

Financial Instruments

Fundamentals of Financial Instrument

De-recognition

Hedge Accounting

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Fundamentals

Financial assets,
liabilities and
equity instruments

Classification of
Financial Assets

Classification of
Financial Liabilities

Regular Way
Contracts

Financial assets, liabilities and equity instruments

- The definition of the financial instruments.
- The liability/equity distinction
- Compound instruments.
- Income Statement Classification
- Transaction in own **equity**

Financial Instrument

is any contract that gives rise to both:

A **financial asset** of one entity

Either a **financial liability** or an **equity instrument** of another entity.

Financial Asset

Financial Liability

- a) Cash;
- b) an equity instrument of another entity;
- c) a contractual right:
 - i. to receive cash or another financial asset from another entity; or
 - ii. to exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity; or
- d) a contract that will or may be settled in the entity's own equity instruments and is:
 - i. 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
 - ii. 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.

- a) a contractual obligation :
 - i. to deliver cash or another financial asset to another entity; or
 - ii. to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the entity; or
- b) a contract that will or may be settled in the entity's own equity instruments and is:
 - i. 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
 - ii. 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.

Equity instruments

An **equity instrument** is a contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities **and** represents a financial asset of the holder and equity of the issuer.

Classify??	
Debtors	
Bank Loans	
Investment in TFCs	
TFCs issued	
Inventory	
Prepayment	
Advances from customers	
Shares issued	
Provision for taxes	
Dividends payable	

Liability versus equity distinction

- Some financial instruments have the legal form of equity but are, in substance, liabilities. For example an issuer has a contractual obligation to either deliver cash or another financial asset.
- Under IFRS the issuer should classify the instrument, or its component parts, as a financial liability or as equity in accordance with the 'substance' of the contractual arrangement on initial recognition, and the definitions of a **financial liability** and a **equity instrument**. The classification made at the date of issue

Normally we evaluate with reference to:

- Redemption ... existence of a contractual obligation
- Return....
- Other conditions

NOTE:

a restriction on the liability of the issuer to satisfy an obligation, such as lack of access to foreign currency for foreign currency borrowings or the need to obtain approval for payment from a regulatory authority, does not negate the existence of the liability.

Contingent Settlement Provisions: It is a financial liability of the issuer unless chances of settlement in cash is remote (ingenuine conditions or liquidation)

Compound Instruments

- Some financial instruments, called compound instruments, have both a liability and an equity element.
- In this case, *IAS 32* requires the component parts to be separated from each other, with each part accounted for and presented separately according to its substance.
- To illustrate, a convertible bond contains two components.
 - One is a financial liability, the issuer's contractual obligation to pay cash (principal and interest on the bond), and
 - The other is an equity instrument, a call option written to the holder to convert the debt security into common shares.
- The separation of components is made at the time the instrument is issued and is not subsequently revised as a result of a change in interest rates, share price, or other event that changes the likelihood that the conversion option will be exercised.

Compound Instruments

Illustration

DT plc issues

- 2,000 convertible bonds at the start of 2008
- The bonds have a three-year term,
- Issued at par with a face value of €1,000 per bond.
- Interest is payable annually in arrears at 6%.
- Each bond is convertible at the holders' discretion at any time up to maturity into 250 ordinary common shares of DT plc.

The present value of bond cash flows at a **market rate** (say 10%) of interest for a similar financial instrument **without** the equity conversion option - **€1,801,052** . This is the **liability** component.

The difference between the issue proceeds, €2,000,000, and the fair value of the liability component is assigned to the **equity** component **€198,948**.

Dr. Bank	2,000,000	
Cr. Financial Liability		1,801,052
Cr. Equity		198,948

Issue Cost

- Issue (transaction) cost relating to issuance of equity is deducted from equity(32.35)
- Transaction cost relating to issuance of liability shall be deducted from liability(IFRS9, 5.1.1)
- Transaction cost on compound financial instrument will be allocated on prorata basis of initially recognized amounts.

Income Statement Classification

- Interest, dividends, losses and gains relating to a financial instrument or a component that is a financial liability shall be recognised as income or expense in profit or loss.
- Distributions to holders of an equity instrument shall be debited by the entity directly to equity, net of any related income tax benefit.

Treasury Shares

- If an entity reacquires its own equity instruments, those instruments ('treasury shares') shall be deducted from equity.
- No gain or loss shall be recognised in profit or loss on the purchase, sale, issue or cancellation of an entity's own equity instruments.
- Such treasury shares may be acquired and held by the entity or by other members of the consolidated group.
- Consideration paid or received shall be recognised directly in equity.

A little testing

- LS issues a \$100,000 note payable. The terms of the instrument are such that it will repay the loan note using its common shares to the value of \$100,000 the loan note
- The loan note is recognized as
 - a. Financial Liability
 - b. Equity
 - c. Compound Financial Instrument

Accounting issues of FA and FL

- Measurement:
 - Initial and subsequent measurement is based on the classification of FA and FL
- Recognition:
 - Additional guidelines for Regular Way Contracts
- De- recognition:
 - Detailed guidelines for de-recognition of FA and FL

Classification of Financial Assets

Under IAS 39	Under IFRS 9
FV TPL ✓ Held for trading, ✓ derivatives, (other than those qualify for hedge accounting) ✓ FV Option (irrevocable)	FVTPL -Same-
Held to maturity ✓ Intention and ability to hold, loan notes, TFCs	<u>At amortized cost</u> ✓ Business model & ✓ Contractual Cashflows (the previous HTM and LR category will now fall here)
Loans Receivables ✓ Debtors, loans to employees etc.	
AFS ✓ Residual category ✓ Irrevocable option	FV OCI Under irrevocable <u>option</u> only for investment in <u>equity</u> not <u>held for trading</u> (IFRS 9 , 5.7.5)

Classification of Financial Liabilities

Under IAS 39 & IFRS 9

At amortized cost (default category) **except**

- Financial liabilities at FVTPL(HFT, derivatives)
- Financial liabilities that arise when a transfer of a financial asset does not qualify for de-recognition
- Financial guarantee contracts
- Commitments to provide a loan at a below-market interest rate.

