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
## 4.66 Financial Reporting

### Ind AS 113

<table>
<thead>
<tr>
<th>Determine whether the item is in Scope of Ind AS 113</th>
<th>See Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish Parameters</td>
<td></td>
</tr>
<tr>
<td>Identify the Item being Measured</td>
<td>Identify the Unit of Account and Unit of Valuation</td>
</tr>
<tr>
<td>Select appropriate Valuation approaches and techniques</td>
<td></td>
</tr>
<tr>
<td>Market Approach</td>
<td>Income Approach</td>
</tr>
<tr>
<td>Determine Inputs to Value Fair Value</td>
<td></td>
</tr>
<tr>
<td>Level I</td>
<td>Level II</td>
</tr>
<tr>
<td>Measure Fair Value</td>
<td></td>
</tr>
<tr>
<td>Fair Value at Initial Recognition</td>
<td>Highest and Best Use</td>
</tr>
<tr>
<td>Disclose Information about Fair Value Measurements</td>
<td></td>
</tr>
</tbody>
</table>
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 Values 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 value rather than an entity specific prices 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/purchases otherwise.

3.2 OBJECTIVE

- Defines fair value
- Sets out in a single Ind AS a framework for measuring fair value; and
- Requires disclosures about fair value measurements

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.

<table>
<thead>
<tr>
<th>Required for</th>
<th>Applies to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement</td>
<td>Initial measurement and/or Subsequent Measurement</td>
</tr>
<tr>
<td>Disclosures</td>
<td>and/or</td>
</tr>
</tbody>
</table>

© The Institute of Chartered Accountants of India
Example

- 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 the Accounting Standard and hence one has to look at the respective standards itself to identify the process to calculate Fair Values of the items of the 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.

<table>
<thead>
<tr>
<th>The price that would be received to sell an asset or paid to transfer a liability</th>
<th>In an orderly transaction</th>
<th>Between market participants</th>
<th>At the measurement date</th>
</tr>
</thead>
</table>

© The Institute of Chartered Accountants of India
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

### 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.

<table>
<thead>
<tr>
<th>To consider in Fair Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entity specific restrictions</td>
</tr>
<tr>
<td>Asset / liability specific restrictions</td>
</tr>
</tbody>
</table>

**Example : 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 : 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 and hence this condition will be considered while evaluating fair value of the car.

### 3.6 UNIT OF ACCOUNT

<table>
<thead>
<tr>
<th>Unit of Account</th>
<th>An Asset or a Liability Is aggregated or disaggregated</th>
<th>For Recognition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>For Measurement</td>
</tr>
</tbody>
</table>

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.

**Example**

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.

**Example**

In order to evaluate fair values of assets to identify impairment as per Ind AS 36, which requires to measure such fair value at cash generating units, hence group of assets will be used in order to find fair values for 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 belongs 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 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

Share of a company which is listed at BSE and NYSE has 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 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 which will deduct expenses associated with such sale in most advantageous market.

Example
Diamond (a commodity) has got a domestic market where the prices are lesser comparing 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 at domestic market only i.e. 90% and balance 10% only can be sold via export. The highest level of activities with highest volume is being done at domestic market. Hence, principal market for diamond would be domestic market. Export prices are more than the prices in the principal market and it would give highest return comparing to the domestic market. Therefore, the export market would be considered as 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 most advantageous market in their best economic interest i.e.

• They should be independent and not a related party. 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
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.

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.
**Example**

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 INR 100. Since the transport cost is not a transaction cost and it is not specific to any transaction but it is inherent cost which requires 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.

<table>
<thead>
<tr>
<th>Transaction Cost</th>
<th>Principal market</th>
<th>Most advantageous market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport cost</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

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 (i.e., the contractual terms) are changed.
Fair valuation in case of non-financial assets especially buildings and other fixed assets 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 (e.g., 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.

#### Example

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 use of this land before concluding its fair value. The land could be used to make a commercial palace, which could be more in value comparing when it is used for business purposes. The commercial
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 stand alone 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

To find the Fair Value of a customer relations where a right to receive all future technological updates/ researches are being provided as complementary (which are in a way other intangible assets) to the customers. The customer relationship would be valued together with the research/updates as it is likely to have less or no value for the customer relations without considering such technological updates/ researches which are 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 (e.g., equity interests issued as consideration in a business combination) is transferred to a market participant at the measurement date.

