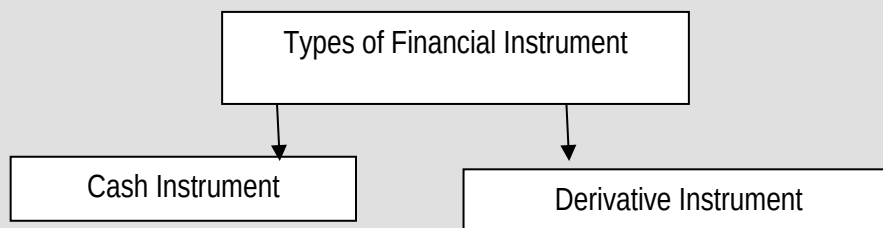


ACCOUNTING AND REPORTING OF FINANCIAL INSTRUMENTS

BASIC CONCEPTS

Financial Instrument is contract that may give rise to financial asset of one entity and a financial liability of another entity.



There are four categories of Financial Assets and two categories of Financial Liabilities. Their recognition, measurement, presentation and disclosure in financial Statements depend upon the classification of Financial Assets and Liabilities.

CATEGORIES OF FINANCIAL ASSETS

The four categories are:

- a) Financial Assets at fair Value through Profit and Loss-it has two sub categories-financial assets held for trading and those designated to the category at inception
- b) Held to maturity investments
- c) Loans & Recievable
- c) Available for sale

Held for trading: A financial asset or financial liability is classified as held for trading if it is:

- (i) acquired or incurred principally for the purpose of selling or repurchasing it in the near term; or
- (ii) 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;

- (iii) a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

For example- Hemakshi Ltd intends to sell the loan in the near term to Sona Ltd at 9% yield. The loan clause allows the initiator to sell the loan to a third party.

Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturity that an entity has the positive intention and ability to hold to maturity other than:

- (a) those that the entity upon initial recognition designates as at fair value through profit or loss;
- (b) those that meet the definition of loans and receivables; and
- (c) those that the entity designates as available for sale.

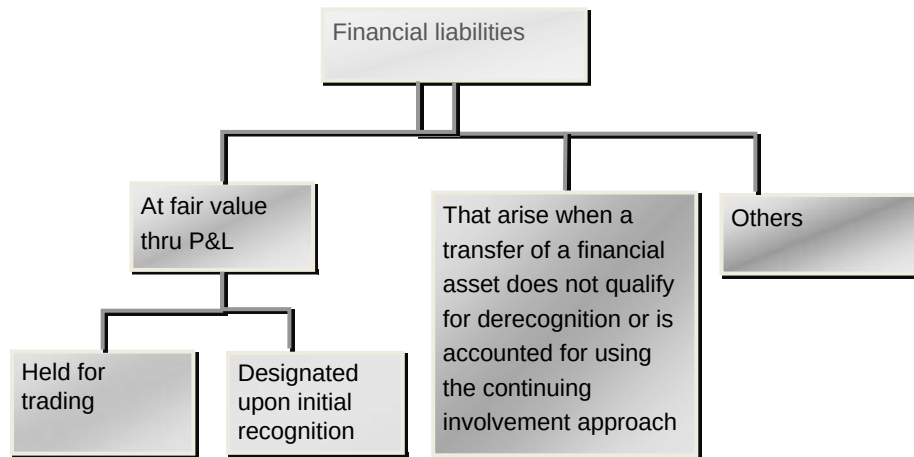
For Example- Sona Ltd has medium term deposits amounting to 300000 with HDFC bank and they will mature in three years. Sona Ltd intends to hold them till maturity. These will be classified as maturity investments. However if after Two years, Sona Ltd with draws 2,00,000 from the deposits, then balance will have to be reclassified as Financial Assets held for sale.

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market, other than: (a) those that the entity intends to sell immediately or in the near term, which should be classified as held for trading, and those that the entity upon initial recognition designates as at fair value through profit or loss; (b) those that the entity upon initial recognition designates as available for sale; or (c) those for which the holder may not recover substantially all of its initial investment, other than because of credit deterioration, which should be classified as available for sale.

Available-for-sale financial assets are those non-derivative financial assets that are designated as available for sale or are not classified as

- (a) loans and receivables,
- (b) held-to-maturity investments, or
- (c) Financial assets at fair value through profit or loss.

