UNIT 3:
INDIAN ACCOUNTING STANDARD 113: FAIR VALUE MEASUREMENT

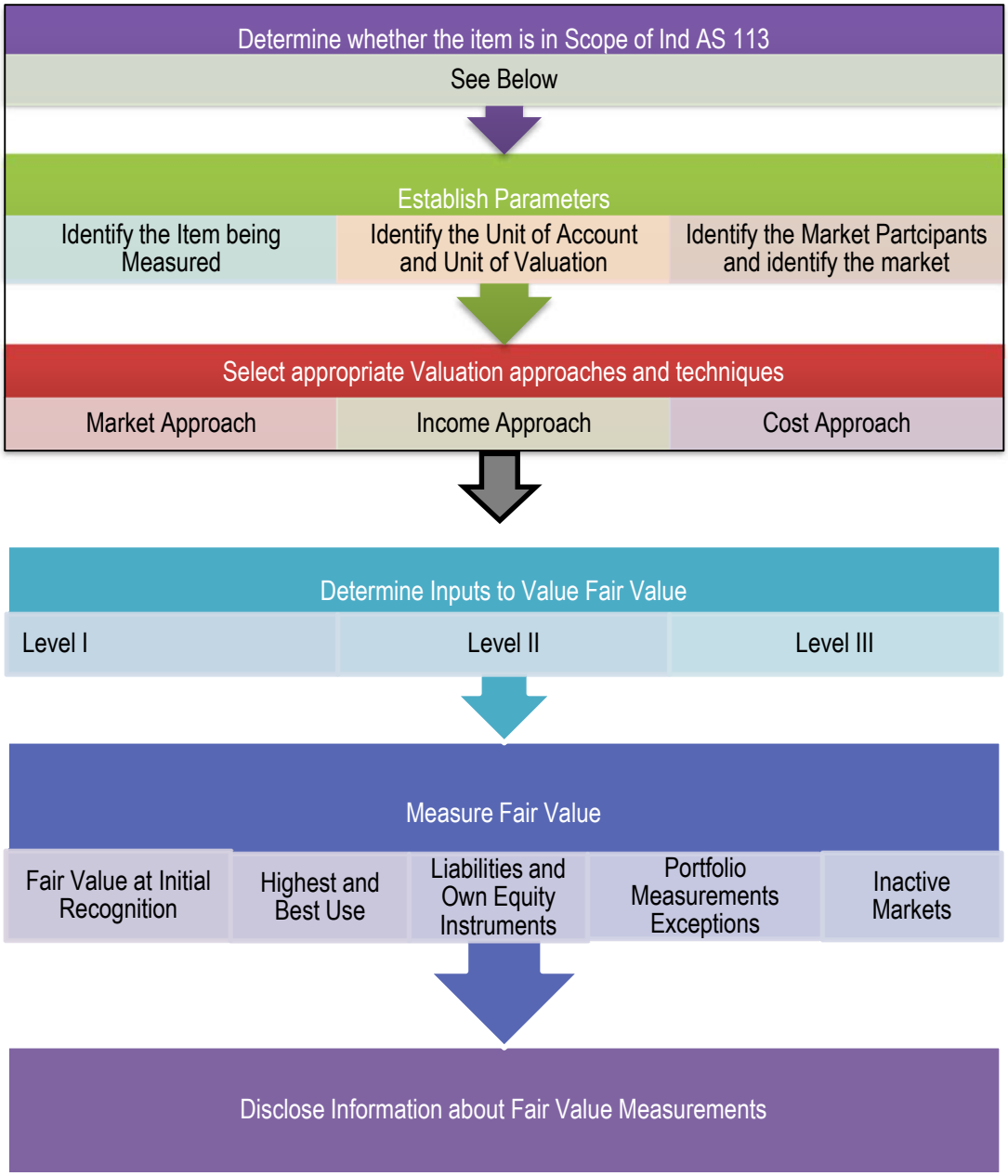
LEARNING OUTCOMES

After studying this unit, you will be able to:

- Understand the need for issuance of Ind AS 113
- Define fair value
- Appreciate the scope and objective of this standard
- Apply the provisions of the standard on 'non-financial assets', 'liabilities' and an entity's 'own equity instruments'
- Measure fair value at 'initial recognition'
- Use valuation techniques prescribed in the standard
- Classify the fair value hierarchy under various level
- Disclose the information as per the requirements of the standards

UNIT OVERVIEW

Ind AS 113

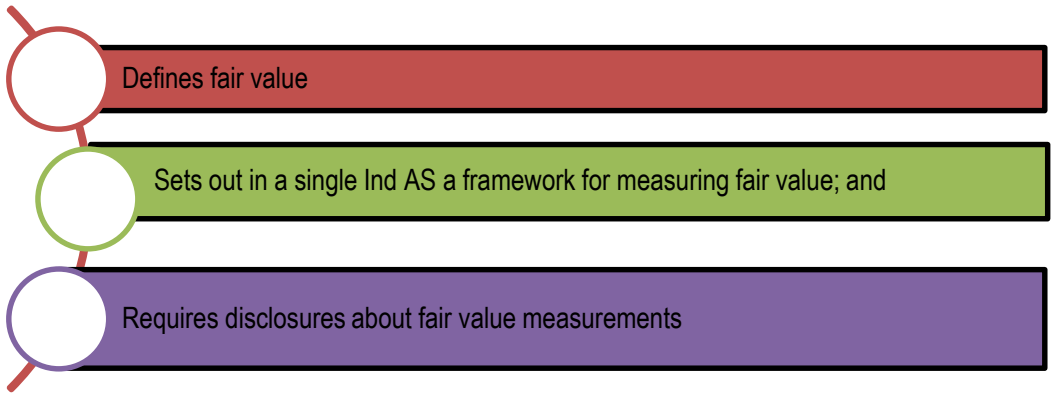


3.1 WHAT IS FAIR VALUE?

Normally assets and liabilities are being exchanged between parties at their agreed terms and conditions based on the prices which might be related to the entity or event based or in other words which is not at arm's length prices. To define fair value one has to ensure that the values reflect all assumptions/ adjustments to change from transaction specific/ entity specific to normal transaction which is common for all interested parties.

In other words, it is a market-based measurement not an entity specific measurement and this price should be received to sell an asset or paid to transfer a liability in a normal transaction (e.g. other than any stressed sale etc). Fair value is an exit price and not a price at which an asset/ liability sells / purchase otherwise.

3.2 OBJECTIVE



Fair value is a market-based measurement, not an entity-specific measurement.

The objective of a fair value measurement is—

- To estimate the price
- At which an orderly transaction to sell the asset or to transfer the liability would take place
- Between market participants
- At the measurement date
- Under current market conditions

(i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability).

When a price for an identical asset or liability is not observable, an entity measures fair value using another valuation technique that:

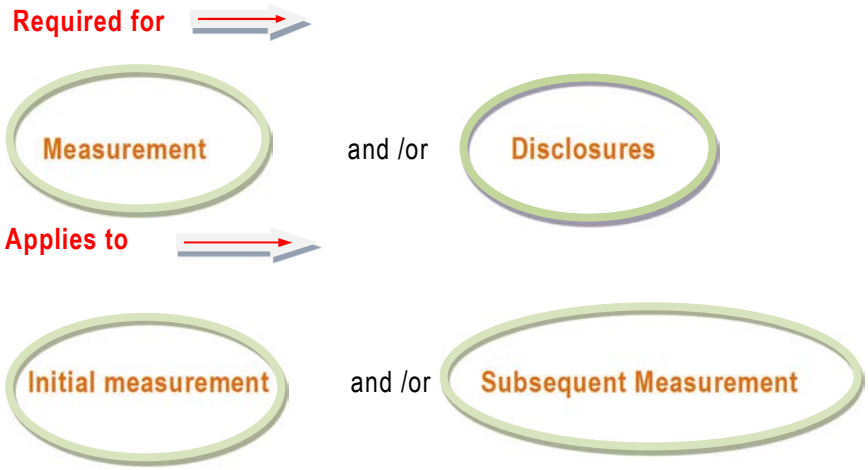
- Maximises the use of relevant observable inputs and
- Minimises the use of unobservable inputs.

Because fair value is a market-based measurement, it is measured using the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk. As a result, an entity's intention to hold an asset or to settle or otherwise fulfil a liability is not relevant when measuring fair value.

The definition of fair value focuses on assets and liabilities because they are a primary subject of accounting measurement. In addition, this Ind AS shall be applied to an entity's own equity instruments measured at fair value.

3.3 SCOPE

There are many Ind AS which require measuring assets / liabilities at fair value and whenever it is required to be fair valued, one looks at Ind AS 113. It means that this Standard will cover all such requirements of another standard where fair value measurement and disclosure is needed. However, there are some specific scope exclusions. It applies to initial measurement and subsequent measurement as required by respective Accounting Standard.



Example of items covered under Ind AS 113

- Fair value less cost to sell as required under Ind AS 105 for assets held for sale.
- Fair value through Profit and Loss or through Other Comprehensive Income as required under Ind AS 109 for Financial Instruments.
- Property, plant & equipment measured using revaluation modal as required under Ind AS 16.
- Biological assets measure at fair value under Ind AS 41 for biological assets.

