1 Qualitative Risk Disclosures

The standard requires the following qualitative disclosures for each type of risk:

- the exposures to the risk and how they arise
- the entity's objectives, policies and processes for managing the risk and the methods used to measure the risk
- any changes to these disclosures from the previous reporting period

11.6.2 Quantitative Risk Disclosures

The quantitative disclosures are intended to provide information regarding the extent to which an entity is exposed to risks based on the information available to key management personnel. It also requires disclosure of all risk concentrations to which an entity is exposed based on attributes like counterparty, currency, location, etc.

11.6.2.1 Credit Risk

The following disclosure is required for each **class** of financial instrument:

- the maximum credit exposure net of any impairment losses, before consideration of collateral or other credit enhancements received (e.g. netting agreements that do not qualify for offset). The maximum credit exposure for loans and receivables granted and deposits placed is the carrying amount and for derivatives is the current fair value
- description of collateral and other credit enhancements available
- information relating to the credit quality of financial assets that are neither past due nor impaired (e.g., a rating analysis)
- carrying amount of impaired or past due financial assets whose terms have been renegotiated
- age analysis of financial assets that are past due at the reporting date but not impaired, plus a description of the collateral or other credit enhancements and its estimated fair value held by the entity as security
- an analysis of individually impaired financial assets as at reporting date including the factors considered by the entity in determining impairment, plus a description of the collateral or other credit enhancements and its estimated fair value held by the entity as security

The disclosure of financial assets that are past due but not impaired may present an operational issue for many entities. Overdue information may not be readily available or it may not be captured by an entity's credit system until such time that it becomes past due by a critical period of time.

11.6.2.2 Liquidity Risk

Financial liabilities must be disclosed by contractual maturity based on

undiscounted cash flows. This will be different from the balance sheet amount as the balance sheet amount is based on discounted cash flows.

The IFRS 7 provides guidance on the treatment of financial liabilities where the counterparty has a choice of when an amount is paid (e.g. demand deposits) or when the entity is committed to making amounts available in installments (e.g. undrawn loan commitment). It states that such financial liabilities must be included on the basis of the earliest date on which the amount is to be repaid or the earliest date of draw down. One of the difficulties in preparing the maturity analysis is the treatment of derivatives, which normally involve a series of cash flows. The guidance in IFRS 7 states that net amounts should be included in the analysis for pay floating/receive fixed interest rate swaps for each contractual maturity category when only net cash flows will be exchanged. Hence, a currency swap would need to be included in the maturity analysis based on gross cash flows.

The Application Guidance of IFRS 7 suggests the time bands that may be used in preparing the contractual maturity analysis for liabilities.

It also expands the disclosure of liquidity risk to include a description of how liquidity risks are managed.

11.6.2.3 Market Risk

The standard requires the disclosure of a market risk sensitivity analysis, which includes the effect of 'a reasonably possible change' in risk variables in existence at the balance sheet if the analysis is applied to all risks in existence as at that date, along with the methods and assumptions used in preparing the analysis. Market risk is defined as the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices and includes interest rate risk, foreign currency risk and other price risk (e.g. equity and commodity risk).

The guidance in IFRS 7 states that a reasonably possible change should consider the following:

- economic environment in which the entity operates—remote or worst-case scenarios or stress tests are not included
- what changes are reasonably possible over the next reporting period
- not to re-assess what is reasonably possible change in risk variables if the rate of change of the underlying risk is stable

The entities should disclose similar sensitivities to those that would be used for internal risk management purposes. For entities outside the financial services sector, such information relating to market risk may not be readily available and compliance with the required disclosures may present a challenge.

The standard does not prescribe the format in which a sensitivity analysis should be presented, although exposures to risks from significantly different economic environments should not be combined. For example, an entity would not aggregate its exposure to market risks from areas of hyperinflation with its exposure to the same market risks from areas of very low inflation.

The standard requires disclosures of the assumptions and methods, together with the objective of the methods used in preparing the sensitivity analysis. Additionally, the reasons for any changes from the previous period in the assumptions and methods used in performing the sensitivity analysis must be disclosed.

APPENDIX A

List of Case Studies

APPENDIX B

Comparison of IFRS, US GAAP & Indian GAAP

Subject	IFRS	US GAAP	Indian GAAP
Accounting framework			
Historical cost	Uses historical cost, but intangible assets, property plant and equipment (PPE) and investment property may be revalued. Derivatives, biological assets and most securities must be fair valued.	No revaluations except some securities and derivatives at fair value.	Comparable to **IFRS**, with special rules to require/allow nominal value, present value or revaluation.

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Subject	IFRS	US GAAP	Indian GAAP
Fair presentation override	In extremely rare cases, entities should override the standards where essential to give a fair presentation. It is a requirement and not an option	Conceptually similar to **IFRS**, but not used in practice. Justification for GAAP departure found in auditing literature.	Not Allowed under Indian AS.
First-time adoption of accounting frameworks	Requires full retrospective application of all **IFRS**s effective at the reporting date for an entity's first **IFRS** financial statements.	First-time adoption of US **GAAP** requires retrospective application. In addition, particular standards specify treatment for first-time adoption of those standards.	Not applicable.
Financial statements			
Reporting currency	Requires the measurement of profit using the functional currency; however, entities may present financial statements in a different currency.	Similar to **IFRS**. SEC rules allow non-US registrants to choose a reporting currency.	In Rupees, unless there is a valid reason for using another currency.
Components of financial statements	Two years' balance sheets, income statements, cash flow statements, changes in equity and accounting policies and notes.	Similar to **IFRS**, except three years required for public companies for all statements except balance sheet.	Two years' balance sheets, income statements, cash flow statement and notes.