Measurement

Financial instrument	Measurement at recognition	Subsequent measurement	Recognition in statement of comprehensive income
Financial assets and liabilities at FVTPL	Fair value	Fair Value	Interest/dividends taken through PL Fair value gains and losses in PL
At Amortized cost: (HTM and LR)	Fair Value <u>plus</u> transaction cost	Amortised cost using the effective interest rate	Interest calculated using the effective rate in PL
FV-OCI (AFS)	Fair Value <u>plus</u> transaction cost	Fair value	Interest/dividends taken through PL FV Gains and losses as other comprehensive income. When an asset is sold (or impaired or derecognized) the cumulative gain or loss is recycled to PL
Other financial liabilities	Fair Value <u>less</u> transaction cost	Amortised cost using the effective interest rate	Interest calculated using the effective rate PL

FVTPL and FV-OCI(AFS) Comparison Illustration

Jones buys an investment for \$40 million. The transaction costs are \$1 million.. At the year end the value of the asset has risen to \$60 million. Shortly after the year end the asset is sold for \$70 million.

How should this be accounted for if the investment is classified as:

- Fair value through profit and loss**
- FV-OCI (AFS)**

FVTPL and FV-OCI Comparison Illustration

	FVTPL	AFS
Initial recognition	Dr. Investment 40m Dr. Expense 1m Cr. Bank 41m	Dr. Investment 41m Cr. Bank 41m
At year end	Dr. Investment 20m Cr. Profit & Loss 20m	Dr. Investment 19m Cr. Other Comp. Incm 19m
On Disposal	Dr. Bank 70m Cr. Investment 60m Cr. Profit & Loss 10m	Dr. Bank 70m Dr. Other Comp. Incm 19m Cr. Investment 60m Cr. Profit & Loss 29m

Subsequent measurement

Amortised cost

- Financial assets and financial liabilities are measured after initial recognition in accordance with the measurement basis that is consistent with the classification category on initial recognition (except in the case of specific requirements for hedge accounting)

Amortised cost

- Financial assets that are classified as HTM assets, or as loans and receivables, or financial liabilities that are not designated at FVTPL are measured at amortised cost. Amortised cost of a financial asset or financial liability is:
 - Initial amount recognized (cost including transaction costs)
 - **Minus** principal repayments made
 - **Plus** cumulative amortization of any difference between that initial amount and the maturity amount (accrued using the effective interest method)
 - **Minus** write down for impairment or uncollectability (directly or through the use of an allowance account)

Effective interest rate method

- The effective interest rate is the **internal rate of return (IRR)** or the level yield to maturity, i.e. the rate that exactly discounts the estimated future cash flows or receipts through the expected life of the instrument, or where appropriate, a shorter period, to the net carrying amount at initial recognition.

Effective Interest Rate and Amortized Cost-Illustration

On 1 January 20X1 James issued a deep discount bond with a \$50,000 nominal value. The discount was 16% of nominal value, and the cost of issue was \$2,000. Interest of 5% of nominal value is payable annually in arrears.

The bond must be redeemed on 1 January 20X6 (after 5 years) at a premium of \$4,611.

The effective rate of interest is 12% p.a.

Lets see how will this be reported in the financial statements of James over the period to redemption?

Firstly, we must establish at what amount the bond will be initially recognised in the statement of financial position.

<u>Net precedes</u>	\$	
Face value		50,000
Less: 16% discount		(8,000)
Less: Issue costs		<u>(2,000)</u>
Initial recognition of liability (a)		<u>40,000</u>
<u>Repayments</u>		
Capital		50,000
Premium on redemption		<u>4,611</u>
Principal to be redeemed		54,611
Interest paid:		
\$50,000 x 5% x 5 years		<u>12,500</u>
	(b)	<u>67,111</u>
Total Finance Cost (b-a)		<u>27,111</u>

Effective Interest Rate and Amortized Cost-Illustration

Secondly, we set up a table (similar to that used for compound instruments) to work out the balance of the loan at the end of each period.

Year	Op. Bal \$	(SCI-IS) Effective Intt(12%) \$	(SCF) Payments(5%) \$	(SFP) Cl. Bal (amort cost) \$
1	40,000	4,800	(2,500)	42,300
2	42,300	5,076	(2,500)	44,876
3	44,876	5,385	(2,500)	47,761
4	47,761	5,731	(2,500)	50,992
5	50,992	6,119	(2,500)	54,611
		<hr/> 27,111 <hr/>	<hr/> (12,500) <hr/>	

Recognition of FA and FL

An entity shall recognise a financial asset or a financial liability in its statement of financial position when, and only when, the entity becomes party to the contractual provisions of the instrument

When an entity first recognises a financial asset/financial liability, it shall classify it as discussed earlier and measure it accordingly.