3.3.1 What is not covered?

Standard specifically describes the below exceptions which are not covered by this Accounting Standard and hence one has to look at the respective standards to identify the process to calculate fair values of the items of that standard. The scope exclusion will be applied on below:

3.3.1.1 Measurement and Disclosure exclusion

(a) share-based payment transactions within the scope of Ind AS 102, Share based Payment;

(b) leasing transactions accounted in accordance with Ind AS 116, Leases; and

(c) measurements that have some similarities to fair value but are not fair value, such as net realisable value in Ind AS 2, Inventories, or value in use in Ind AS 36, Impairment of Assets.

3.3.1.2 Disclosure exclusion

(a) plan assets measured at fair value in accordance with Ind AS 19, Employee Benefits;

(b) assets for which recoverable amount is fair value less costs of disposal in accordance with Ind AS 36.

3.4 DEFINITION

This Ind AS defines fair value as **the price** that would be received to sell an asset or paid to transfer a liability in **an orderly transaction** between **market participants** at the measurement date.

Fair Value			
The price that would be received to sell an asset or paid to transfer a liability	In an orderly transaction	Between market participants	At the measurement date

In order to understand the definition of the fair value, some of the major terms as used in the definition need to be understood which are as follows:

a. The asset or liability

b. The transaction

c. Market participants

d. The price

Example 1 - Settlement vs Transfer

A bank holds a debt obligation with a face value of ₹ 1,00,000 and a market value of ₹ 95,000. Assume that market interest rates are consistent with the amount in the note; however, there is ₹ 5,000 discount due to market concerns about the risk of non-performance by Counterparty I.

Settlement value

Counterparty I would be required to pay the face value of the note to settle the obligation, because the bank might not be willing to discount the note by the market discount or the credit risk adjustment. Therefore, the settlement value would equal the face value of the note.

Transfer value

In order to calculate the transfer value, Counterparty I must construct a hypothetical transaction in which another counterparty (Counterparty II), with a similar credit profile, is seeking financing on terms that are substantially the same as the note. Counterparty II could choose to enter into a new note agreement with the bank or receive the existing note from Counterparty I in a transfer transaction. In this hypothetical transaction, Counterparty II should be equally willing to obtain financing through a new bank note or assumption of the existing note in return for a payment of ₹ 95,000. Therefore, the transfer value would be ₹ 95,000, and thus the fair value.

3.5 ASSET OR LIABILITY SPECIFIC FAIR VALUE

Ind AS 113 states that a fair value measurement takes into account the characteristics of the asset or liability, e.g. the condition and location of the asset and restrictions, if any, on its sale or use.

The restriction or the condition relating to asset which can affect the future economic benefit from the asset need to be considered in determining the fair value of the asset.

The standard emphasis that in order to get a fair value of an asset/ liability, the restrictions or conditions that might be related to a particular entity should not be taken into account because a fair value will be based on market participant assumptions rather to an entity specific conditions or restriction which usually will not affect fair valuation of an asset/ liability.

The restrictions could be entity specific or an asset/ liability specific hence all such restrictions which are asset/liability specific & being transfer to the buyer as it is, then these will be considered while calculating fair value. In contrast, if the restrictions are entity specific then it will not be considered.

	To consider in Fair Value
Entity specific restrictions	NO
Asset / liability specific restrictions	YES

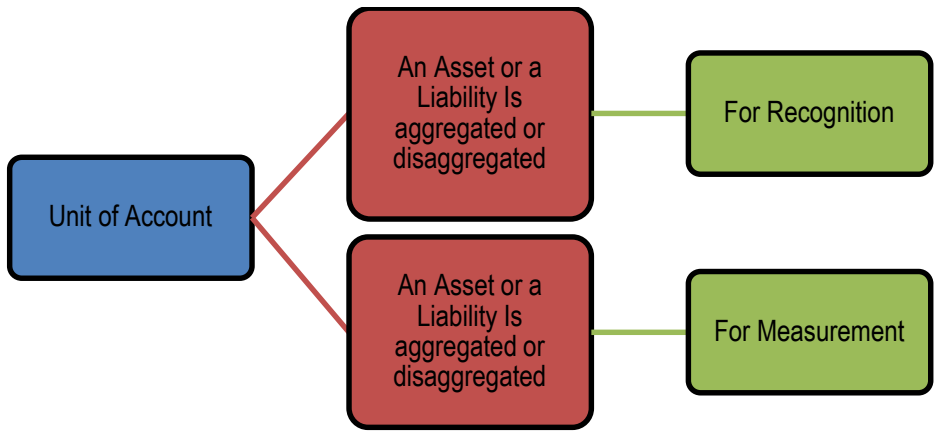
Example 2: Entity Specific restrictions

An entity is having a land which has a restriction to develop into a commercial house because of restricted business objective in which currently the entity operates. The entity wants to sell the land and there would not be any restriction for a buyer of the land to develop a commercial house, since this restriction is entity specific. Hence, it will not be considered while calculating fair value of the land.

Example 3: Asset / Liability specific restrictions

A car has been bought for private use and there is a restriction of not to use the car for any commercial purposes. Commercial vehicle is having more fair value than private vehicle. since the restriction to use the vehicle is asset specific and market participant will also consider the asset specific restrictions while calculating fair values for such asset, hence this condition will be considered while evaluating fair value of the car.

3.6 UNIT OF ACCOUNT



Ind AS 113 describes how to measure fair value, not what is being measured at fair value. Other Ind AS specify whether a fair value measurement considers an individual asset or liability or a group of assets or liabilities (i.e. the unit of account).

Whether the asset or liability is a stand-alone asset or liability, a group of assets, a group of liabilities or a group of assets and liabilities for recognition or disclosure purposes depends on its unit of account.

The unit of account for the asset or liability shall be determined in accordance with the Ind AS that requires or permits the fair value measurement, except as provided in this Ind AS.

This essentially defines the level of aggregation or disaggregation while calculating fair values of the assets/ liabilities.

Examples 5 & 6

5. An entity having certain securities which are quoted at market and these are recognized at fair value in the balance sheet. Quoted prices **at individual level** will be used in order to find fair values of these investments.

6. In order to evaluate fair value of assets to identify impairment as per Ind AS 36, which requires to measure such fair value at CGU (cash generating unit) level, group of assets will be used to find fair values as per the requirement of such standard.

3.7 THE TRANSACTION

A fair value measurement assumes that the asset or liability is exchanged in an orderly transaction between market participants to sell the asset or transfer the liability at the measurement date under current market conditions.

A fair value measurement assumes that the transaction to sell the asset or transfer the liability takes place either:

(a) in the principal market for the asset or liability; or

(b) in the absence of a principal market, in the most advantageous market for the asset or liability.

There could be different principal markets for different reporting entities even if they belong to the same group. The principal market / most advantageous market would separately be evaluated for different assets / liabilities under the fair valuation requirements.

3.7.1 Principal market

Market which is normally the place in which the assets / liabilities are being transacted with highest volume and with high level of activities comparing with any other market available for similar transactions.

If there is principal market, the price in the market must be used even if the prices in the other market are more advantageous.

Because the principal market is the most liquid market for the asset or liability, that market will provide the most representative input for a fair value measurement.

Example 7

Shares of a company which is listed at BSE and NYSE have different closing prices at the year end. The price at BSE has greatest volume and activity whereas at NYSE it is less in terms of volume transacted in the period. Since BSE has got highest volume and significant level of activity comparing to other market although the closing price is higher at NYSE, the closing price at BSE would be taken.

3.7.2 Most advantageous market

- This is the market which either maximizes the amount that would be received when an entity sells an asset or minimize the amount that is to be paid while transferring the liability.
- In the absence of a principal market, this market is used for fair valuation of the assets / liabilities. In many cases Principal Market & Most Advantageous Market will be same.
- The market will be assessed based on net proceeds from the sale after deducting expenses associated with such sale in the most advantageous market.

Example 8

Diamond (a commodity) has got a domestic market where the prices are less compared to the price available for export of similar diamonds. The Government has a policy to cap the export of Diamond, maximum upto 10% of total output by any such manufacturer. The normal activities of diamond are being done in the domestic market only i.e. 90% and balance 10% only can be sold via export. The highest level of activities with the highest volume is being done in the domestic market. Hence, the principal market for diamond would be the domestic market. Export prices are more than the prices in the principal market, and it would give the highest return as compared to the domestic market. Therefore, the export market would be considered as the most advantageous market. However, if principal market is available, then its prices would be used for fair valuation of assets/ liabilities.

3.8 MARKET PARTICIPANTS

A fair value measurement is a market-based measurement, not an entity-specific measurement. Therefore, a fair value measurement uses the assumptions that market participants would use when pricing the asset or liability.

An entity shall measure the fair value of an asset or a liability using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

3.8.1 What are market participants?

The parties which eventually transact the assets/ liabilities either in principal market or the most advantageous market in their best economic interest i.e.