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Subject	IFRS	US GAAP	Indian GAAP
Balance sheet	Does not prescribe a particular format; an entity uses a liquidity presentation of assets and liabilities, instead of a current/non-current presentation, only when a liquidity presentation provides more relevant and reliable information. Certain items must be presented on the face of the balance sheet.	Entities may present either a classified or non-classified balance sheet. Items presented on the face of the balance sheet are generally presented in decreasing order of liquidity. Public companies must follow SEC guidelines regarding minimum disclosure requirements.	Does not prescribe a format. Presentation format prescribed by Schedule VI of the Companies Act.
Income statement format	Does not prescribe a standard format, although expenditure must be presented in one of two formats (function or nature). Certain items must be presented on the face of the income statement.	Present as either a single-step or multiple-step format. Expenditure must be presented by function.	Does not prescribe a format. Schedule VI of the Companies Act also does not prescribe any particular format.
Exceptional items	Does not use the term, but requires separate disclosure of items that are of such size, inci-	Disclose on the face of the income statement or in the notes.	Comparable to **IFRS**.

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Subject	IFRS	US GAAP	Indian GAAP
	dence or nature that require separate disclosure to explain the performance of the entity.	Similar to **IFRS**, but individually significant items should be presented on the face of the income statement.	
Extraordinary items	Prohibited.	Defined as being both infrequent and unusual, and are rare. Negative goodwill is presented as an extraordinary item.	The definition of extraordinary items is much broader than under **IFRS** and **US GAAP**. Extraordinary income and costs are presented separately in the income statement.
Statement of recognised gains and losses/other comprehensive income (SORIE)	Separate the statement of recognized gains and losses as either in notes or separately highlighted in primary statement of changes in shareholder equity.	Disclose total comprehensive income and accumulated other comprehensive income, either as a separate primary statement or combined with income statement, or with statement of changes in stockholders' equity.	Not required.

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Subject	IFRS	US GAAP	Indian GAAP
Statement of changes in shareholders' equity	Statement showing capital transactions with owners, the movement in accumulated profit and a reconciliation of all other components of equity. The statement must be presented as a primary statement.	Similar to **IFRS**.	Not required.
Cash flow statements—format and method	Standard headings, but limited flexibility of contents. Use direct or indirect method.	Similar headings to **IFRS**, but more specific guidance given for items included in each category. Use direct or indirect method.	Similar to IFRS.
Cash flow statements—definition of cash and cash equivalents	Cash includes overdrafts and cash equivalents with short- term maturities (less than 3 months).	Cash excludes overdrafts but includes cash equivalents with short-term maturities.	Cash includes demand deposits with banks and short-term, highly liquid, risk free cash equivalents.
Cash flow statements—exemptions	No exemptions.	Limited exemptions for certain investment entities.	Small and medium enterprises exempted.

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Subject	IFRS	US GAAP	Indian GAAP
Changes in accounting policies	Re-state comparatives and prior-year opening retained earnings.	Generally include effect in current-year income statement. Disclose pro-forma comparatives. Retrospective adjustments for specific items.	No re-statement of opening balance of retained earnings is permitted. Must be recorded in current year income.
Correction of errors	Re-state comparatives.	Similar to **IFRS**.	Include effect in current year income.
Changes in accounting estimates	Reported in income statement in the current period.	Similar to **IFRS**.	Comparable to **IFRS**.
Consolidated financial statements			
Definition of subsidiary	Based on voting, control or power to govern. The existence of currently exercisable potential voting rights also needs to be taken into consideration.	Controlling interest through majority ownership of voting shares or by contract. Also, variable interest entities (VIEs) in which a parent does not have voting control but absorbs the majority of losses or returns must also be consolidated.	A subsidiary is an enterprise controlled by another enterprise (known as parent). Control is ownership, directly or indirectly, of more than 50% of voting power of an enterprise or govern through the Board of Directors / Governing Body

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Subject	IFRS	US GAAP	Indian GAAP
			of an enterprise so as to obtain benefits from its activities.
Special purposes entities (SPEs)	Consolidate where the substance of the relationship indicates control.	SPEs must be consolidated if consolidation requirements for VIEs are met. To avoid consolidation, the SPE must be a qualifying SPE.	Not addressed.
Non-consolidation of subsidiaries	Only if the subsidiary is acquired and held for resale within one year of use. Dissimilar activities are not a justification.	Only if control does not rest with the majority owner.	Only if control is temporary because the subsidiary is acquired and held for resale in near future or if the subsidiary operates under severe long-term restrictions which significantly impair its ability to transfer funds to the parent.
Definition of associate	Based on significant influence: presumed if 20% interest or participation in entity's affairs.	Similar to **IFRS**.	Comparable to **IFRS**.

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Subject	IFRS	US GAAP	Indian GAAP
Presentation of associate results	Use equity method. Show share of post-tax result.	Similar to **IFRS**.	Use equity method. Show share of post-tax result.
Disclosures about significant associates	Give detailed information on significant associates' assets, liabilities, revenue and results.	Similar to **IFRS**.	Minimal.
Presentation of joint ventures	Both proportional consolidation and equity method permitted.	Joint ventures generally accounted for by equity method, but some industries (e.g. construction) proportional consolidation is used.	Proportional method required except in certain circumstances.
Foreign currency translation—individual companies	Translate transactions at rate on date of transaction; monetary assets/liabilities at balance sheet rate; non-monetary items at historical rate.	Similar to **IFRS**.	Comparable to **IFRS**.
Foreign entities within consolidated financial statements	Use closing rate for balance sheets; average rate for income statements. Take exchange differences to equity. Include in gain or loss on disposal of a subsidiary.	Similar to **IFRS**.	Comparable to **IFRS**.