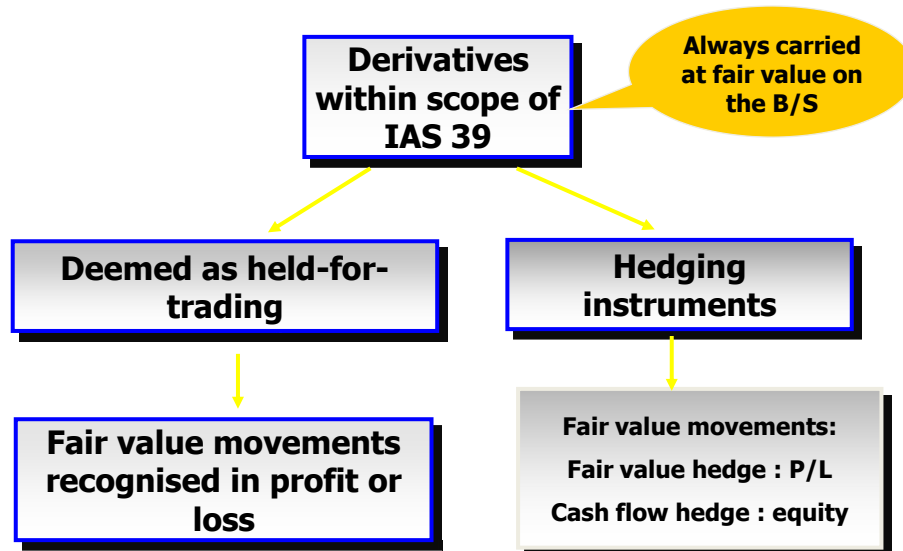
Classification: Financial Liabilities



Derivatives

Derivatives are financial instruments that drive their value from changes in benchmark based on stock prices, interest rates, mortgage rates, currency rates, commodity prices or some other agreed upon base. It 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 it is settled at a future date.

Classification of Derivatives



2

Hedge Accounting

For hedge accounting purposes, only instruments that involve a party external to the reporting entity (i.e., external to the group, segment or individual entity that is being reported on) can be designated as hedging instruments. There is normally a single fair value measure for a hedging instrument in its entirety

Hedging relationships are of three types:

- (a) fair value hedge: a hedge of the exposure to changes in fair value of a recognised asset or liability or an unrecognised firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect profit or loss.
- (b) cash flow hedge: a hedge of the exposure to variability in cash flows that (i) is attributable to a particular risk associated with a recognised asset or liability (such as all or some future interest payments on variable rate debt) or a highly probable forecast transaction and (ii) could affect profit or loss.
- (c) hedge of a net investment in a foreign operation as defined in AS 11.

Forwards and Options

A forward contract is basically a contractual arrangement in which one party buys and other party sells designated currency at a forward rate mutually agreed upon on the date of contract

for delivery at designated future date. The difference between the forward rate and the exchange rate at the date of transaction should be recognised as income or expense over the life of the contract, except in respect of liabilities incurred for acquiring fixed assets, in which case, such difference should be adjusted in carrying amount of the respective fixed assets.

Embedded Derivatives

An embedded derivative is a component of a hybrid instrument that combines the derivative and a non-derivative host contract – with the effect that some of the cash flows of the combined instrument vary in a way similar to stand-alone derivative.

Question 1

- (a) *Explain currency options related to foreign exchange.*
- (b) *Write short note on Interest Rate Swaps.*

Answer

- (a) Currency Options give the client the right, but not the obligation, to buy/sell a specific amount of currency at a specific price on a specific date. Currency options provide a tool for hedging foreign exchange risk arising out of the firm's operations. Currency options enable the business house to remove downside risk without limiting the upside potential. Options can be put option or call option. A put option is a contract that specifies the currency that the holder has the right to sell. A call option is a contract that specifies the currency that the holder has the right to buy.
- (b) Interest rate swap can be defined as a financial contract between two parties (called counter parties) to exchange on a particular date in the future, one series of cash flows (fixed interest) for another series of cash flows (variable or floating interest) in the same currency on the same principal (an agreed amount called notional principal) for an agreed period of time. The contract will specify the interest rates, the benchmark rate to be followed, the notional principal amount for the transaction, etc. Interest rates are of two types, fixed interest rates and floating rates which vary according to changes in a standard benchmark interest rate. An investor holding a security which pays a floating interest rate is exposed to interest rate risk. The investor can manage this risk by entering into an interest rate swap.

Question 2

ABC Ltd. grants a loan of Rs. 10 crore for five years, to XYZ at a fixed rate of 8% payable half yearly. XYZ Ltd. in turn grants, independently a separate loan of equal amount and equal period at a floating rate, to ABC Ltd. The arrangement envisages payment of interest on net basis. The chief accountant of ABC Ltd. says that the loan is not a derivative instrument. Comment if it is a derivative.