- They should be independent and not related parties. However, if related parties have done similar transaction on arm's length price, then it can be between related parties as well.
- The parties should not be under any stress or force to enter into these transactions
- All parties should have reasonable and sufficient information about the same.

Example 9

A land has legal restriction to use it for commercial purposes in next 10 years irrespective of its holder. The fair value of the land will include this restriction about its usage because it is an asset related restriction and any buyer will need to take over with similar restriction to use the land for next 10 years. Now to evaluate its fair value, one has to consider the restriction based on the assumptions which normally would be taking into account by its market participants, mentioned as below

a) Whether the restriction is commonly imposed on each such type of land?

b) How useful it will be after the end of 10 years?

c) Whether there is any alternative use which may be considered normally by a participant for similar kind of deals?

d) How liquid the sale of land will be with such restrictions?

e) Comparing the price with similar kind of land without restrictions to arrive at its fair values.

3.9 THE PRICE

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (i.e. an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.

A fair value is being assessed based on principal market and if principal market is not available then based on the most advantageous market.

Illustration 1

A Ltd. has invested in certain bonds. The fair value of these bonds in different markets to which A Ltd. has an access is as follows:

(i) Principal market ₹ 500

(ii) Highest and best use ₹ 600

(iii) Net present value of expected cash flows ₹ 550

(iv) Asset based valuation approach ₹ 450

What will be the fair value of bond as per Ind AS 113?

Solution

As per para 24 of Ind AS 113, fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (i.e. an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.

Further, para 72 of the standard inter alia states that the fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1 inputs) and the lowest priority to unobservable inputs (Level 3 inputs).

According to the above, the value of bond shall be ₹ 500 based on the principal market.

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3.9.1 Transaction cost

The transaction costs are not a characteristic of an asset or a liability, but a characteristic of the transaction.

Hence, it would not be appropriate to consider any transaction cost further while assessing fair values from such principal markets.

Note: Transaction costs do not include transport costs.

3.9.2 Transport cost

Transport costs are different from transaction costs. It is the cost that would be incurred to transport the asset from its current location to its principal (or most advantageous) market. Unlike transaction costs, which arise from a transaction and do not change the characteristics of the asset or liability, transport costs arise from an event (transport) that does change a characteristic of an asset (its location).

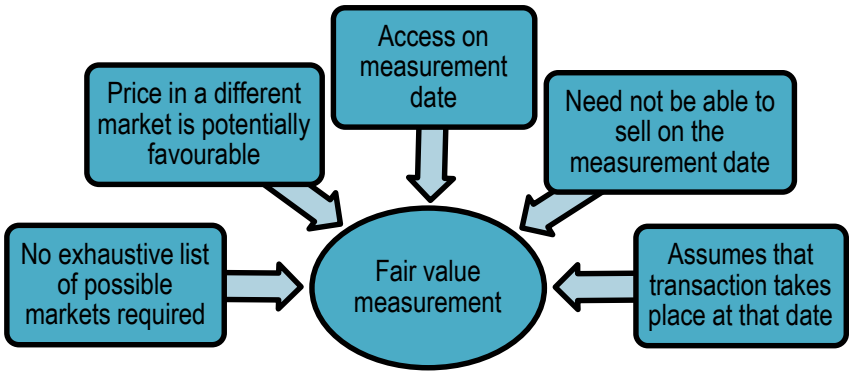
If location is a characteristic of the asset (as might be the case, for example, for a commodity), the price in the principal (or most advantageous) market shall be adjusted for the costs, if any, that would be incurred to transport the asset from its current location to that market.

It would be considered, if in case it is an inherent part of the Assets/ Liability so transacted e.g. commodity.

	Principal market	Most advantageous market
Transaction Cost	NO	YES
Transport cost	YES	YES

Example 10

An entity sells certain commodity which are available actively at location A and which is considered to be its principal market (being significant volume of transactions and activities takes place). However, fair value of the commodity is required to be assessed for location B which is far from location A and requires a transport cost of ₹ 100. Since the transport cost is not a transaction cost and it is not specific to any transaction but it is inherent cost which required to be incurred while bringing such commodity from location A to location B, it will be considered while evaluating fair value from the principal market.



3.10 APPLYING FAIR VALUE RULES ON NON-FINANCIAL ASSETS

The financial assets do not have alternative uses because they have specific contractual terms and can have a different use only if the characteristics of the financial assets (ie the contractual terms) are changed.

Fair valuation in case of non-financial assets especially buildings and other property, plant and equipment often require to look for the best and highest use by its market participants and that will be the reference point to evaluate fair value of such non-financial assets.

3.10.1 Highest and best use

The highest and best use is a valuation concept used to value many non-financial assets (eg real estate). The highest and best use of a non-financial asset must be physically possible, legally permissible and financially feasible.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The highest and the best use is determined from market participant perspective. It does not matter whether the entity intends to use the asset differently.

Analysis of Highest and best use for non-financial asset

- The highest and best use would determine an indicative price for a non-financial asset which usually do not have any frequently traded market unlike for other financial products.
- The concept emphasis that in order to find a fair value of such non-financial products, one has to define its best possible use which makes the non-financial asset separate from any specific entity who would like to use such asset in their own specific purposes which may or may not be its best use.

- To find out the best possible use, one has to identify its market participants and then to find best legitimate use of this non- financial asset which one would normally do.
- All restrictions specific to any market participant would not be considered while finding out fair value of the non-financial asset.
- It is imperative to understand the best use while evaluating such fair values, as there is no need to exhaust all possible uses of such non-financial assets before concluding highest and best use.
- In the absence of potential best use which is not easily available, its current use would be considered as best use.

Examples 11, 12 & 13

11. An entity bought some land which is intended to be used for business purposes. However, the entity now wants to sell this piece of land at its fair value. One has to evaluate all possible uses of this land before determining its fair value. The land could be used to make a commercial place, which could be more in value as compared to when it is used for business purposes. The commercial place value would be considered its highest and best use if the same is allowed in its near locations and condition.

12. Current use as Highest and Best Use

A Ltd acquires a machine in a business combination by acquiring controlling stake in B Ltd. The machine will be held and used in A's operations. The machine was originally purchased by B Ltd from an outside vendor and, before the business combination, was customized by B Ltd for use in its operations. However, the customization of the machine was not extensive.

A Ltd determines that the asset would provide maximum value to market participants through its use in combination with other assets or with other assets and liabilities (as installed or otherwise configured for use). There is no evidence to suggest that the current use of the machine is not its highest and best use. Therefore, the highest and best use of the machine is its current use in combination with other assets or with other assets and liabilities.

13. Potential use as Highest and Best Use

A Ltd owns a property, which comprises land with an old warehouse on it. It has been determined that the land could be redeveloped into a leisure park. The land's market value would be higher if redeveloped than the market value under its current use. A Ltd is unclear about whether the investment property's fair value should be based on the market value of the property (land and warehouse) under its current use, or the land's potential market value if the leisure park redevelopment occurred.

The property's fair value should be based on the land's market value for its potential use. The 'highest and best use' is the most appropriate model for fair value. Under this approach, the property's existing-use value is not the only basis considered. Fair value is the highest value, determined from market evidence, by considering any other use that is **physically possible, legally permissible and financially feasible.**

The highest and best use valuation assumes the site's redevelopment. This will involve demolishing the current warehouse and constructing a leisure park in its place. Therefore, none of the market value obtained for the land should be allocated to the building. So, the market value of the current building on the property's highest and best use (as a warehouse), is Nil. As a result, the building's current carrying amount should be written down to zero.

3.10.2 Valuation premise

Fair value measurement of non-financial assets would be based on either

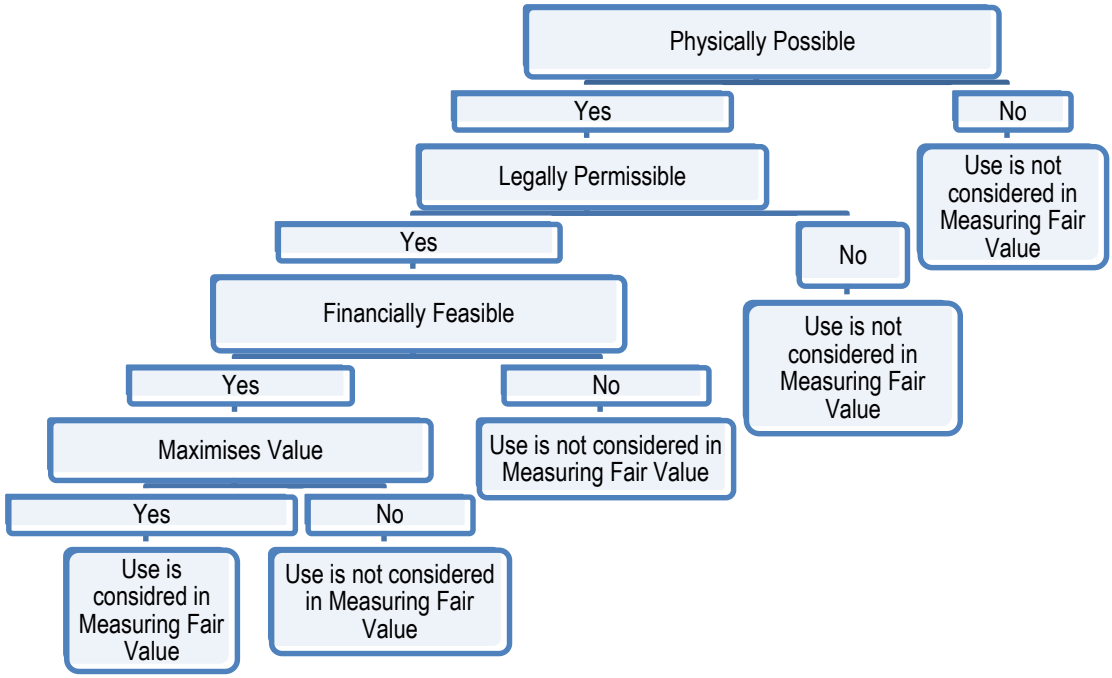
1) In combination with other assets, or

2) At standalone basis,

Standard requires to use best used value if such non-financial asset is used in combination with some other assets and it is demonstrated that the such combination is widely used by other market participants also in order to find best use for the non-financial asset.