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Subject	IFRS	US GAAP	Indian GAAP
Hyperinflation—foreign entity	Adjust local statements of foreign entity to current price levels prior to translation.	Re-measure local currency statements using the reporting currency as the functional currency.	No specific rules laid down. Companies must adopt an appropriate policy in the circumstances to ensure a true and fair view, and apply the policy consistently.
Business combinations			
Types	Virtually all are acquisitions. Uniting of interests/pooling eliminated by IFRS 3.	All business combinations are acquisitions. Pooling prohibited by FAS 141.	Similar to **IFRS**.
Purchase method—fair values on acquisition	Fair value the assets and liabilities of acquired entity. Some restructuring liabilities relating solely to the acquired entity may be recognized in fair value exercise if specific criteria about restructuring plans are met.	Similar to **IFRS**, but specific rules for acquired in-process research and development (generally expensed). Similar to IFRS, but less stringent recognition criteria regarding timing of finalization of the plan.	Use of both carrying value and fair value are permitted. No specific guidance on measurement of fair value.

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Subject	IFRS	US GAAP	Indian GAAP
Purchase method—contingent consideration	Estimated at acquisition then subsequently corrected against goodwill.	Not recognized until the contingency is resolved or the amount is determinable.	Comparable to IFRS.
Purchase method—minority interests at acquisition	Record the share at full fair value of assets and liabilities.	Generally state at share of pre-acquisition carrying value of net assets.	Not addressed.
Purchase method—goodwill and intangible assets	Capitalize but do not amortize. Goodwill should be tested for impairment annually, or more frequently if events or changes in circumstances indicate impairment.	Capitalize but do not amortize. Certain contractual and/or separable intangible assets with finite lives are required to be amortized. Goodwill and indefinite-lived intangible assets should be reviewed for impairment at least annually at the reporting unit level.	Capitalize and amortize over a period not exceeding 5 years. If period is more than 5 years, justification in the notes (but no maximum stipulated).
Purchase method—subsequent adjust-	Fair values can be corrected against goodwill up to the end of the year after acquisition, if	Similar to **IFRS**. However, allocation period is up to one year following the date of the acqui-	Not addressed.

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Subject	IFRS	US GAAP	Indian GAAP
ments to fair values	additional evidence of values becomes available. Record subsequent adjustments in income statement.	sition. Once the fair value allocation is finalized, no further changes are permitted except for the resolution of known pre-acquisition contingencies. Adjustments made during the allocation period relating to data for which management was waiting to complete the allocation are recorded against goodwill.	
	Reversals of acquisition provisions always adjust goodwill.	Similar to **IFRS** with specific exceptions.	
Purchase method—negative goodwill	Where the acquirer's interest in the fair value of the identifiable assets and liabilities exceeds the cost of the combination, the acquirer must reassess the identification and measurement of the cost of combination. Any excess remaining after that reassessment is recognized immediately in profit or loss.	Reduce proportionately the fair values assigned to non-current assets (with certain exceptions). Any excess is recognized in the income statement immediately as an extraordinary gain.	Where the amount of consideration received is less than the value of the net assets acquired, the difference should be treated as Capital Reserve (negative goodwill). Capital Reserve cannot be transferred to General Reserve.

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Subject	IFRS	US GAAP	Indian GAAP
Purchase method—disclosure	Disclosures include names and descriptions of combining entities, date of acquisition, summary of fair values of assets and liabilities acquired, and impact on results and financial position of acquirer.	Similar to **IFRS**, plus additional disclosures regarding the reasons for the acquisition, and details of allocations. Public companies must also present pro-forma income statement information as if acquisition occurred at start of comparative period.	Disclosures include names and general nature of business of combining entities, effective date of amalgamation, method of accounting and particulars of scheme sanctioned under a statute.
Uniting of interests method	Eliminated by IFRS 3.	Prohibited by FAS 141.	Allowed subject to the fulfillment of certain merger conditions.
Revenue recognition			
Revenue recognition	Based on several criteria, which require the recognition of revenue when risks and rewards have been transferred and the revenue can be measured reliably.	In principle, similar to **IFRS**. Extensive detailed guidance exists for specific transactions. No separate standard but conceptual framework offers guidance on revenue recognition.	In principle, similar to **IFRS**.

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Subject	IFRS	US GAAP	Indian GAAP
Construction contracts	Accounted for using the percentage of completion method. Completed contract method prohibited.	Percentage of completion method is preferable; however, completed contract method permitted in rare circumstances.	Similar to **IFRS**.
Expense recognition			
Interest expense	Interest expense recognized on an accrual basis. Effective yield method used to amortize non-cash finance charges.	Similar to **IFRS**.	Not addressed
Employee benefits—pension costs—defined benefit plans	Must use projected unit credit method to determine benefit obligation.	Similar to IFRS conceptually, although several differences in detail.	AS 15 (Revised 2005) - Employee Benefits; similar to IFRS.
Employee share compensation	Disclosures required but no guidance on recognition and measurement.	Two alternative methods for determining cost: intrinsic value (market price at measurement date less any employee contribution or exercise price) or fair	Not addressed.