Financial Reporting

Answer

Yes. The contract should be considered as a derivative, since in substance, it is a fixed-to-floating rate swap.

Question 3

On 1 April, 2010 Omega Ltd. issued Rs.10,00,000, 6 % convertible debentures of face value of Rs. 100 per debenture at par. The debentures are redeemable at a premium of 10% on 31.03.12 or these may be converted into ordinary shares at the option of the holder, the interest rate for equivalent debentures without conversion rights would have been 10%.

The present value of Re. 1 receivable at the end of the end of each year based on discount rates of 6% and 10% can be taken as:

	6%	10%
End of year 1	0.94	0.91
2	0.89	0.83
3	0.84	0.75
4	0.79	0.68

Being compound financial instrument, you are required to calculate the debt portion of the debentures as on 01.04.10.

Answer

Computation of Debt Component of Convertible Debentures as on 1.4.2010

	Rs.
Present value of the principal repayable after four years [10,00,000 × 1.10 × 0.68 (10% Discount factor)]	7,48,000
Present value of Interest [60,000 × 3.17 (4 years cumulative 10% discount factor)]	1,90,200
Value of debt component	938,200

Question 4

Comforts Ltd. granted Rs.10,00,000 loan to its employees on January 1, 2009 at a concessional interest rate of 4% per annum. Loan is to be repaid in five equal annual instalments along with interest. Market rate of interest for such loan is 10% per annum. Following the principles of recognition and measurement as laid down in AS 30 'Financial Instruments : Recognition and Measurement', record the entries for the year ended 31st December, 2009 for the loan transaction, and also calculate the value of loan initially to be

Accounting and Reporting of Financial Instruments

recognised and amortised cost for all the subsequent years. The present value of Re.1 receivable at the end of each year based on discount factor of 10% can be taken as:

Year end	1	0.9090
	2	0.8263
	3	0.7512
	4	0.6829
	5	0.6208

Answer

- (i) **Journal Entries in the books of Comfort Ltd.
for the year ended 31st December, 2009 (regarding loan to employees)**

		Dr. (Rs.)	Cr. (Rs.)
Staff loan A/c Dr. To Bank A/c (Being the disbursement of loans to staff)		10,00,000	10,00,000
Staff cost A/c (10,00,000 – 8,54,763) Dr. [Refer part (ii)] To Staff loan A/c (Being the write off of excess of loan balance over present value thereof, in order to reflect the loan at its present value of Rs. 8,54,763)		1,45,237	1,45,237
Staff loan A/c Dr. To Interest on staff loan A/c (Being the charge of interest @ market rate of 10% to the loan)		85,476	85,476
Bank A/c Dr. To Staff loan A/c (Being the repayment of first instalment with interest for the year)		2,40,000	2,40,000
Interest on staff loan A/c Dr. To Profit and loss A/c (Being transfer of balance in staff loan Interest account to profit and loss account)		85,476	85,476

Financial Reporting

Profit and loss A/c	Dr.	1,45,237	
To Staff cost A/c			1,45,237
(Being transfer of balance in staff cost account to profit and loss account)			

(ii) Calculation of initial recognition amount of loan to employees

Year end	Cash Inflow		Total Rs.	P.V. factor	Present value Rs.
	Principal	Interest @ 4%			
	Rs.	Rs.			
2009	2,00,000	40,000	2,40,000	0.9090	2,18,160
2010	2,00,000	32,000	2,32,000	0.8263	1,91,702
2011	2,00,000	24,000	2,24,000	0.7512	1,68,269
2012	2,00,000	16,000	2,16,000	0.6829	1,47,506
2013	2,00,000	8,000	2,08,000	0.6208	<u>1,29,126</u>
Present value or Fair value					<u>8,54,763</u>

(iii) Calculation of amortised cost of loan to employees

Year	Amortised cost (Opening balance) [1]	Interest to be recognised@10% [2]	Repayment (including interest) [3]	Amortised Cost (Closing balance) [4]=[1]+ [2] – [3]
	Rs.	Rs.	Rs.	Rs.
2009	8,54,763	85,476	2,40,000	7,00,239
2010	7,00,239	70,024	2,32,000	5,38,263
2011	5,38,263	53,826	2,24,000	3,68,089
2012	3,68,089	36,809	2,16,000	1,88,898
2013	1,88,898	19,102 (Bal. fig.)*	2,08,000	Nil

Question 5

Identify the host and embedded derivative in the case when A Co. holds a debenture bond in B Co. which is convertible into ordinary shares of entity B at the option of entity A.