Example 14

To find the fair value of customer relations where a right to receive all future technological updates/ researches is being provided as complementary (which is in a way another intangible asset) i.e. other than customer relations. The customer relations would be valued together with the right to receive all the future technological updates / researches, as it is likely to have less or no value for the customer relations without considering such right to receive all future technological updates/ researches which is being provided free to them.



3.11 APPLYING FAIR VALUE RULES TO LIABILITIES AND AN ENTITY'S OWN EQUITY INSTRUMENTS

A fair value measurement assumes that a financial or non-financial liability or an entity's own equity instrument (eg equity interests issued as consideration in a business combination) is transferred to a market participant at the measurement date.

Many a times a liability or an equity instrument of an entity is being transferred to some other market participant as part of a transaction e.g. a business combination, where certain liabilities or equity instruments are being issued in consideration of such acquisitions.

The standard specifies an assumption that liabilities and /or equity instruments so transferred will remain outstanding on the date of measurement. Standard prescribes to use all observable inputs (if direct quoted prices are not available) and should minimize any un-observable inputs. The transaction considered to find fair value should be evaluated in line with an orderly transaction (not an entity specific).

The standard specifically provides guidance on the respective scenarios while evaluating fair values of the liabilities and own equity instruments in case direct quoted prices are not available.

Observable Inputs : Inputs that are developed using market data, such as publicly available information about actual events or transactions, and that reflect the assumptions that market participants would use when pricing the asset or liability.

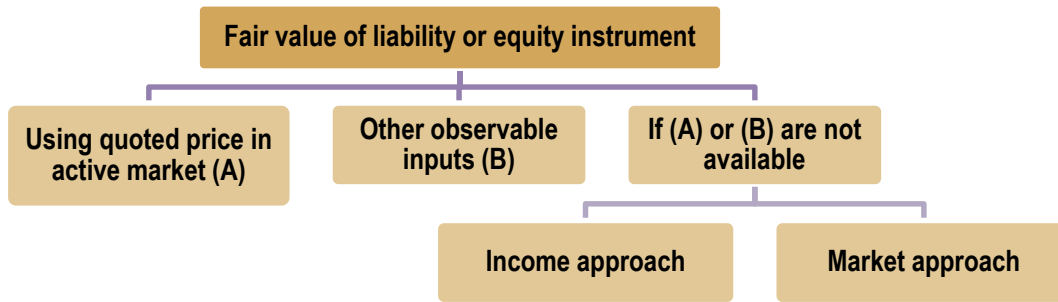
Unobservable Inputs : Inputs for which market data are not available and that are developed using the best information available about the assumptions that market participants would use when pricing the asset or liability.

3.11.1 When liability and equity instruments are held by other parties as assets

When directly quoted prices are not available for liabilities or equity instruments, then an entity should use an identical price of similar liabilities or equity instruments which is held by market participants as an asset. The quoted prices of such assets at the measurement date should be used. However, if quoted prices are not available then observable inputs can be used. In the absence of observable inputs, the valuation techniques such as income approach or market approach etc. may be used.

3.11.2 When liability and equity instruments are not held by other parties as assets

When these are not held by other parties then valuation techniques from the perspective of a market participant that owes the liability or has issued the claim on equity would be used to evaluate such fair values.



3.12 APPLYING FAIR VALUE RULES TO FINANCIAL ASSET & FINANCIAL LIABILITY WITH OFFSETTING POSITION IN MARKET RISK OR COUNTERPARTY RISK

Assets and liabilities that are being managed by an entity would be affected by its market risk i.e. interest rate risk, currency risk etc. and credit risk relating to its respective counterparties.

There are many situations where a group of assets and liabilities are being managed on net basis rather than individual basis by an entity.

For example, certain contracts of derivatives which are being netted with all existing open positions from same counterparty etc.

If the entity manages that group of financial assets and financial liabilities on the basis of its net exposure to either market risks or credit risk, the entity is permitted to apply an exception to this Ind AS for measuring fair value.

That exception permits an entity to measure the fair value of a group of financial assets and financial liabilities on the basis of the price that would be received to sell a net long position (ie an asset) for a particular risk exposure or paid to transfer a net short position (ie a liability) for a particular risk exposure in an orderly transaction between market participants at the measurement date under current market conditions. Accordingly, an entity shall measure the fair value of the group of financial assets and financial liabilities consistently with how market participants would price the net risk exposure at the measurement date.

Analysis of applying offsetting position in market or credit risk

- This exception is allowed only in case the other market participants also manage the similar risk on net basis.
- There should ideally be same information and market practice available for making these assets/ liabilities on net basis.

All open position for derivatives are being normally evaluated on net exposure basis from each counterparty.

- Once the exception to fair value certain assets/ liabilities on net basis is being used, then unit of account to measure fair value would be considered as net.
- Market risk should be same while combining any asset/ liability.

An interest rate risk can not be netted with a commodity price risk.

- Duration of a market risk should be identical to use the exception for valuing assets/ liabilities on net basis.

1. An interest rate swap of longer period will only be allowed to value at net basis upto the duration of financial instrument of the same duration.
2. Certain Interest rate risk from counterparty Z is being managed on net basis considering the changes in interest rate amount receivable and amounts payable to counterparty Z from normal sale/ purchase basis. Hence such net exposure would be used to evaluate fair values as required by this standard. The netting should normally be followed by other market participants as well and should not be an entity specific.

3.13 FAIR VALUE AT INITIAL RECOGNITION

When an asset is acquired or a liability is assumed in an exchange transaction for that asset or liability, the transaction price is the price paid to acquire the asset or received to assume the liability (an entry price).

In contrast, the fair value of the asset or liability is the price that would be received to sell the asset or paid to transfer the liability (an exit price). Entities do not necessarily sell assets at the prices paid to acquire them. Similarly, entities do not necessarily transfer liabilities at the prices received to assume them.

In many cases the transaction price will equal the fair value (eg that might be the case when on the transaction date the transaction to buy an asset takes place in the market in which the asset would be sold).

When determining whether fair value at initial recognition equals the transaction price, an entity shall take into account factors specific to the transaction and to the asset or liability. For example, the transaction price might not represent the fair value of an asset or a liability at initial recognition if any of the following conditions exist:

(a) The transaction is between related parties, although the price in a related party transaction may be used as an input into a fair value measurement if the entity has evidence that the transaction was entered into at market terms.

(b) The transaction takes place under duress or the seller is forced to accept the price in the transaction. For example, that might be the case if the seller is experiencing financial difficulty.

(c) The unit of account represented by the transaction price is different from the unit of account for the asset or liability measured at fair value. For example, that might be the case if the asset or liability measured at fair value is only one of the elements in the transaction (eg in a business combination), the transaction includes unstated rights and privileges that are measured separately in accordance with another Ind AS, or the transaction price includes transaction costs.

(d) The market in which the transaction takes place is different from the principal market (or most advantageous market). For example, those markets might be different if the entity is a dealer that enters into transactions with customers in the retail market, but the principal (or most advantageous) market for the exit transaction is with other dealers in the dealer market.

If another Ind AS requires or permits an entity to measure an asset or a liability initially at fair value and the transaction price differs from fair value, the entity shall recognise the resulting gain or loss in profit or loss unless that Ind AS specifies otherwise.

3.14 VALUATION TECHNIQUES

When measuring fair value, the objective of using a valuation technique is to estimate the price at which an orderly transaction would take place between market participants at the measurement date under current market conditions.