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Subject	IFRS	US GAAP	Indian GAAP
		value at issue using option pricing model. Recognize cost of share awards or options over period of employee's performance.	
Employee benefits—other	Account for post-retirement benefits as pensions. Rules also given for termination benefits arising from redundancies and other post-employment and long-term employee benefits. Account for termination indemnity plans as pensions.	Similar to **IFRS** for post-retirement benefits. More detailed guidance given for termination benefits. Termination indemnity accounted for as pension plans and calculated as either the vested benefit obligation or the actuarial present value of the vested benefits.	AS 15 (Revised 2005)—Employee Benefits; similar to IFRS.
Assets			
Acquired intangible assets	Capitalize and amortize on a systematic basis, reflecting the pattern of use, over their estimated useful life , where finite.	Capitalize purchased intangible assets, amortize over useful life and review for impairment. Intangibles having an indefinite	Capitalize and amortize on a systematic basis over the best estimate of its useful life. It is presumed that the

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Subject	IFRS	US GAAP	Indian GAAP
	Intangibles with indefinite life or not yet available for use is not amortized, and is evaluated for impairment both annually and whenever there are indications of impairment. Revaluations are permitted.	useful life must not be amortized but reviewed for impairment annually. Revaluations are not permitted.	useful life of intangibles will not exceed 10 years from the date when asset is available for use. Revaluations are not permitted.
Internally generated intangible assets	Expense research costs as incurred. Capitalize and amortize development costs only if stringent criteria are met.	Expense both research and development costs as incurred. Some software and website development costs must be capitalized.	Comparable to **IFRS**
Property, plant and equipment	Use historical cost or revalued amounts. Frequent valuations of entire classes of assets are required when revaluation option is chosen.	Revaluations are not permitted.	Comparable to **IFRS**.
Leases—classification	It is a finance lease if substantially all risks and rewards of ownership transferred. Substance rather than form is important.	Similar to **IFRS**, but considerably more extensive form-driven requirements.	Comparable to **IFRS**.

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Subject	IFRS	US GAAP	Indian GAAP
Finance leases —lessor accounting	Record amounts due under finance leases as a receivable. Allocate gross earnings to give constant rate of return based on (pre-tax) net investment method.	Similar to **IFRS**, but specific rules for leveraged leases.	Similar to **IFRS**.
Impairment of assets	If impairment indicated, write down assets to higher of net selling price and value in use based on discounted cash flows. If no loss arises, reconsider useful lives of those assets. Reversals of losses permitted in certain circumstances.	For assets to be held and used, impairment is assessed on undiscounted cash flows. If less than carrying amount, measure impairment loss using market value or discounted cash flows. Reversals of losses prohibited. For assets held for disposal, impairment is based on lower of carrying amount and fair value less cost to sell. Assets held for disposal are not depreciated or amortised during selling period.	Comparable to **IFRS**

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Subject	IFRS	US GAAP	Indian GAAP
Capitalization of borrowing costs	Permitted, but not required, for qualifying assets.	Required.	Similar to US GAAP.
Investment property	Measure at depreciated cost or fair value and recognize changes in fair value in the income statement.	Treat the same as for other properties (depreciated cost).	Measure at depreciated cost.
Inventories	Carry at lower of cost and net realisable value. Use FIFO or weighted average method to determine cost. LIFO prohibited. Reversal is required for subsequent increase in value of previous write-downs.	Similar to **IFRS**; however, use of LIFO permitted. Reversal of write-down is prohibited.	Comparable to IFRS.
Biological assets	Measured at fair value less estimated point-of-sale costs.	Not specified. Generally historical cost used.	Not addressed.
Financial assets-measurement	Depends on classification of investment—if held-to-maturity or loans and receivables, then carry at amortised cost, otherwise at fair value. Unrealised	Similar to **IFRS**.	No comprehensive set of rules for financial instruments, although some specific guidelines are provided.

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Subject	IFRS	US GAAP	Indian GAAP
	gains/losses on trading securities recognized in the income statement and on available-for-sale investments recognized in equity.		The AS-30 similar to IFRS.
De-recognition of financial assets	De-recognize financial assets based on risks and rewards first; control is secondary test.	De-recognize based on control. Legal isolation of assets even in bankruptcy is necessary for de-recognition.	The AS-30 similar to IFRS.
Liabilities			
Provisions—general	Record the provisions relating to present obligations from past events if outflow of resources is probable and can be reliably estimated.	Similar to IFRS, with rules for specific situations (employee termination costs, environmental liabilities, loss contingencies, etc.).	Similar to IFRS.
Provisions—restructuring	Recognize restructuring provisions if detailed formal plan announced or implementation effectively begun.	Recognition of a liability based solely on commitment to a plan is prohibited. Must meet the definition of a liability, including certain criteria regarding the	Make restructuring provisions only if general recognition criteria met. Does not deal with 'constructive obligation'.