* The difference of Rs. 212 (Rs. 19,102 - Rs. 18,890) is due to approximation in computations.

Answer

The debenture bond is the host contract. The option to convert to shares is the embedded derivative.

Question 6

In the following derivative contracts, identify the underlying variable:

- (a) Interest Rate Swap
- (b) Currency Swap (Foreign Exchange Swap)
- (c) Commodity Swap
- (d) Equity Swap
- (e) Credit Swap

Answer

<i>Type of Contract</i>	<i>Main Pricing-Settlement Variable (Underlying Variable)</i>
a. Interest Rate Swap	Interest rates
b. Currency Swap (Foreign Exchange Swap)	Currency rates
c. Commodity Swap	Commodity prices
d. Equity Swap	Equity prices (equity of another entity)
e. Credit Swap	Credit rating, credit index or credit price

Question 7

X Ltd. purchases 1000 6% Rs. 100 Debentures of ABC Ltd. for Rs. 99 redeemable at Rs. 102 after 5 years. These debentures are unquoted. Can the holder classify the financial asset (Investment redeemable preference shares) as loans and receivables?

Answer

Yes. The holder has, of course, the choice to classify them as available for sale.

Question 8

ABC bank has a deposit with other banks which are negotiable but the depositor has not negotiated these deposit documents. How will you categorize this deposit as a financial asset?

Answer

It should be loans and receivables. In case the entity has the intention to sell the instrument in the near term, it should be classified as held for trading.

Question 9

Should the embedded derivative, which is an option, be valued at zero at initial recognition?

Answer

Unlike the embedded derivative which is a non-option, it can have non-zero fair value at initial recognition. For the option-based derivatives like call, put, cap etc. critical factor of the fair value determination is strike price. To make the fair value of the option zero, the strike price should be deep out of the money. So there is almost zero probability that the option will be exercised. This assumption will be inconsistent with the feature of embedded derivative wherein probability of exercising the option is not zero.

EXERCISES

Question 1

What are derivatives and what are its characteristics?

Question 2

Write short note on Forward Contract.

Question 3

For determining whether or not an interest rate swap is a derivative contract, would it be necessary to consider the aspect of whether the parties pay interest payments to each other (gross) or settle on a net basis?

[Answer: No. The definition of a derivative does not depend on whether or not the settlement is on net or gross basis.]

Question 4

Alpha Co. has a bond asset with interest payments indexed to the price of gold. The bond has a fixed payment at maturity and a fixed maturity date. Whether there is an embedded derivative in the bond? If yes, identify the host contract and the derivative.

[Answer: Yes, there is an embedded derivative. Interest payments contain an embedded derivative (indexation to gold) that is separated and accounted for as derivative at fair value. Once the embedded derivative is separated, the host debt instrument can be classified as held-to-maturity provided Company G has the positive intention and ability to hold the bond till maturity.]

Question 5

Is gold bullion a financial instrument (like cash) or is it a commodity?

[Answer: It is a commodity. Although bullion is highly liquid, there is no contractual right to receive cash or another financial asset inherent in bullion.]

Question 6

In the following derivative contracts, identify the underlying variable:

- (i) Currency Futures
- (ii) Commodity Futures
- (iii) Interest Rate Forward Linked to Government Debt
- (iv) Currency Forward
- (v) Commodity Forward

Financial Reporting

[Answer:

Currency Futures

Currency Rates

Commodity Futures

Commodity price

Interest Rate Forward Linked to Government Debt

Interest rates

Currency Forward

Currency rate

Commodity Forward

Commodity prices

Question 7

Hena Limited issued 1 million 10.5% 10 year callable convertible bond at RS 1000 .Straight bonds (NCD) of similar maturity would carry 12% coupon. Each bond may be converted any time into 40 equity shares of Hena Limited. How will Hena Ltd present the bond issue in Balance Sheet?

[Answer: -B/S(on the year of Issue); Equity-84.75 million; Financial Liability(Loan) -915.25 million]

Question 8

ABC purchases a five year debt instrument issued by XYZ with the principal amount of RS 5 million that is indexed to Nifty. At maturity, ABC will receive from XYZ the principal amount plus or minus the change in the value of Nifty times 100.The current Nifty Value is 3250.No separate interest payment are made by XYZ. The purchase price is Rs 5 million.ABC classified the debt instrument as available fro sale. It is embedded derivative?

[Answer: Yes]