An entity shall use valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

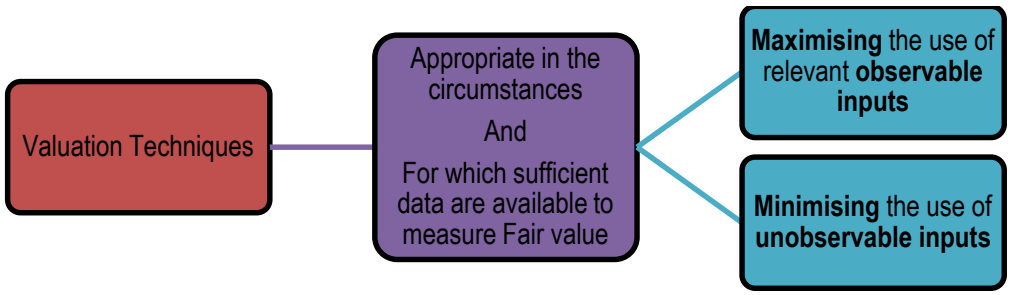
It is pertinent to note that the overall objective to use any valuation approach or technique is in accordance with all relevant data available related to the Asset/ liability which could utilize all directly observable inputs.

Note: It is worth to be noted that in case of availability of **quoted prices** which are being used in an active market, there is no need to consider any valuation approach further.

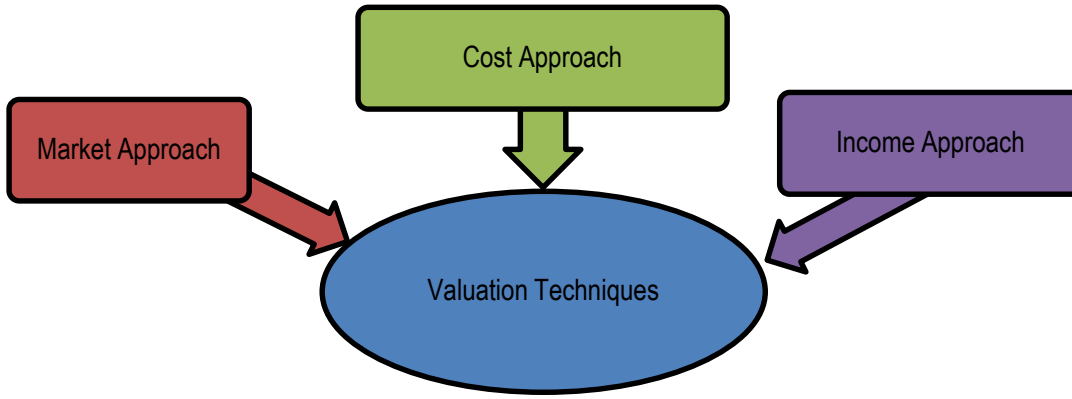
The standard requires and allows using one or combination of more than one approach to measure any fair value which corroborates all inputs available related to such asset/ liability. Selecting an appropriate approach is matter of judgment and based on the available inputs related to the asset / liability.

Example 15

An unquoted investment can be fair valued either by taking similar entity's quoted prices with appropriate adjustments or a valuation of business using DCF or some other technique. This would purely be dependent upon the available inputs and approach relevant for the asset/ liability.



Ind AS 113 specifies following three approaches to measure fair values:



1. MARKET APPROACH : The market approach uses prices and other relevant information generated by market transactions involving identical or comparable (i.e. similar) assets, liabilities or a group of assets and liabilities, such as a business.

For example, valuation techniques consistent with the market approach often use market multiples derived from a set of comparables. Multiples might be in ranges with a different multiple for each comparable. The selection of the appropriate multiple within the range requires judgement, considering qualitative and quantitative factors specific to the measurement.

Quoted prices are indicative values of any business if it exchanges in an active market. However, in the absence of such quoted prices, it is relevant to value the business based on market values and do some adjustment relevant to the assets/ liabilities. Standard specifies a valuation technique called "Matrix pricing" which is normally used to value debt securities. This technique relates the securities with some similar benchmarked securities including coupons, credit ratings etc. to derive at fair value of the debt.

An entity does not have any security which is quoted in an active market, however, its price to earnings ratio is being used to corroborate its enterprise value with certain adjustments relevant to the business e.g. there are some specific restrictions to use certain assets for some specific period being in a specialized industry.

2. INCOME APPROACH: The income approach converts future amounts (e.g. cash flows or income and expenses) to a single current (i.e. discounted) amount. When the income approach is used, the fair value measurement reflects current market expectations about those future amounts.

It is a present value of all future earnings from an entity whose fair values are being evaluated or in other words all future cash flows to be discounted at current date to get fair value of the asset / liability.

Assumption to the future cash flows and an appropriate discount rate would be based on the other market participant's views. Related risks and uncertainty would require to be considered and would be taken into either in cash flow or discount rate.

Illustration 2

Discount Rate assessment to measure present value:

Investment 1 is a contractual right to receive ₹ 800 in 1 year. There is an established market for comparable assets, and information about those assets, including price information, is available. Of those comparable assets:

a. *Investment 2 is a contractual right to receive ₹ 1,200 in 1 year and has a market price of ₹ 1,083.*

b. *Investment 3 is a contractual right to receive ₹ 700 in 2 years and has a market price of ₹ 566.*

All three assets are comparable with respect to risk (that is, dispersion of possible payoffs and credit).

You are required to measure the fair value of Asset 1 basis above information.

Solution

On the basis of the timing of the contractual payments to be received for Investment 1 relative to the timing for Investment 2 and Investment 3 (that is, one year for Investment 2 versus two years for Investment 3), Investment 2 is deemed more comparable to Investment 1. Using the contractual payment to be received for Investment 1 (₹ 800) and the 1-year market rate derived from Investment 2, the fair value of Investment 1 is calculated as under:

Investment 2 Fair Value		₹ 1,083
Contractual Cash flows in 1 year		₹ 1,200
IRR	=	₹ 1,083 x (1 + r) = ₹ 1,200
	=	(1 + r) = (₹ 1,200 / ₹ 1,083) = 1.108
		r = 1.108 – 1 = 0.108 or 10.8%
Value of Investment 1		= ₹ 800 / 1.108 = ₹ 722

Alternatively, in the absence of available market information for Investment 2, the one-year market rate could be derived from Investment 3 using the build-up approach. In that case, the 2-year market rate indicated by Investment 3 would be adjusted to a 1-year market rate using the term structure of the risk-free yield curve. Additional information and analysis might be required to determine whether the risk premiums for one-year and two-year assets are the same. If it is determined that the risk premiums for one-year and two-year assets are not the same, the two-year market rate of return would be further adjusted for that effect.

*****

Standard defines the below techniques which may be considered while using Income approach

a) Present value techniques

b) Option pricing modals e.g. Black-Scholes Merton modal or Binomial modal

c) The multi period excess earning method.

Example 16

An entity has estimated its next year's earnings (cash flows) based on certain probability as mentioned below:

Possible cash flows (₹)	Probability	Probability weighted cash flows
700	20%	140
800	40%	320
900	40%	360
	Total expected cash flow	820
	Risk free rate	6%
	Present value of cash flow (1 year)	820 / (1.06) = ₹ 773.58

3. COST APPROACH: This method describes how much cost is required to replace existing asset/ liability in order to make it in a working condition. All related costs will be its fair value. It actually considers replacement cost of the asset/ liability for which we need to find fair value.

3.15 INPUTS TO VALUATION TECHNIQUES

Valuation techniques used to measure fair value shall maximize the use of relevant observable inputs and minimize the use of unobservable inputs.

It has widely been mentioned that observable inputs should be used to evaluate fair value of an asset/ liability and we should minimize using any unobservable inputs.

Standard describes the below instances where observable inputs are being used in case of certain Financial Instruments:

Markets (by nature)	Prices (observable)	Rationale	Ind AS 113 compliant
Exchange Markets	Closing prices	Readily available	Yes
Dealer Market	Bid & Ask prices	Readily available than closing prices	Yes

Brokered Market	Buy & Sell order matching, commercial and residential markets	Broker knows better prices from both buy & Sell side	Yes
Principal to principal Markets	Negotiated prices with no intermediary	Little information available in market	Yes

The inputs refer broadly to the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk.

In order to establish comparability and consistency in fair value measurement, Ind AS 113 has made some hierarchy to define the level of inputs for fair value. The hierarchy is purely based on the level of inputs available for the specific Asset / liability for which the fair value is to be measured.

Some significant notes about the fair value hierarchy

- The hierarchy has been categorized in 3 levels which are based on the level of inputs that are being used to find out such fair values. There could be a situation where more than one level of fair value is being used, hence standard provides a guidance which states that in case of using more than one level of input, the entire class of asset / liability will be defined by its level which has significance on overall basis.

Note: Significance has not been defined anywhere and could be a matter of judgement.

- Standard defines the valuation techniques that could be used to evaluate fair values of Assets/ liabilities and its level of hierarchy will be depending upon the level of inputs that have been used while using such valuation techniques.
- If an observable input requires an adjustment using an unobservable input and that adjustment results in a significantly higher or lower fair value measurement, the resulting measurement would be categorized within Level 3 of the fair value hierarchy.

Example 17

If a market participant would take into account the effect of a restriction on the sale of an asset when estimating the price for the asset, an entity would adjust the quoted price to reflect the effect of that restriction. If that quoted price is a Level 2 input and the adjustment is an unobservable input that is significant to the entire measurement, the measurement would be categorised within Level 3 of the fair value hierarchy.