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Subject	IFRS	US GAAP	Indian GAAP
		likelihood that no changes will be made to the plan or that the plan will be withdrawn.	
Contingencies	Disclose unrecognized possible losses and probable gains.	Similar to **IFRS**.	Broadly comparable to **IFRS**.
Deferred income taxes—general approach	Use full provision method (some exceptions) driven by balance sheet temporary differences. Recognize deferred tax assets if recovery is probable.	Similar to IFRS, but recognize all deferred tax assets and then provide valuation allowance if recovery is less than 50% likely. A number of specific differences in application.	Use income statement method driven by differences between taxable income and accounting income for a period (timing differences). Recognize deferred tax assets if recovery is probable.
Deferred income taxes—main exceptions	Non-deductible goodwill and temporary differences on initial recognition of assets and liabilities that do not impact on accounting or taxable profit.	Similar to **IFRS** regarding non-deductible goodwill. Initial recognition exemption does not exist in **US GAAP**.	Not addressed.
Government grants	Recognize as deferred income and amortize. Entities may offset capital grants against asset values.	Similar to **IFRS** except long-lived asset contributions recorded as revenue.	Two broad approaches may be followed for the accounting treatment of govern-

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Subject	IFRS	US GAAP	Indian GAAP
			ment grants: the 'capital approach', under which a grant is treated as part of shareholders' funds, and the 'income approach', under which a grant is taken to income over one or more periods.
Leases—lessee accounting	Record finance leases as asset and obligation for future rentals. Normally depreciate over useful life of asset. Apportion rental payments to give constant interest rate on outstanding obligation. Generally charge operating lease rentals on straight-line basis.	Similar to **IFRS**. Specific rules must be met to record a finance or capital lease.	Comparable to **IFRS**.
Leases—lessee accounting—sale and lease-back transactions	For a finance lease, defer and amortize profit arising on sale and finance leaseback. If an operating lease arises then profit recognition depends on sale	Timing of profit and loss recognition depends on whether seller relinquishes substantially all or a minor part of the use of the asset. Immediately recog-	Similar to IFRS.

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Subject	IFRS	US GAAP	Indian GAAP
	proceeds compared to fair value of the asset. Also need to consider substance/linkage of the transactions.	nize losses. Consider specific strict criteria if a property transaction.	
Financial liabilities—classification	Classify capital instruments depending on substance of the issuer's obligations. Mandatorily redeemable preference shares are classified as liabilities.	Generally where an instrument is not a share, classify as liability when obligation to transfer economic benefit exists. Similar to **IFRS**.	Addressed in AS 31- Financial Instruments: Presentation
Convertible debt	Account for convertible debt on split basis, allocating proceeds between equity and debt separately on the balance sheet.	Convertible debt is usually recognized as a liability.	Addressed in AS 31- Financial Instruments: Presentation
De-recognition of financial liabilities	De-recognise liabilities when extinguished. The difference between the carrying amount and the amount paid is recognized in the income statement.	Similar to **IFRS**.	Addressed in AS-30 Financial Instruments—Recognition and Measurement.

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Subject	IFRS	US GAAP	Indian GAAP
Equity instruments			
Capital instruments—purchase of own shares	Show as deduction from equity.	Similar to **IFRS**.	Addressed in AS 31—Financial Instruments: Presentation
Derivatives and hedging			
Derivatives and other financial instruments—measurement of financial instruments and hedging activities	Measure derivatives and hedge instruments at fair value; recognize changes in fair value in income statement except for effective cash flow hedges, where the changes are deferred in equity until effect of the underlying transaction is recognized in the income statement. Gains/losses from hedge instruments that are used to hedge forecast transaction may be included in cost of non-financial asset/liability (basis adjustment).	Similar to **IFRS**, except no "basis adjustment" on cash flow hedges of forecast transactions.	Addressed in AS-30 Financial Instruments—Recognition and Measurement.

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(*Contd.*)

Subject	IFRS	US GAAP	Indian GAAP
Derivatives and other financial instruments—measurement of hedges of foreign entity investments	Gains/losses on hedges of foreign entity investments are recognized in equity, including hedge ineffectiveness on non-derivatives. For derivatives, record hedge ineffectiveness in the income statement. Gains/losses held in equity must be transferred to the income statement on disposal of investment.	Similar to **IFRS**, except all hedge ineffectiveness is recognized in the income statement.	Addressed in AS-30 Financial Instruments —Recognition & Measurement.
Other accounting and reporting topics			
Earnings per share—diluted	Use weighted average potential dilutive shares as denominator for diluted EPS. Use "treasury stock" method for share options/warrants.	Similar to **IFRS**.	Similar to **IFRS**.
Related party transactions —definition	Determine by level of direct or indirect control, joint control and significant influence of one	Similar to **IFRS**.	Broadly comparable to **IFRS**.

(*Contd.*)

(*Contd.*)

Subject	IFRS	US GAAP	Indian GAAP
	party over another or common control of both parties.		
Related party transactions—disclosures	Disclose name of related party and nature of relationship and types of transaction. For control relationships, give disclosures regardless of whether transactions occur. Some exemptions available for separate financial statements of subsidiaries.	Similar to **IFRS**. Exemptions are narrower than under **IFRS**.	Disclose name and relationship between the parties, nature and volume of transactions, any other necessary elements, outstanding amounts, provisions for doubtful debts and the amounts written off or written back in respect of debts due from or to related parties.

Appendix C

Glossary

Amortized cost	The amount at which a financial asset or liability is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization/accretion of any premium/discount, and minus any write down for impairment.
Call option	A contract which gives the owner the right to buy an asset for a certain price on or before a specified date.
Cap	An option contract that protects the holder from a rise in interest rates or some other underlying index beyond a certain point.
Cash flow hedge	A hedge of the exposure to variability in the cash flows of a recognized asset or liability, or forecasted transaction, which is attributable to changes in variable rates or prices.
Collar	A combination of a purchased cap and a written floor that protects against a movement outside a range of interest rates or some other underlying.