Regular Way COntacts

- Contracts to buy or sell financial assets (for example, contracts to buy securities on an exchange) will have standard delivery terms prescribed by the exchange. For example, transactions of securities may be required by the exchange to be settled three days after the trade date – a trade taking place today must be paid for (if purchased) or delivered (if sold) three businesses days from the trade date. For example a trade executed on 11 May settles on 14 May. This kind of settlement is known as **regular way settlement**.
- The fixed price commitment between trade date and settlement date is a forward contract that meets the definition of a derivative. However, because of the short duration of the commitment, such a contract is not recognized as a derivative financial instrument under IFRS 9.

Regular Way Contracts

- The standard permits either **trade date** accounting or **settlement date** accounting for regular-way purchases or sales of a financial asset,
- ‘Trade date accounting’ and ‘settlement date accounting’ refer to methods of recognizing an asset acquired (and any associated liability incurred) and derecognizing an asset sold (and any associated receivable recognized).
- The method used must be applied **consistently for all** purchases and sales of financial assets that belong to the **same category** of financial assets, as defined in *IFRS 9*. The choice of method is an accounting policy.

Trade Date or Settlement Date- Example

Example 1: Amounts to be Recorded for a Purchase of a Financial Asset

On 29 December 2004, BeeLine commits itself to purchase a financial asset for 1,000 (including transaction costs), which is its fair value on commitment (trade) date. On 31 December 2004 (financial year-end) and on 4 January 2005 (settlement date) the fair value of the asset is 1,002 and 1,003, respectively. The amounts to be recorded for the asset will depend on how it is classified and whether trade date or settlement date accounting is used.

Trade Date Accounting

Classification of the asset	Amortised cost investments (HTM, LR)	FV-OCI (AFS)	FVTPL
29 December 20x4	Dr asset 1,000 Cr liability 1,000 <i>To recognise asset and to record payable</i>	Dr asset 1,000 Cr liability 1,000 <i>To recognise asset and to record payable</i>	Dr asset 1,000 Cr liability 1,000 <i>To recognise asset and to record payable</i>
<i>Description</i>			
31 December 20X4	-- --	Dr asset 2 Cr equity 2 <i>with the increase in FV to date</i>	Dr asset 2 Cr profit or loss 2 <i>with the increase in FV to date</i>
<i>Description</i>			
4 January 20X5	-- -- Dr liability 1,000 Cr cash 1,000 <i>with the amount contracted to pay for the asset in FV to date</i>	Dr asset 1 Cr equity 1 <i>with the increase in FV to date</i> Dr liability 1,000 Cr cash 1,000 <i>with the amount contracted to pay for the asset in FV to date</i>	Dr asset 1 Cr profit or loss 1 <i>with the increase in FV to date</i> Dr liability 1,000 Cr Cash 1,000 <i>with the amount contracted to pay for the asset in FV to date</i>
<i>Description</i>			
<i>Description</i>			

Settlement Date Accounting

Classification of the asset	Amortised cost investments (HTM, LR)	FV-OCI (AFS)	FVTPL
29 December 2004	-- --	-- --	-- --
31 December 2004	-- --	Dr receivable 2 Cr equity 2 <i>with the increase in FV to date</i>	Dr receivable 2 Cr profit or loss 2 <i>with the increase in FV to date</i>
<i>Description</i>			
4 January 2005	-- -- Dr asset 1,000 Cr cash 1,000 -- <i>with the amount contracted to pay for the asset i.e. FV of trade date</i>	Dr receivable 1 Cr equity 1 Dr asset 1,003 Cr cash 1,000 Cr receivable 3 <i>with the amount contracted to pay for the asset and changes in its FV since trade date</i>	Dr receivable 1 Cr profit or loss 1 Dr asset 1,003 Cr Cash 1,000 Cr receivable 3 <i>with the amount contracted to pay for the asset and changes in its FV since trade date</i>
<i>Description</i>			

De-recognition of Financial Asset

A **financial asset** should be derecognized if one of the following criteria occur:

- the contractual rights to the cash flows of the financial asset have expired, e.g. when an option held by the entity has expired worthless
- the financial asset has been sold and the transfer qualifies for derecognition because substantially all the risks and rewards of ownership have been transferred from the seller to the buyer.
- The analysis of where the risks and rewards of ownership lie after the transaction is critical. For example if an entity sells an investment in shares and enters into a total return swap with the buyer, the buyer will return any increases in value to the entity or the entity will pay the buyer for any decrease in value. In this case the entity has retained substantially all of the risks and rewards of the investment, which therefore should not be derecognized.

De-recognition of Financial Asset

Illustration

Bell buys an investment for trading purposes from Book. It cost \$10 million at 1 January 20X7. At 31 December 20X7, the investment had a fair value of \$30 million. On 1 June 20X8 Bell sold the investment to Candle for its market value of \$100 million.

Now lets see....

- 1. How should this be accounted for?**
- 2. Would the answer have been different if Bell's purchase contract had contained a put option giving Bell the power to sell the investment back to Book at market value on 31 December 20X8?**
- 3. Would the answer have been different if Bell's sale contract had provided Bell with a call option and Candle with a put option over the investment, each at a price of \$105 million over the next 12 months?**

De-recognition of Financial Asset

Illustration

(1) The investment bought by Bell is for trading purposes, so it will be classified as at fair value through profit and loss.