3.15.1 Level 1 Inputs

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.

A quoted price in an active market provides the most reliable evidence of fair value and shall be used without adjustment to measure fair value whenever available.

A Level 1 input will be available for many financial assets and financial liabilities, some of which might be exchanged in multiple active markets (e.g. on different exchanges). Therefore, the emphasis within Level 1 is on determining both of the following:

- The principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability
- Whether the entity can enter into a transaction for the asset or liability at the price in that market at the measurement date

Example 18

An entity is holding investment which is quoted in BSE, India and NYSE, USA. However, significant activities are being done at BSE only. The fair value of the investment would be referenced to the quoted price at BSE India (which is Level 1 fair value- Direct quoted price with no adjustments).

3.15.1.1 Adjustment to Quoted Price when it does not reflect the fair price

In certain situations, a quoted price in an active market might not faithfully represent the fair value of an asset or liability, such as when significant events occur on the measurement date but after the close of trading. In these situations, companies should adjust the quoted price to incorporate this new information into the fair value measurement. However, if the quoted price is adjusted, the resulting fair value measurement would no longer be considered a Level 1 measurement. A company's valuation policies and procedures should address how these "after-hour" events will be identified and assessed. Controls should be put in place to ensure that any adjustments made to quoted prices are appropriate and are applied in a consistent manner.

Example 19

A Ltd., a large biotech company with shares traded publicly, has developed a new drug that is in the final phase of clinical trials. B Ltd. has an equity investment in A Ltd.'s shares. B Ltd. determines that the shares have a readily determinable fair value and accounts for the investment at fair value through profit and loss. B Ltd. assesses the fair value as of the measurement date of 31st March 20X3. Consider the following:

(i) On 31st March 20X3, the Drug Approval authority notifies A Ltd.'s management that the drug was not approved. A Ltd.'s shares closed at ₹ 36.00 on 31st March 20X3.

(ii) A Ltd. issued a press release after markets closed on 31st March 20X3 announcing the failed clinical trial.

(iii) A Ltd.'s shares opened on next working day at ₹ 22.50.

The drug failure is a condition (or a characteristic of the asset being measured) that existed as of the measurement date. B Ltd. concludes the ₹ 36.00 closing price on the measurement date does not represent fair value of the A Ltd.'s shares at 31st March 20X3 because the price does not reflect the effect of the Authority's non-approval.

The subsequent transactions that take place when the market opens are relevant to the fair value measurement recorded as of the measurement date. The opening price of ₹ 22.50 indicates how market participants have incorporated the effect of the non-approval on A Ltd.'s stock price.

B Ltd. adjusts the 31st March 20X3 quoted price for the new information, records the shares at ₹ 22.50 per share at 31st March 20X3 and discloses the investment as a Level 2 measurement.

3.15.2 Level 2 Inputs

Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

If the asset or liability has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the asset or liability. Level 2 inputs include the following:

(a) quoted prices for similar assets or liabilities in active markets.

(b) quoted prices for identical or similar assets or liabilities in markets that are not active.

(c) inputs other than quoted prices that are observable for the asset or liability, for example:

  (i) interest rates and yield curves observable at commonly quoted intervals;

  (ii) implied volatilities; and

  (iii) credit spreads.

  (iv) market-corroborated inputs.

Examples 20-22

20. Receive-fixed, pay-variable interest rate swap based on a yield curve denominated in a foreign currency. It requires rate of swap which is of 11 years. However, normally the rates are available only for the maximum period of 10 years. The rate for 11 years can be established using extrapolation or some other techniques which is based on 10 years' available rates of swap. The fair value of 11 years so derived would be level 2 fair value.

21. An entity has an investment in another entity which has no active market. However, some similar investment is being traded in an active market. Now, the fair valuation can be done based on either the prices based on the market which is not active or similar traded investment in an active market. This would be considered as level 2 inputs.

22. X and Y each enter into a contractual obligation to pay ₹ 500 in cash to D in five years. X has an AA credit rating and can borrow at 6%. Y has a BBB credit rating and can borrow at 12%.

X will receive about ₹ 374 in exchange for its promise (the present value of ₹ 500 in five years at 6%). Y will receive about ₹ 284 in exchange for its promise (the present value of ₹ 500 in five years at 12%).

The fair value of the liability to each entity (that is, the proceeds) incorporates that entity's credit standing.

3.15.3 Level 3 Inputs

Level 3 inputs are unobservable inputs for the asset or liability. Unobservable inputs shall be used to measure fair value to the extent that relevant observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date. However, the fair value measurement objective remains the same, i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability. Therefore, unobservable inputs shall reflect the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk.

Assumptions about risk include the risk inherent in a particular valuation technique used to measure fair value (such as a pricing model) and the risk inherent in the inputs to the valuation technique. A measurement that does not include an adjustment for risk would not represent a fair value measurement if market participants would include one when pricing the asset or liability.

For example - It might be necessary to include a risk adjustment when there is significant measurement uncertainty (e.g. when there has been a significant decrease in the volume or level of activity when compared with normal market activity for the asset or liability, or similar assets or liabilities, and the entity has determined that the transaction price or quoted price does not represent fair value).

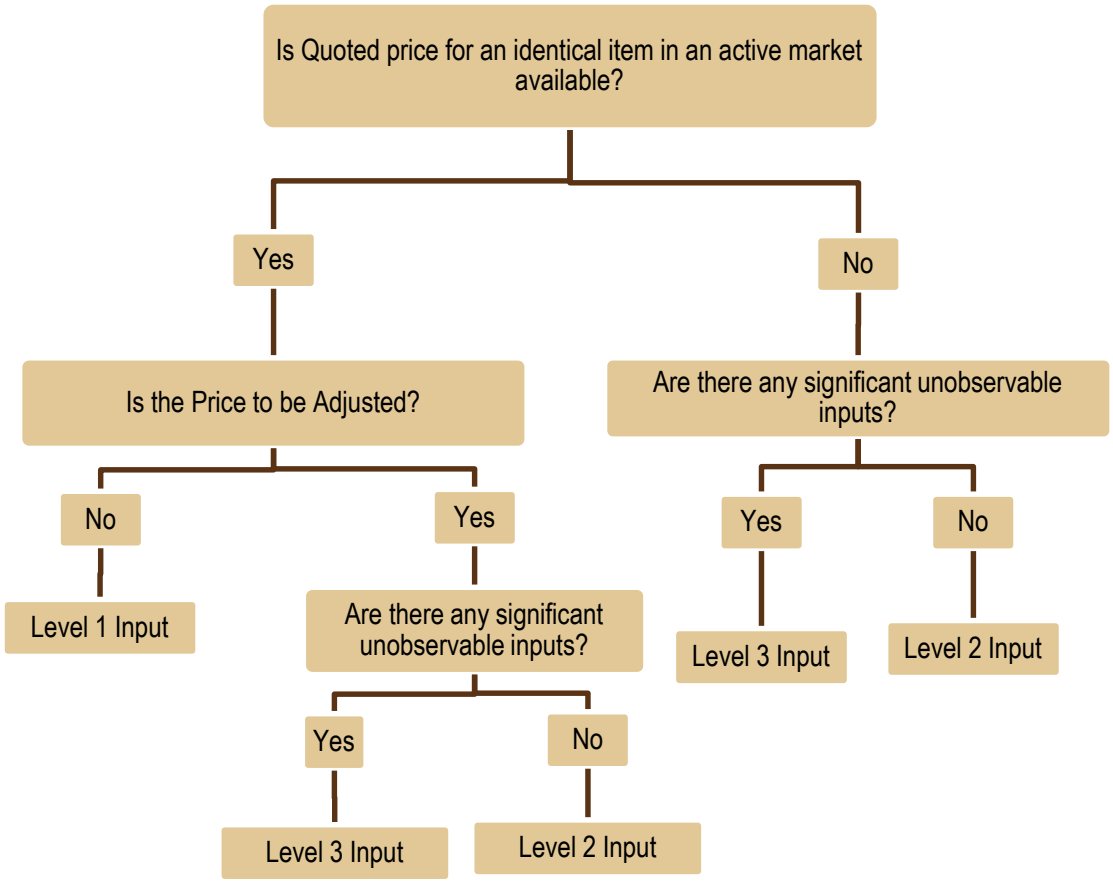
Examples 23 and 24

23. Interest rate swap

An adjustment to a mid-market consensus (non-binding) price for the swap is being developed using data that are not directly observable and cannot otherwise be corroborated by observable market data. This would be level 3 input for measurement of fair value.

24. Cash-generating unit

A Level 3 input would be a financial forecast (eg of cash flows or profit or loss) developed using the entity's own data, if there is no reasonably available information that indicates usage of different assumptions by market participants.



3.16 DISCLOSURES

An entity shall disclose information that helps users of its financial statements assess both of the following:

(a) for assets and liabilities that are measured at fair value on a recurring or non-recurring basis in the balance sheet after initial recognition, the valuation techniques and inputs used to develop those measurements.