Commodity-based contract	A contract for delivery of a commodity that also allows for settlement in cash or some other financial instrument.
Compound instrument	A financial instrument that, from the issuer's perspective, includes both a liability and an equity element.
Continuing involvement	The extent to which an entity remains exposed to changes in the value of a transferred asset where the entity has neither transferred nor retained substantially all of the risks and rewards of the transferred asset.
Contract	An agreement between two or more parties which has clear economic consequences that the parties have little, if any, discretion to avoid, usually because the agreement is enforceable by law. Contracts and thus financial instruments, may take a variety of forms and need not be in writing.
Counterparty	A principal party to a transaction.
Credit risk	The risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation.
Currency risk	The risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.
Default risk	See credit risk.
De-recognition	The removal of a previously recognized financial asset or financial liability from an entity's balance sheet.
Derivative	A financial instrument or other contract whose value changes in response to the change in a specified interest rate,

	financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract (sometimes called the 'underlying'); which requires no initial investment or the initial net investment is smaller than that required for other types of contracts which would be expected to have a similar response to changes in market factors; and it is settled at a future date.
Dual currency instrument	A financial instrument where the principal and interest payments are made in different currencies. A typical example is a bond where principal payments are made in the measurement currency of the holder and interest payments are made in a foreign currency.
Effective interest rate	The rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or when appropriate, a shorter period to the net carrying amount of the financial asset or liability.
Embedded derivative	Implicit or explicit terms in a contract that affect some or all of the cash flows of a contract in a manner similar to a freestanding derivative instrument.
Entity	Includes individuals, partnerships, incorporated bodies, trusts and government agencies.
Equity instrument	Any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities.

Exercise price	The price at which an underlying instrument may be bought, sold, or settled upon exercise of an option.
Fair value	The amount at which an asset could be exchanged, or a liability settled between knowledgeable, willing parties in an arm's length transaction.
Fair value hedge	A hedge of the exposure to changes in the fair value of a recognized asset or liability or a portion thereof, or a firm commitment, that is attributable to a particular risk and that will affect reported net income.
Financial asset	Any asset that is (i) cash; (ii) an equity instrument of another entity; (iii) a contractual right to receive cash or another financial asset from another entity or to exchange financial assets/financial liabilities with another entity under conditions that are potentially favourable to the entity; or a contract that will or may be settled in the entity's own equity instruments and is a non-derivative for which the entity is or may be obliged to receive a variable number of the entity's own equity instruments; or a derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments. (For this latter purpose the entity's own equity instruments do not include instruments that are themselves contracts for the future receipt or delivery of the entity's own equity instruments).
Financial components approach	An approach whereby the recognition or de-recognition of a financial asset or

	liability is viewed in terms of its financial components which comprise that asset or liability. This approach requires that the party that controls the individual financial components should record those assets or liabilities.
Financial guarantee contract	A contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument.
Financial instrument	Any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity.
Financial liability	A liability that is a contractual obligation to deliver cash or another financial asset to another entity; or to exchange financial instruments with another entity under conditions that are potentially unfavorable to the entity; or a contract that will or may be settled in the entity's own equity instruments and is either a non-derivative for which the entity is or may be obliged to deliver a variable number of the entity's own equity instruments; or a derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments. (For this latter purpose the entity's own equity instruments do not include instruments that are themselves contracts for the future receipt or delivery of the entity's own equity instruments).

Firm commitment	A binding agreement for the exchange of a specified quantity of resources at a specified price on a specified future date or dates.
Floor	An option contract that protects the holder against a decline in interest rates or some other underlying below a certain point.
Forecast transaction	An uncommitted but anticipated future transaction. Also referred to as an anticipated future transaction.
Foreign currency	A currency other than the measurement currency of an entity.
Foreign exchange risk	The risk that changes in foreign exchange rates will affect the fair value or cash flows of a recognized financial instrument, firm commitment or forecasted transaction. Also referred to as currency risk.
Foreign operation	An entity that is a subsidiary, associate, joint venture or branch of a reporting entity, the activities of which are based or conducted in a country or currency other than those of the reporting entity.
Forward contract	A non-exchange-traded contract that obligates one party to buy, and the other party to sell a specific asset for a fixed price at a future date.
Forward rate	The foreign exchange rate used in an agreement to exchange at a specified future date a specified amount of a commodity, currency or other asset.
Functional currency	The currency of the primary economic environment in which an entity operates.
Futures contract	A forward contract that is standardized and exchange-traded.

Hedging	A strategy used in risk management whereby an entity seeks to reduce or eliminate financial risks by entering into transactions that give an offsetting risk profile. This may or may not allow an entity to use hedge accounting, whereby special accounting rules may be used if specific hedge effectiveness and other criteria are met.
Hedging instrument	A designated derivative or a designated non-derivative financial asset/liability whose fair value or cash flows are expected to offset changes in the fair value of cash flows of a designated hedged item.
Hedged item	An asset, liability, firm commitment, highly probable forecast transaction or net investment in a foreign operation that (i) exposes the entity to risk of changes in fair value or future cash flows and (ii) is designated as being hedged.
Hedge effectiveness	The degree to which changes in the fair value or cash flows of the hedged item that are attributable to a hedged risk are offset by changes in fair value or cash flows of the hedging instrument.
Held-to-maturity asset	Financial assets that have fixed or determinable payments and a fixed maturity and that an entity has the positive intent and ability to hold until maturity.
Host contract	The portion of a hybrid instrument that is the host to an embedded derivative. The host contract may be, but is not necessarily a financial instrument.
Hybrid instrument	A contract that comprises an embedded derivative component and a host contract.