On purchase, the asset is recorded at the consideration paid:

	\$m
Dr Asset	10
Cr Cash	10

At 31 December 20X7 the asset is re-measured at \$30 million, with the uplift being recognised in profit or loss:

Dr Asset	20
Cr Profit	20

On disposal, the asset is derecognised and a gain reported

Dr Cash	100
Cr Asset (10+20)	30
Cr Profit	70

De-recognition of Financial Asset

Illustration

(2) The put option gives Bell the power to sell the asset back to Book on 31 December 20X8. But this option has not complicated things, because Bell has not exercised it but has sold the underlying asset to Candle.

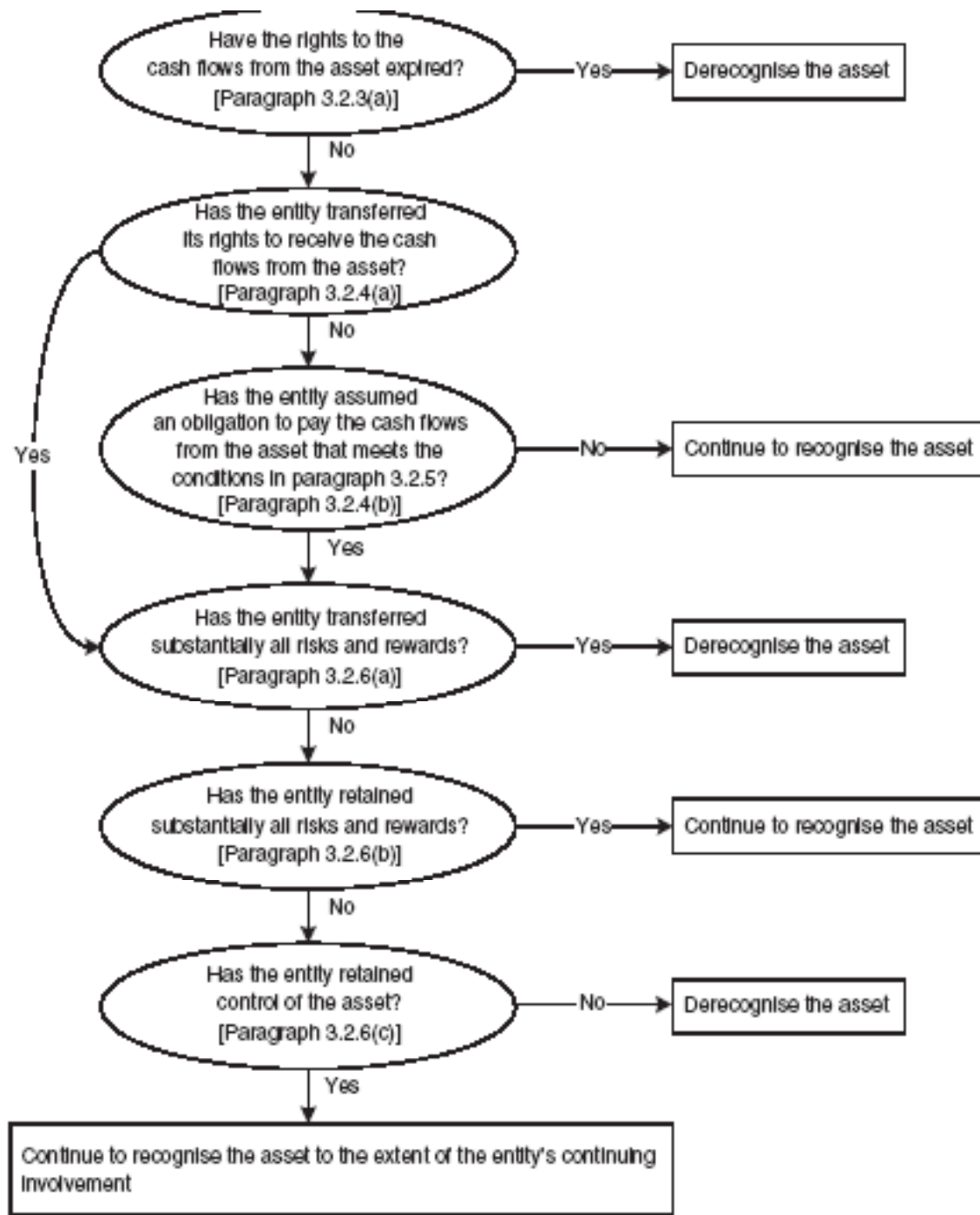
All the entries are the same as above.

(3) The effect of Bell's call option is that if the price of the underlying asset goes up, to, say, \$160 million, Bell will exercise its call option at \$105 million. The effect of Candle's put option is that if the price falls, to, say, \$60 million, Candle will put the underlying asset back to Bell at \$105 million.

The substance of Bell's sale contract is that it is a loan of \$100 million which is repayable with interest of \$5 million after one year. The risks and rewards of ownership remain with Bell, so the asset cannot be derecognised.

The third entry is different. (\$m)

Dr Cash	100
Cr Liability	100



A

De recognition of Financial Liabilities

-When to Derecognize-

Generally a financial liability is derecognized only when it is relinquished, i.e. when the obligation is:

Discharged

An obligation is discharged if an entity delivers:

- Cash
- Other financial assets
- Other goods

Which the counterparty accepts as suitable compensation.

Cancelled

Cancellation of an obligation only occurs through a process of law whereby an entity is legally released from its primary obligation to pay the creditor.