(b) for recurring fair value measurements using significant unobservable inputs (Level 3), the effect of the measurements on profit or loss or other comprehensive income for the period.

The disclosure requirements can be summarized as per the below table –

	Fair Value Measurement						Disclosure		
	Recurring			Non-recurring					
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Fair value at each reporting date	✓	✓	✓	✓	✓	✓			
Reasons for measurement				✓	✓	✓			
Level of hierarchy	✓	✓	✓	✓	✓	✓	✓	✓	✓
Transfers	✓	✓	✓						
Valuation techniques		✓	✓		✓	✓		✓	✓
If change in valuation techniques		✓	✓		✓	✓		✓	✓
Quantitative info about significant unobservable inputs			✓			✓			
Reconciliation of opening & closing			✓						
Unrealized gains/ losses from remeasurement			✓						
Valuation process & policies			✓			✓			
Sensitivity to changes in unobservable inputs			✓						
If highest & best use differs from actual	✓	✓	✓	✓	✓	✓	✓	✓	✓

3.17 EXTRACTS OF FINANCIAL STATEMENTS OF LISTED ENTITIES

Following is the extract from the financial statements of the listed entity 'Titan Company Limited' for the financial year 2021-2022 with respect to 'Fair Value Measurement' and accounting policy adopted by the company with respect to measurement technique.

34.2 (i) Fair value hierarchy

This note explains about basis for determination of fair values of various financial assets and liabilities:

₹ in crore

Particulars	As at 31st March 2022			
	Level 1	Level 2	Level 3	Total
a) Financial assets and liabilities measured at fair value				
Financial assets				
- Quoted investments at FVTPL	1	-	-	1
- Other unquoted investments	-	-	18	18
- Derivative instruments other than in designated hedge accounting relationships	-	1	-	1
Total financial assets	**1**	**1**	**18**	**20**
Financial liabilities				
- Gold on loan	5,161	-	-	5,161
Total financial liabilities	**5,161**	**-**	**-**	**5,161**

₹ in crore

Particulars	As at 31st March 2021			
	Level 1	Level 2	Level 3	Total
b) Financial assets and liabilities measured at fair value				
Financial assets				
- Quoted investments at FVTPL	-	2,753	-	2,753
- Other unquoted investments	-	-	10	10
- Derivative instruments other than in designated hedge accounting relationships	-	1	-	1
Total financial assets	**-**	**2,754**	**10**	**2,764**
Financial liabilities				
- Gold on loan	4,094	-	-	4,094
Total financial liabilities	**4,094**	**-**	**-**	**4,094**

Notes to the Standalone Financial Statements

for the year ended 31st March 2022

(ii) Valuation technique used to determine fair value

Specific value techniques used to value financial instruments include:

- the use of quoted market prices for listed instruments.
- the fair value of forward foreign exchange contracts is determined using forward exchange rates at the balance sheet date.
- the fair value of foreign currency option contracts is determined using option prices obtained from banks.
- the fair value of remaining financial instruments is determined using market comparables, discounted cash flow analysis.

(iii) Fair value of financial assets and liabilities that are not measured at fair value but fair value disclosures are required

The carrying values of financial assets and liabilities approximate the fair values.

(Source: Annual Report 2021-2022 - 'Titan Company Limited')

FOR SHORTCUT TO IND AS WISDOM: SCAN ME!

TEST YOUR KNOWLEDGE

Questions

1. An asset is sold in 2 different active markets at different prices. An entity enters into transactions in both markets and can access the price in those markets for the asset at the measurement date.

   In Market A:

   The price that would be received is ₹ 26, transaction costs in that market are ₹ 3 and the costs to transport the asset to that market are ₹ 2.

   In Market B:

   The price that would be received is ₹ 25, transaction costs in that market are ₹ 1 and the costs to transport the asset to that market are ₹ 2.

   You are required to calculate:

   (i) The fair value of the asset, if market A is the principal market, and

   (ii) The fair value of the asset, if none of the markets is principal market.

2. Company J acquires land in a business combination. The land is currently developed for industrial use as a factory site. Although the land's current use is presumed to be its highest and best use unless market or other factors suggest a different use, Company J considers the fact that nearby sites have recently been developed for residential use as high-rise apartment buildings.

   On the basis of that development and recent zoning and other changes to facilitate that development, Company J determines that the land currently used as a factory site could be developed as a residential site (e.g., for high-rise apartment buildings) and that market

participants would take into account the potential to develop the site for residential use when pricing the land.

Determine the highest and best use of the land.

3. ABC Ltd. acquired 5% equity shares of XYZ Ltd. for ₹ 10 crores in the year 20X1-20X2. The company is in process of preparing the financial statements for the year 20X2-20X3 and is assessing the fair value at subsequent measurement of the investment made in XYZ Ltd. Based on the observable input, ABC Ltd. identified a similar nature of transaction in which PQR Ltd. acquired 20% equity shares in XYZ Ltd. for ₹ 60 crores. The price of such transaction was determined on the basis of Comparable Companies Method (CCM)- Enterprise Value (EV) / EBITDA which was 8. For the current year, the EBITDA of XYZ Ltd. is ₹ 40 crores. At the time of acquisition, the valuation was determined after considering 5% of liquidity discount and 5% of non-controlling stake discount. What will be the fair value of ABC Ltd.'s investment in XYZ Ltd. as on the balance sheet date?

4. UK Ltd. is in the process of acquisition of shares of PT Ltd. as part of business reorganization plan. The projected free cash flows of PT Ltd. for the next 5 years are as follows:

(₹ in crores)

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
Cash flows	187.1	187.6	121.8	269	278.8
Terminal Value					3,965

The weightage average cost of capital of PT Ltd. is 11%. The total debt as on measurement date is ₹ 1,465 crores and the surplus cash & cash equivalent is ₹ 106.14 crores.

The total numbers of shares of PT Ltd. as on the measurement date is 8,52,84,223 shares. Determine value per share of PT Ltd. as per Income Approach.

5. You are a senior consultant of your firm and are in process of determining the valuation of KK Ltd. You have determined the valuation of the company by two approaches i.e. Market Approach and Income approach and selected the highest as the final value. However, based upon the discussion with your partner you have been requested to assign equal weights to both the approaches and determine a fair value of shares of KK Ltd. The details of the KK Ltd. are as follows:

Particulars	₹ in crore
Valuation as per Market Approach	5268.2
Valuation as per Income Approach	3235.2
Debt obligation as on Measurement date	1465.9

Surplus cash & cash equivalent	106.14
Fair value of surplus assets and Liabilities	312.4
Number of shares of KK Ltd.	8,52,84,223 shares

Determine the Equity value of KK Ltd. as on the measurement date on the basis of above details.

6. Comment on the following by quoting references from appropriate Ind AS.

(i) DS Limited holds some vacant land for which the use is not yet determined. The land is situated in a prominent area of the city where lot of commercial complexes are coming up and there is no legal restriction to convert the land into a commercial land.

The company is not interested in developing the land to a commercial complex as it is not its business objective. Currently the land has been let out as a parking lot for the commercial complexes around.

The Company has classified the above property as investment property. It has approached you, an expert in valuation, to obtain fair value of the land for the purpose of disclosure under Ind AS.

On what basis will the land be fair valued under Ind AS?

(ii) DS Limited holds equity shares of a private company. In order to determine the fair value' of the shares, the company used discounted cash flow method as there were no similar shares available in the market.

Under which level of fair value hierarchy will the above inputs be classified?

What will be your answer if the quoted price of similar companies were available and can be used for fair valuation of the shares?

7. On 1st January, 20X1, A Ltd assumes a decommissioning liability in a business combination. The reporting entity is legally required to dismantle and remove an offshore oil platform at the end of its useful life, which is estimated to be 10 years. The following information is relevant:

If A Ltd was contractually allowed to transfer its decommissioning liability to a market participant, it concludes that a market participant would use all of the following inputs, probability weighted as appropriate, when estimating the price it would expect to receive:

a. Labour costs

Labour costs are developed based on current marketplace wages, adjusted for expectations of future wage increases, required to hire contractors to dismantle and remove offshore oil platforms. A Ltd. assigns probability to a range of cash flow estimates as follows:

Cash Flow Estimates:	100 Cr	125 Cr	175 Cr
Probability:	25%	50%	25%

b. Allocation of overhead costs:

Assigned at 80% of labour cost

c. The compensation that a market participant would require for undertaking the activity and for assuming the risk associated with the obligation to dismantle and remove the asset. Such compensation includes both of the following:

i. Profit on labour and overhead costs:

A profit mark-up of 20% is consistent with the rate that a market participant would require as compensation for undertaking the activity

ii. The risk that the actual cash outflows might differ from those expected, excluding inflation:

A Ltd. estimates the amount of that premium to be 5% of the expected cash flows. The expected cash flows are 'real cash flows' / 'cash flows in terms of monetary value today'.

d. Effect of inflation on estimated costs and profits

A Ltd. assumes a rate of inflation of 4 percent over the 10-year period based on available market data.

e. Time value of money, represented by the risk-free rate: 5%

f. Non-performance risk relating to the risk that Entity A will not fulfill the obligation, including A Ltd.'s own credit risk: 3.5%

A Ltd, concludes that its assumptions would be used by market participants. In addition, A Ltd. does not adjust its fair value measurement for the existence of a restriction preventing it from transferring the liability.