IAS	International Accounting Standards, a body of accounting standards and interpretations issued by the International Accounting Standards Committee (IASC). In 2002, this became known as IFRS (see IFRS).
IASB and IFRIC	International Accounting Standards Board; International Financial Reporting Interpretations Committee. From 2002, these are the successor organizations to the IASC and SIC respectively.
IFRS	International Financial Reporting Standards, the body of accounting standards and interpretations issued or endorsed by the IASB. IFRS is an acceptable GAAP (generally accepted accounting principles) in many countries and on many stock exchanges around the world.
Impairment	A situation where the estimated recoverable amount of a financial asset has declined below its carrying amount.
Incremental costs	The costs that would not have been incurred if the entity had not acquired, issued or disposed of the financial instrument.
Interest rate risk	The risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.
In the money option	A call option whose exercise price is lower than the spot price of the underlying instrument, or a put option whose exercise price is greater than the spot price of the underlying instrument.
Intrinsic value	The positive difference between the current price of the underlying and the

	exercise price in those situations when an option is in the money. An option that is not in the money has no intrinsic value.
Lease contract	An agreement whereby the lessor conveys to the lessee in return for a payment or series of payments the right to use an asset for an agreed period of time.
Liquidity risk	The risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities.
Loans payable	Loans payable are financial liabilities, other than short-term trade payables on normal credit terms.
Market risk	The risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: currency risk, interest rate risk and other price risk.
Measurement currency	The currency used by an entity in preparing its financial statements. This is the currency of the primary economic exposure of the entity.
Monetary item	Money held and assets to be received or liabilities to be paid in fixed or determinable amounts of money.
Net investment hedge	A hedge of the exposure to changes in value of a net investment in a foreign entity arising from changes in foreign exchange rates.
Net investment in a foreign entity	A reporting entity's share in the net assets of a foreign entity.
Net position hedging	A risk management strategy whereby an entity hedges its net risk positions/ exposures.

Notional amount	An amount of currency, number of shares, a number of units of weight or volume or other units specified in a derivative contract.
Option	A contract between two parties, which gives one party the right, but not the obligation, to buy or sell an asset, currency, or rate for a specific price.
Other price risk	The risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk or currency risk), whether those changes are caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market.
Out of the money option	A call option whose exercise price is greater than the spot price of the underlying instrument, or a put option whose exercise price is lower than the spot price of the underlying instrument.
Past due	A financial asset is past due when a counterparty has failed to make payment when contractually due.
Put option	An option contract giving the holder the right, but not the obligation, to sell a specific quantity of an asset for a fixed price during a specific period of time or at a set date.
Regular way purchase or sale	A purchase or sale of a financial asset under a contract whose terms require delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned.

Risks and rewards approach	An approach whereby the recognition or de-recognition of a financial asset or liability depends upon whether the party to a transfer of financial instruments is deemed to have retained the risks in order to obtain the related benefits.
Settlement date	The date that a financial instrument is delivered to or transferred from an entity.
Spot rate	The foreign exchange rate between two currencies on a given date.
Swap	An agreement by two parties to exchange a series of cash flows in the future.
Time value	The difference between the total value i.e. fair value of an option and it's intrinsic value.
Total return swap	A contract that provides the actual returns and credit risks of a transaction to one party in return for a specified interest index to the other party. The party receiving the return based on the interest index is considered to receive a lender's return.
Trade date	The date that an entity enters into a contract for the purchase or sale of a financial instrument.
Trading assets and liabilities	A financial instrument that is acquired or incurred principally for the purpose of generating a profit from short-term fluctuations in price or dealer's margin. All derivatives are deemed to be trading instruments unless they qualify for hedge accounting. Note that this category has been subsumed within 'financial asset or financial liability at fair value through profit or loss'.

Transaction costs	Incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or liability.
Underlying	A specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, or other variables. An underlying may be a price or rate of an asset or liability, but is not the asset or liability itself.
Volatility	The degree of price fluctuation for a given asset, rate, or index.
Weather derivative	A contract that requires payment based on climatic, geological or other physical variables. These are insurance-type policies used by entities, but may or may not be directly related to an amount of loss incurred by the entity.
Written option	An option contract for which a net premium is received.
Yield curve	A figure demonstrating the relationship between interest rates and time-to-maturity.

Appendix D

IFRS Adoption Procedure in the European Union

The IAS Regulation [1] lays down the procedure for making International Financial Reporting Standards (IFRS), formerly known as International Accounting Standards (IAS), mandatory under the Community Law. Only those standards that are adopted according to this procedure are subsequently enforceable throughout the European Union.

Once a standard has been agreed, it is up to the European Union to decide whether to make that standard mandatory or not within the European Union. The decision is taken under the so-called endorsement process, which works as follows:

In accordance with the IAS Regulation, once a standard or interpretation has been adopted by the International Accounting Standard Board (IASB) and by the International Financial Reporting Interpretation Committee (IFRIC) respectively, EFRAG (the European Financial Reporting Advisory Group) assesses it technically and submits that assessment to the Commission. EFRAG is an independent private body whose task is to provide, at the Commission's request, advice on the technical soundness of new standards. It is composed of academics, analysts, auditors, industry representatives and users.

The Commission then submits its proposal to the European Parliament and the Accounting Regulatory Committee (ARC), which is composed of

representatives of Member States and chaired by the Commission. The role of the ARC is to assist the Commission in the endorsement of international accounting standards and interpretations. If there is a qualified majority of Member States in favour of the Commission's proposal in the ARC and once the opinion of the European Parliament is known, the Commission formally decides on the applicability of international accounting standards and interpretations within the European Union.