Expired

An obligation expires due to the passage of time.

Accounting of FL De-recognition

- Accounting for the extinguishment of a liability is relatively simple.
- When the liability is extinguished, recognize in profit and loss the difference between its carrying amount and the consideration paid including any:
 - Non-cash assets transferred
 - and**
 - New liabilities assumed.

Exchange or Renegotiation

- Often entities choose to modify or renegotiate their debt:
- IAS 39 draws a distinction between events that are considered to be either of the following:

Modification of the existing liability

- If a liability is modified or exchanged, but the old and new terms are not substantially different, then the fees and cost attributable to the renegotiation are rolled into the carrying value of the existing liability and amortized until maturity.

Extinguishment of the existing liability and assumption of new one

- If a liability is modified or exchanged, and the old and new terms are **substantially different**, then the modification or the exchange is accounted for as an extinguishment of the original liability.
- The new liability is initially recognized at its fair value, which results in the recognition of gain or loss if the carrying amount of the original liability differs from the fair value of the new liability. Any costs or fees incurred are recognized in profit or loss as part of the extinguishment.

Re-negotiation Illustration

PSC was facing difficulties during the year ended December 31, 2008. In October 2008, PSC commenced negotiations with the lenders for restructuring of loans.

Summary prior to restructuring on 31-Dec-08 :

	Lenders		
	SBD	JICA	AFI
Loan amount (US\$)	350,000	500,000	270,000
Remaining No. of p.a. equal installments including due on December 31, 2008	5	4	3
Interest rate	2.50%	3.00%	2.00%

Loans are appearing at the exchange rate of US\$ 1 = Rs. 65. The exchange rate as at the end of the year is US\$ 1 = Rs. 80.

Agreements with SBD and AFI were finalized and signed before year-end, however, the agreement with JICA was finalized in January 2009. Rescheduling details are:

	SBD	JICA	AFI
Revised value of loan amount (US\$)	370,000	525,000	280,000
Revised PV as per original effective interest rate (US\$)	390,000	535,000	250,000
Revised PV as per market interest rate for similar instruments (fair value) (US\$)	400,000	510,000	220,000
First installment due on	31-Dec-10	31-Dec-11	31-Dec-12

Particulars	Dr.	Cr.
Exchange loss	16,800,000	
Loan from SBD (350,000 x 15)		5,250,000
Loan from JICA (500,000 x 15)		7,500,000
Loan from AFI (270,000 x 15)		4,050,000
<i>(To record exchange loss at year end)</i>		

Loan from SBD (old)	28,000,000	
Loss on rescheduling (balancing)	4,000,000	
Loan from SBD (new) (400,000 x 80)		32,000,000
<i>(To record the de-recognition of old liability of SBD based on testing at W-1 and recording of new liability of SBD at fair value)</i>		

Deferred loss on rescheduling	800,000	
Loan from AFI (US\$ 10,000 x Rs. 80)		800,000
<i>(To record the increase in loan amount)</i>		

Hedge Accounting

Identifying Derivatives

Definition

- A derivative is a financial instrument or other contract within the scope of *IAS 39*.
 - Whose value changes in response to the change in an **underlying variable** and
 - That requires **no initial net investment** or an initial net investment that is **smaller than would be required** for other types of contracts that would be expected to have a similar response to changes in market factors **AND**
 - That is settled at a future date derivatives are held for trading financial instrument and are measured at fair value with fair value gains and losses taken to the income statement immediately unless they are designated hedging instruments in a hedging relationship.

Underlying variable

An **underlying variable** is a specific price, index, or other variable used as a reference for determining the value of a derivative contract. Changes in the underlying variable result in changes in the fair value of a derivative contract. Here are three examples of underlying variables:

Price

- If the price of corn changes, the fair value of the future sales value of a farmer's corn changes. Therefore the fair value of a futures contract to sell corn in the future at a price specified today will change whenever the price of corn changes.
- The underlying variable here is the price of corn.

Interest rate

- If market interest rates fall the fair value of a fixed rate receivable will increase. Similarly the fair value of an interest rate swap contract to swap a variable rate of interest for a fixed rate of interest will change as interest rates change.
- The underlying variable in these examples is the interest rate.

Exchange rate

- If a € functional entity has \$ borrowings and the \$ increases in value against the € then the value of the entity's borrowings and the € equivalent cost of the interest payable on its borrowings will increase. Similarly the fair value of a forward contract to exchange \$ for € at a price fixed today would change with changes in the \$/€ exchange rate.
- The underlying variable in both cases is the €/ \$ exchange rate.

Derivatives and the scope of *IAS 39*

Contracts

- Many executor contracts to buy or sell non-financial items meet the definition of the derivative, for example, a contract to buy or sell computers for a fixed price at a future date.
- Generally, contracts that require a payment based on physical variables are scoped OUT of *IAS 39*
- However a contract to buy or sell a non-financial items is within the scope of *IAS 39* if it can be settled net cash or another financial instrument, or by exchanging financial instrument, and is not entered into and continues to be for the purpose of the receipt or delivery of the non-financial item in accordance with the entity's expected purchase, sales or usage requirements.

Types of risk

Find about some common types of risk

- A farmer grows corn. The farmer is vulnerable to changes in the **price of corn** if corn prices fall as the farmer's corn grows the farmer is exposed to a fall in the potential sales value of the corn harvest.
- A commercial bank is exposed to changes in **interest rates** (the price of money). The bank has investments in debt securities with fixed rates of return (fixed rate assets). The same bank also pays variable rates of interest on the deposits of its customers (it has variable rate liabilities).