You are required to calculate the fair value of the asset retirement obligation.

8. (i) Entity A owns 250 ordinary shares in company XYZ, an unquoted company. Company XYZ has a total share capital of 5,000 shares with nominal value of ₹ 10. Entity XYZ's after-tax maintainable profits are estimated at ₹ 70,000 per year. An appropriate price/earnings ratio determined from published industry data is 15 (before lack of marketability adjustment). Entity A's management estimates that the discount for the lack of marketability of company XYZ's shares and restrictions on their transfer is 20%. Entity A values its holding in company XYZ's shares based on earnings. Determine the fair value of Entity A's investment in XYZ's shares.

(ii) Based on the facts given in the aforementioned part (i), assume that, Entity A estimates the fair value of the shares it owns in company XYZ using a net asset valuation technique. The fair value of company XYZ's net assets including those recognised in its balance sheet and those that are not recognised is ₹ 8,50,000. Determine the fair value of Entity A's investment in XYZ's shares.

Answers

1. (i) If Market A is the principal market

If Market A is the principal market for the asset (i.e., the market with the greatest volume and level of activity for the asset), the fair value of the asset would be measured using the price that would be received in that market, after taking into account transport costs.

Fair Value will be

	₹
Price receivable	26
Less: Transportation cost	(2)
Fair value of the asset	24

(ii) If neither of the market is the principal market

If neither of the market is the principal market for the asset, the fair value of the asset would be measured using the price in the most advantageous market. The most advantageous market is the market that maximises the amount that would be received to sell the asset, after taking into account transaction costs and transport costs (i.e., the net amount that would be received in the respective markets).

	₹	₹
	Market A	**Market B**
Price receivable	26	25
Less: Transaction cost	(3)	(1)
Less: Transportation cost	(2)	(2)
Fair value of the asset	21	22

Since the entity would maximise the net amount that would be received for the asset in Market B i.e. ₹ 22, the fair value of the asset would be measured using the price in Market B.

Fair value

	₹
Price receivable	25
Less: Transportation cost	(2)
Fair value of the asset	23

2. The highest and best use of the land is determined by comparing the following:

- The value of the land as currently developed for industrial use (i.e., an assumption that the land would be used in combination with other assets, such as the factory, or with other assets and liabilities); and
- The value of the land as a vacant site for residential use, taking into account the costs of demolishing the factory and other costs necessary to convert the land to a vacant site. The value under this use would take into account risks and uncertainties about whether the entity would be able to convert the asset to the alternative use (i.e., an assumption that the land would be used by market participants on a stand-alone basis).

The highest and best use of the land would be determined on the basis of the higher of these values. In situations involving real estate appraisal, the determination of highest and best use might take into account factors relating to the factory operations (e.g., the factory's operating cash flows) and its assets and liabilities (e.g., the factory's working capital).

3. Determination of Enterprise Value of XYZ Ltd.

Particulars	**₹ in crore**
EBITDA as on the measurement date	40
EV/EBITDA multiple as on the date of valuation	8
Enterprise value of XYZ Ltd.	320

Determination of subsequent measurement of XYZ Ltd.

Particulars	**₹ in crore**
Enterprise Value of XYZ Ltd.	320
ABC Ltd.'s share based on percentage of holding (5% of 320)	16
Less: Liquidity discount & Non-controlling stake discount (5%+5%=10%)	(1.6)
Fair value of ABC Ltd.'s investment in XYZ Ltd.	14.4

4. Determination of equity value of PT Ltd.

(₹ in crore)

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
Cash flows	187.1	187.6	121.8	269	278.8
Terminal Value					3,965
Discount rate factor	0.9009	0.8116	0.7312	0.6587	0.5935
Free Cash Flow available to the firm	168.56	152.26	89.06	177.19	2,518.69
Total of all years					3,105.76
Less: Debt					(1,465)
Add: Cash & Cash equivalent					106.14
Equity Value of PT Ltd.					1,746.90
No. of Shares					85,284,223.0
Per Share Value					204.83

5. Equity Valuation of KK Ltd.

Particulars	Weights	(₹ in crore)
As per Market Approach	50	5268.2
As per Income Approach	50	3235.2
Enterprise Valuation based on weights (5268.2 x 50%) + (3235.2 x 50%)		4,251.7
Less: Debt obligation as on measurement date		(1465.9)
Add: Surplus cash & cash equivalent		106.14
Add: Fair value of surplus assets and liabilities		312.40
Enterprise value of KK Ltd.		3204.33
No. of shares		85,284,223
Value per share		375.72

6. (i) As per Ind AS 113, a fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The highest and best use of a non-financial asset takes into account the use of the asset that is physically possible, legally permissible and financially feasible, as follows:

(a) A use that is physically possible takes into account the physical characteristics of the asset that market participants would take into account when pricing the asset (eg the location or size of a property).

(b) A use that is legally permissible takes into account any legal restrictions on the use of the asset that market participants would take into account when pricing the asset (eg the zoning regulations applicable to a property).

(c) A use that is financially feasible takes into account whether a use of the asset that is physically possible and legally permissible generates adequate income or cash flows (taking into account the costs of converting the asset to that use) to produce an investment return that market participants would require from an investment in that asset put to that use.

Highest and best use is determined from the perspective of market participants, even if the entity intends a different use. However, an entity's current use of a non-financial asset is presumed to be its highest and best use unless market or other factors suggest that a different use by market participants would maximise the value of the asset.

To protect its competitive position, or for other reasons, an entity may intend not to use an acquired non-financial asset actively or it may intend not to use the asset according to its highest and best use. Nevertheless, the entity shall measure the fair value of a non-financial asset assuming its highest and best use by market participants.

In the given case, the highest best possible use of the land is to develop a commercial complex. Although developing a business complex is against the business objective of the entity, it does not affect the basis of fair valuation as Ind AS 113 does not consider an entity specific restriction for measuring the fair value.

Also, its current use as a parking lot is not the highest best use as the land has the potential of being used for building a commercial complex.

Therefore, the fair value of the land is the price that would be received when sold to a market participant who is interested in developing a commercial complex.

(ii) As per Ind AS 113, unobservable inputs shall be used to measure fair value to the extent that relevant observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date. The unobservable inputs shall reflect the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk.

In the given case, DS Limited adopted discounted cash flow method, commonly used technique to value shares, to fair value the shares of the private company as there were no similar shares traded in the market. Hence, it falls under Level 3 of fair value hierarchy.

Level 2 inputs include the following:

(a) quoted prices for similar assets or liabilities in active markets.

(b) quoted prices for identical or similar assets or liabilities in markets that are not active.

(c) inputs other than quoted prices that are observable for the asset or liability.

If an entity can access quoted price in active markets for identical assets or liabilities of similar companies which can be used for fair valuation of the shares without any adjustment, at the measurement date, then it will be considered as observable input and would be considered as Level 2 inputs.

7.

		Amount (In Crore)
Expected Labour Cost (Refer W.N.)		131.25
Allocated Overheads	(80% x 131.25 Cr)	105.00
Profit markup on Cost	(131.25 + 105) x 20%	47.25
Total Expected Cash Flows before inflation		**283.50**
Inflation factor for next 10 years (4%)	$(1.04)^{10}$ =1.4802	
Expected cash flows adjusted for inflation	283.50 x 1.4802	419.65
Risk adjustment - uncertainty relating to cash flows	(5% x 419.64)	20.98
Total Expected Cash Flows	(419.65+20.98)	440.63
Discount rate to be considered = risk-free rate + entity's non-performance risk	5% + 3.5%	8.5%
Expected present value at 8.5% for 10 years	**(440.63 / (1.085^{10}))**	**194.97**

Working Note:

Expected labour cost:

Cash Flows Estimates	**Probability**	**Expected Cash Flows**
100 Cr	25%	25 Cr
125 Cr	50%	62.50 Cr
175 Cr	25%	43.75 Cr
Total		**131.25 Cr**

8. **(i)** An earnings-based valuation of Entity A's holding of shares in company XYZ could be calculated as follows:

Particulars	Unit
Entity XYZ's after-tax maintainable profits (A)	₹ 70,000
Price/Earnings ratio (B)	15
Adjusted discount factor (C) (1- 0.20)	0.80
Value of Company XYZ (A) x (B) x (C)	₹ 8,40,000

Value of a share of XYZ = ₹ 8,40,000 ÷ 5,000 shares = ₹ 168

The fair value of Entity A's investment in XYZ's shares is estimated at ₹ 42,000 (that is, 250 shares x ₹ 168 per share).

(ii) Share price = ₹ 8,50,000 ÷ 5,000 shares = ₹ 170 per share.

The fair value of Entity A's investment in XYZ shares is estimated to be ₹ 42,500 (250 shares x ₹ 170 per share).

NOTES