Note 1: Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002, OJ L 243, 11.09.2002.

(Website: http://europa.eu.int)

Appendix E

Hedge Documentation Template

Planet Bank

Fair Value Hedge Documentation

Hedge Reference	GCT_FV0028 (own consistent numbering)	
Hedge Description	Hedge of risk arising from Fair Value changes on bond from movement in EURO interest	
Country	Germany/Group Corporate Treasury	
Type	**Fair Value**	
Currency	**Hedged item** [1] EUR	**Hedging instrument** EUR
Overall capacity/ Available capacity	EUR 541 million	
Notional amounts	EUR 541 million 100%	EUR 541 million
Maturity	06-05-2011	06-05-2011
Hedge start date/ maturity	01-04-2006 – 06-05-2011	
Hedged risk/ matching criteria	EUR interest rate/ interest payments	EUR interest rate/ interest payments
Interest rate of Bond	5.375%	
Interest rate portion being hedged	5.375%	

(*Contd.*)

(*Contd.*)

IRS details	Receive fixed 5.375%	Pay 3 months EURIBOR + 116 bps
Transaction No. or Description; details of where the transactions are booked	ISIN XS0097105661 Booked in ABC system	Booked in XYZ system
Trader	N.P.J.	
ABC system reference		1060019
Other reference		Various

[1]Refer to Annexure 1 for details of the designation of the hedging relationship.

1. Risk Management Objective and Strategy

All fixed rate debt are swapped to floating-rate to eliminate the risk to fair value arising from changes in interest rates. The effect of these swaps are to receive fixed and pay floating.

The hedging objective is to ensure that changes to the fair value of the bond are offset by changes to the fair value of the hedging instrument arising from interest rate movements.

The risk being hedged is the potential change in fair value of the designated hedged item (the bond excluding credit spread) with respect to the benchmark EURIBOR curve.

2. Prospective Effectiveness Testing

2.1 Assessment of Effectiveness of the Hedges

PURPOSE To ensure that there is a close match between the fair value of the bond arising from interest rate movements (excluding credit risk) and the fair value of the swap.

EFFECTIVENESS TESTING TOOL The tool being used to measure effectiveness is hedge effectiveness Toolkit (HET), a PQR Co. product. A technical document issued by the vendors detailing the alternative methodologies for effective testing is held by group corporate treasury (GCT) and available for reference.

The specific rules being used by Planet Bank for effectiveness testing using HET is detailed separately. Please refer to document held by GCT.

2.2 Methodology to be Used

REGRESSION Regression analysis is the preferred method of analyzing the relationship between bond issues and the hedge in order to ascertain hedge effectiveness. Historical data is applied to predict how the two given variables will move in equal and opposite directions and this will be measured by the 'correlation' between the two.

VALUATION CURVE FOR THE UNDERLYING The yield curve to be used is the swap curve reflecting the market standard curve for the valuation of AA rated credit and derivative instruments. The underlying instrument (the bond) is required to be priced against this curve.

CLEAN PRICE V/S MARK-TO-MARKET (MTM) It should be noted that when calculating effectiveness, the clean price of both the bond and the swap should be taken, rather than using the dirty price where the accrued interest of both instruments will be included. For the swap the accrued interest of its two legs partially offset each other leading to the total accrued interest being smaller than that of the bond and will result in ineffectiveness.

Interpretation of results

The criteria for achieving hedge accounting depends on the effectiveness thresholds as follows:

Regression test: Correlation threshold 80%–100%

Slope threshold 0.80 – 1.25

3. Retrospective Effectiveness and Ineffectiveness Testing

3.1 Purpose

To ensure that there is a close match comparing the fair value of the bond (excluding credit risk) and the fair value of the swap between the last and the current effectiveness testing period.

3.2 Methodology to be Used

REGRESSION Regression analysis is the preferred method for analyzing the relationship between the bond issues and the hedge in order to ascertain retrospective hedge effectiveness. Actual data is applied to ascertain how the two given variables have moved during the given period.

VALUATION CURVE FOR THE UNDERLYING The yield curve to be used is the swap curve reflecting the market standard curve for valuation of AA rated credit and derivative instruments.

CLEAN PRICE V/S MARK-TO-MARKET (MTM) It should be noted that when calculating effectiveness, the clean price of both the bond and the swap should be taken, rather than using the dirty price where the accrued interest of both instruments will be included. For the swap the accrued interest of its two legs partially offset each other leading to the total accrued interest being smaller than that of the bond and will result in ineffectiveness.

4. Frequency of Testing

All testing—prospective and retrospective should be done on a calendar quarterly basis. Prospective testing will be performed also at the inception of hedge.

5. Conditional Clauses

There are no embedded derivatives in this transaction that affects the value of this instrument. The traded value in the market currently reflects the market expectations of interest rates and the credit quality of Planet Bank.

6. Sign-offs

Group Corporate Treasury	Product Control	Business Finance	Operations
(ABC)	(PQR)	(XYZ)	(LMN)

ANNEXURE 1

Details on the designation of the hedging instrument

Hedging Instrument

The hedging instrument consists of a series of external swaps as follows:

ABC System Ref	Notional Outstanding	Start date	Maturity	Rec Rate	Fixed Freq	Pay Index	Spread Pay Rate	Internal Counter-party 1	External Counter-party 2
1060019	541,000,000	01/04/2006	06/05/2011	5.375%	1 yr	3m EURIBOR	1.16%	PB-Trsy IRD	SCBC
Total	**541,000,000**								

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