If interest rates increases the current market value of the bank's fixed rate assets will fall. Higher returns could potentially be made elsewhere on assets carrying a higher variable rate of interest. At the time the bank's variable interest rate liabilities – the interest payments it makes to its customers on their deposits will increase.

- A car dealer based in the United States imports cars from Germany, if the dealer must pay in €, the dealer is exposed to changes in the **\$/€ exchange rate**. If the € increase in value relative to the \$. The dealer will have to pay more \$ for € (and therefore for the cars).

Use of derivatives for risk management

Common examples of derivative used for different types of risk management are

- Option (call or put).. OTC or Traded
- Forwards
- Futures
- SWAPs & SWAPtion

Types-- explained

OPTIONS

- These give the holder the right, but not the obligation, to buy or sell a specific underlying asset on or before a specified future date at a specified price

FORWARDS

- The holder of a forward contract is obliged to buy or sell a defined amount of a specific underlying asset, at a specified price at a specified future date.
- For example, a forward contract for foreign currency might require £100,000 to be exchanged for \$150,000 in three months time. Both parties to the contract have both a financial asset and a financial liability.

FUTURES

- Futures contracts oblige the holder to buy or sell a standard quantity of a specific underlying item at a specified future date.
- Futures contracts are very similar to forward contracts. The difference is that futures contracts have standard terms and are traded on a financial exchange, whereas forward contracts are tailor-made and are not traded on a financial exchange

SWAPS

- Two parties agree to exchange periodic payments at specified intervals over a specified time period.
- For example, in an interest rate swap, the parties may agree to exchange fixed and floating rate interest payments calculated by reference to a notional principal amount.

Check it !!

Derivatives and risk exposure

Which derivative contracts would theoretically be used to offset risks inherent in the following item?

Match the derivative to the risk it might offset by dragging the option to the appropriate item.

COLUMN 1	COLUMN 2	ANSWER
1. A purchase contract to buy gold	a. A pay variable, receive fixed interest rate swap.	
2. Issued fixed rate debt	b. An option to buy \$ in three months' time	
3. A contract to buy a machine for \$20m in three months' time	c. A forward stating receive variable pay fixed interest rate swap	
4. A future issue of variable rate debt	d. A gold future contracts	

Embedded derivative

Definition

- IAS 39 defines an **embedded derivative** as a component of a hybrid (combined) instrument that also includes a non-derivative host contract.

An example is an investment in a convertible debt instrument which combines as interest bearing debt instrument (a non derivative), with an option on equity shares (a derivative).

Embedded Derivative

What effect does it have?

- When a derivative is embedded in a non derivative host contract, the embedded derivative causes some or all of the fair value of the contract, or the cash flows that otherwise would be required by the contract, to change based on a specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, or other variable. For example, the fair value of convertible debt is not the same as the fair value of a similar debt instrument without the embedded conversion option

How the embedded derivative is works

- Stand-alone (none embedded) derivatives are measured at fair value with fair value gains and losses taken immediately to the income statement unless they are designated as 'hedging instruments' in a hedging relationship.
- In certain cases IAS 39 also requires embedded derivatives to be separately accounted for at fair value through profit and loss.

How the embedded derivative is separately accounted for?

- The embedded derivative is fair valued first and the difference between the fair value of the hybrid contract and the fair value of the embedded derivative is assigned to the host.
- Subsequently the measurement of the host contract is determined is determined by the relevant accounting standard and classification while the embedded derivative is carried at FVTPL.

Separation Conditions

Here are the conditions that must be met if an embedded derivative is to be separated from its host contract and accounted for as stand-alone derivative.

Condition 1

- The hybrid (combined) instrument is not measured at fair value with changes in fair value reported in profit or loss. Assuming the embedded derivative must be separately accounted for, it will already be held at fair value on the balance sheet. With changes in fair value taken through the income statement. If though entire contract is already being accounted for in this way, there is no need to separate out the embedded derivative.

Condition 2

- A separate instrument with the same terms as the embedded derivative would meet the definition of a derivative.

Condition 3

- The economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract.

Imp.

- If an entity is required to separate an embedded derivative from its host contract by *IAS 39*, but is unable to measure it separately either at acquisition or subsequently, then the fair value of the embedded derivative is the difference between the fair values of the combined contract and fair value of the host contract, if determinable.
- If fair value of the host contract is not determinable, the entity must treat the entire combined contract as a financial instrument at fair value through profit or loss.

Check it!!

- A company invests in a convertible debt instrument at a cost of \$25,000. The fixed interest rate is 7% and it can be converted into ordinary shares in 10 years' time, at the company's option, or, the capital can be repaid at \$25,000. The investment is classified as available-for-sale. The fair value of the option is estimated to be \$3,250

Suggest the correct accounting treatment and pass necessary journal entries.

Financial Instruments- Hedge Accounting

1. The Basics
2. Hedged Items
3. Hedging Instruments
4. Cash Flow Hedge
5. Fair Value Hedge
6. Hedges of net investment in foreign operations

The Basics

- Hedge accounting is a method of presentation that may be voluntarily applied to hedging transaction.
- Companies often enter into a hedging transactions to reduce their risk exposure. Hedging transaction neutralize or reduce the variability in fair value or cash flows that arise from the risks.
- The objective of Hedge Accounting is to ensure consistent timing of recognition of gains or losses in the profit or loss on the hedging instrument and on the hedge item.
- In other words hedge accounting achieves "matching" in the timing of recognition of gains or losses in the profit or loss.

Risk Exposures

SE plc,

- A GBP functional company, has a firm commitment in six month's time to purchase an item of machinery for a fixed amount in US \$.
- **The Risk**
- SE has a foreign exchange exposure to the US \$. The cost to SE in GBP of the future US \$ purchase will vary with the US \$/GBP exchange rate

HB PLC

- HB plc has variable rate debt (LIBOR +2%)
- **The Risk**
- HB is exposed to variability in its cash outflows on its future payments, which will vary with LIBOR interest rate index.

LR PLC

- LR plc has an equity investment in WV plc.
- **The Risk**
- LR has a price or fair value exposure on its equity investment in WV plc. LR's ability to generate returns on its investment in WV on a future sale will vary with the market price for WV plc.

Reducing Risk Exposure

SE plc

- SE enters into a **forward contract** to buy US \$ for the same amount and same maturity as its firm commitment to purchase an item of machinery in US \$.

HB plc

- HB enters into a pay fixed, receive floating **interest rate swap** with the same nominal amount as its variable rate loan and indexed to the same index (LIBOR) and with the same maturity as its loan.

LR plc

- LR purchases a **put option** to sell its investment in Worthy Venture at a specified price at a specified future date.

Lack of offset

- The financial instruments that SE , HB and LR entered into hedge their risk exposures are derivatives.
- Under IAS39 all derivatives must be recognized in the balance sheet at fair value.
- However, often the items that the companies hedge are either not yet recorded on the balance sheet or are recorded, but not measured at fair value.
- There is a **mismatch** in the timing of recognition of the gains and losses in profit and loss.
- This is where hedge accounting comes in.

Achieving Offset

- Companies can employ hedge accounting to achieve offset in profit or loss.
 - There are three principal methods or types of hedge accounting, which achieve offset in different ways.
- 1. Cash Flow Hedge Accounting** recognizes changes in the fair value of the hedging instrument outside profit or loss in equity and `recycle` them into the income statement when the hedged item affects profit or loss.
This is known as a cash flow hedge because it is the exposure to the variability in future cash flows that is being hedged.
 - 2. Fair Value Hedge Accounting** adjusts the recognized asset or liability that is being hedged for movements in the hedged risk so as to offset in profit and loss changes in the fair value of the hedging instrument.
This is referred to as a fair value hedge because it is the fair value of the designed risk that is being hedged.
 - 3. Net Investment Hedges (otherwise known as hedging a net investment in a foreign operation)**
A third and final category of hedge accounting is **hedging a net investment** in a foreign operation. This is accounted for similarly to a cash flow hedge.

The Requirements of Hedge Accounting

There are two principal requirements that have to be met to achieve hedge accounting.

Hedge Effectiveness

- One of the criteria that must be met for an economic hedge to qualify for hedge accounting is that it is highly effective. A hedge is highly effective if the changes in the fair value or cash flows of the hedged item attributable to the hedged risk, for example, due to changes in interest rates or foreign exchange rates – are offset by the changes in fair value or cash flows of the hedging instrument within a range of 80-125%.

Formal Designation

- IAS 39 only allows an entity to apply hedge accounting if it specifically designates the hedging instrument and the hedged item from the point in time when it wants to commence applying hedge accounting. There are strict criteria that must be met for each hedge accounting relationship to qualify for hedge accounting.
 - **Consistent with the company's risk management strategy**
 - **Prospective Effectiveness**
 - **Retrospective Effectiveness**
 - **Measurable, with ineffectiveness quantified and recognized in profit or loss**

Hedging Portion

It is possible to designate only a portion of either the cash flows or fair value of a financial instrument as the hedged item.

Let's take the example of a five year 6% fixed rate loan asset, which has not been classified as HTM.

1. Hedge the full fair value of the cash flows on the loan, in other words, all the contractual cash flows.
2. Hedge the fair value on a proportion of the loan – for example, the fair value of 50% of loan- a proportion of all the contractual cash flows.
3. Hedge the fair value on all cash flows due to the impact of a specific risk only – for example, interest rate risk (rather than all risks)
4. Hedge part of the cash flows due to a specific risk – for example, designate the impact of movements in interest rates on 50% of the cash flows (a hedge of a specific risk on a proportion of all cash flows).
5. Hedge the fair value movement on the principal only (a hedge of a portion of the cash flows).
6. Hedge the fair value movement due to interest rate risk (and not all risk) on the principal only.

Firm commitments and forecast transactions

What's the difference?

- Forecast transactions are always cash flow hedged, whereas firm commitments are generally fair value hedged.

A **firm commitment** is a binding agreement for the exchange of a specified quantity of resources at a specified price on a specified future date or dates.

An example is a legally binding purchase agreement to take delivery of 100,000 bushels of corn on 30 September 2007 for \$ 20 per bushel.

A commitment is binding if it is enforceable either legally or otherwise. To be enforceable, the agreement should provide for remedies that are available to the parties to the contract in the event of non-performance.

Firm commitments and forecast transactions

A **forecast transactions** is an uncommitted but anticipated future transaction.

For example, a forecast purchase of 100,000 bushels of corn to be used in an entity's manufacturing process in October. The forecast is identified in May.

An Exception

- If an entity is hedging the foreign exchange risk in a firm commitment, this may be accounted for either as a fair value or a cash flow hedge.

Hedging Instrument

- A hedging instrument is normally a derivative. But for a hedge of the risk of changes in foreign currency exchange rates only, a hedging instrument can be a non-derivative financial asset or a non-derivative financial liability, whose fair value or cash flows are expected to offset changes in the fair value or cash flows of a designated hedged item so that the hedged item is effectively hedged.

Cash Flow Hedge

- A company trades in GBP. It expects to purchase a piece of plant for 1 million euros in one year from 1 May 20X6. In order to offset the risk of increases in the euro rate, the company enters into a forward contract to purchase 1 million euros in 1 year for a fixed amount (GBP 650,000). The forward contract is designated as a cash flow hedge. At inception, the forward contract has a fair value of zero.

At the year-end of 31 October 20X6, the euro has appreciated and the value of 1 million euros is GBP 660,000. The machine will still cost 1 million euros so the company concludes that the hedge is 100% effective. Thus the entire change in the fair value of the hedging instrument is recognised directly in reserves.

Dr Forward contract	GBP. 10,000
Cr Reserves	GBP 10,000

Cash Flow Hedge

The forward contract is settled with no further change in the exchange rate:

Dr Cash	GBP 10,000
Cr Forward contract	GBP 10,000

The company purchases the machine for 1 million euros and makes the following journal entry:

Dr Machine	GBP. 660,000
Cr Accounts Payable	RGBP. 660,000

The deferred gain or loss of GBP. 10,000 should either remain in reserves and be released from equity as the machine depreciates, or be deducted from the initial carrying amount of the machine.

Fair Value Hedge- An example

A company purchases an equity instrument for \$. 1 million. The instrument is not held for trading and company designated it to be measured at fair value with changes to be recognised through other comprehensive income.

The company is exposed to a price risk of the decline in the fair value of the instrument if the market behavior changes..

The company purchases put options in order to offset the risk of a decline in fair value.

Any decline in the fair value of the instrument should be offset by opposite increases in the fair value of the derivative instrument.

Assuming market prices of shares fall to \$ 960,000. The instrument is classified as FV changes in OCI therefore the decrease in fair value would normally be recorded directly in reserves.

However, since the instrument is a hedged item in a fair value hedge, this change in fair value of the instrument will be recognised in profit or loss, if hedge is effective.

Fair Value Hedge

Dr Income statement	\$. 40,000
Cr Investment in Equity	\$. 40,000

At the same time, the company determines that the fair value of the put options has increased by \$. 40,000. Since the swap is a derivative, it is measured at fair value with changes in fair value recognised in profit or loss.

The changes in fair value of the hedged item and the hedging instrument exactly offset each other: the hedge is 100% effective and the net effect on profit or loss is zero.

Disclosures

IFRS 7 Financial Instruments: Disclosures

- **IFRS 7 Financial instruments: disclosures** provides the disclosure requirements for financial instruments. A summary of the requirements is detailed below.
- The two main categories of disclosures required are:
 1. information about the significance of financial instruments.
 2. Information about the nature and extent of risks arising from financial instruments.
The disclosures made should be made by each class of financial instrument

Overview of Disclosure Requirements

Significance of financial instruments

- An entity must disclose the **significance** of financial instruments for their financial position and performance. The disclosures must be made for each class of financial instruments.
- An entity must disclose items of income, expense, gains, and losses, with separate disclosure of gains and losses from each class of financial instrument.

Nature and extent of risks arising from financial instruments

Qualitative disclosures

The qualitative disclosures describe:

- risk exposures for each type of financial instrument
- management's objectives, policies, and processes for managing those risks
- changes from the prior period

Quantitative disclosures

The quantitative disclosures provide information about the extent to which the entity is exposed to risk, based on information provided internally to the entity's key management personnel. These disclosures include:

- summary quantitative data about exposure to each risk at the reporting date
- disclosures about credit risk, liquidity risk, and market risk as further described below
- concentrations of risk.

Types of Risks

Market risk

This refers to the possibility that the value of an asset (or burden of a liability) might go up or down. Market risk includes three types of risk: currency risk, interest rate risk and price risk.

- **Currency risk** is the risk that the value of a financial instrument will fluctuate because of changes in foreign exchange rates.
- Fair value **interest rate risk** is the risk that the value of a financial instrument will fluctuate due to changes in market interest rates. This is a common problem with fixed interest rate bonds. The price of these bonds goes up and down as interest rates go down and up.
- **Price risk.** This refers to other factors affecting price changes. These can be specific to the enterprise (bad financial results will cause a share price to fall), relate to the sector as a whole (all Tech-Stocks boomed in the late nineties, and crashed in the new century) or relate to the type of security (bonds do well when shares are doing badly, and vice versa).

Market risk embodies not only the potential for a loss to be made but also for a gain to be made.

Credit risk

The risk that one party to a financial instrument fails to discharge its obligations, causing a financial loss to the other party. For example, a bank is exposed to credit risk on its loans, because a borrower might default on its loan.

Liquidity risk

This is also referred to as funding risk. This is the risk that an enterprise will be unable to meet its commitments on its financial instruments. For example, a business may be unable to repay its loans when they fall due.

Cash flow interest rate risk

- This is the risk that future cash flows associated with a monetary financial instrument will fluctuate in amount due to changes in market interest rates. For example, the cash paid (or received) on floating rate loans will fluctuate in line with market interest rates.