Often 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 etc., 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.

<table>
<thead>
<tr>
<th>Observable Inputs</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unobservable Inputs</td>
<td>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.</td>
</tr>
</tbody>
</table>

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

When direct 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 on 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.
Example:
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 certain asset/ liability.

Example
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.

Example
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.

Example
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.
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
An unquoted investment would require being Fair Valued which can be done either taking similar entity quoted prices with appropriate adjustments or a valuation of business using DCF or some other techniques. 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.

Example

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.

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

An Entity has estimated its next year earning (cash flow) based on certain probability which can be mentioned below

<table>
<thead>
<tr>
<th>Year</th>
<th>Possible cash flow (INR)</th>
<th>Probability</th>
<th>Probability weighted cash flows</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>700</td>
<td>20%</td>
<td>140</td>
</tr>
</tbody>
</table>

© The Institute of Chartered Accountants of India
4.84 FINANCIAL REPORTING

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>800</td>
<td>40%</td>
<td>320</td>
</tr>
<tr>
<td>3</td>
<td>900</td>
<td>40%</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>Total expected Cash Flow</td>
<td></td>
<td>820</td>
</tr>
<tr>
<td></td>
<td>Risk free rate</td>
<td></td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Present value of Cash Flow (1 year)</td>
<td></td>
<td>820/(1.06) = INR 773.58</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Markets (by nature)</th>
<th>Prices (observable)</th>
<th>Rationale</th>
<th>Ind AS 113 compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange Markets</td>
<td>Closing prices</td>
<td>Readily available</td>
<td>Yes</td>
</tr>
<tr>
<td>Dealer Market</td>
<td>Bid &amp; Ask prices</td>
<td>Readily available than closing prices</td>
<td>Yes</td>
</tr>
<tr>
<td>Brokered Market</td>
<td>Buy &amp; Sell order matching, commercial and residential markets</td>
<td>Broker knows better prices from both buy &amp; Sell side</td>
<td>Yes</td>
</tr>
<tr>
<td>Principal to principal Markets</td>
<td>Negotiated prices with no intermediary</td>
<td>Little information available in market</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### 3.16 INPUTS TO VALUATION TECHNIQUES

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

© The Institute of Chartered Accountants of India
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**

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.

### 3.16.1 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
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).

3.16.2 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.

Example
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.

Example
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.

3.16.3 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).

Example : 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 Fair value input.

Example : 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.
3.17 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 –

<table>
<thead>
<tr>
<th>Fair Value Measurement</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recurring</td>
<td>Non-recurring</td>
<td>Disclosure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 3</td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 3</td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 3</td>
</tr>
<tr>
<td>Fair value at each reporting date</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reasons for measurement</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of hierarchy</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Transfers</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valuation techniques</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If change in valuation techniques</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative info about significant unobservable inputs</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconciliation of opening &amp; closing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrealized gains/losses from remeasurement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valuation process &amp; policies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitivity to changes in unobservable inputs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If highest &amp; best use differs from actual</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
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 crore in the year 20X1-X2. The company is in process of preparing the financial statements for the year 20X2-X3 and is assessing the fair value at subsequent measurement of the investment made in XYZ Ltd. Based on the observable input, the ABC Ltd. identified a similar nature of transaction in which PQR Ltd. acquired 20% equity shares in XYZ Ltd. for ₹ 60 crore. 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 crore. 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 flow of PT Ltd. for the next 5 years are as follows:

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flows</td>
<td>187.1</td>
<td>187.6</td>
<td>121.8</td>
<td>269</td>
<td>278.8</td>
</tr>
<tr>
<td>Terminal Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,965</td>
</tr>
</tbody>
</table>

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

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:

<table>
<thead>
<tr>
<th>Particulars</th>
<th>₹ in crore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valuation as per Market Approach</td>
<td>5268.2</td>
</tr>
<tr>
<td>Valuation as per Income Approach</td>
<td>3235.2</td>
</tr>
<tr>
<td>Debt obligation as on Measurement date</td>
<td>1465.9</td>
</tr>
<tr>
<td>Surplus cash &amp; cash equivalent</td>
<td>106.14</td>
</tr>
<tr>
<td>Fair value of surplus assets and Liabilities</td>
<td>312.4</td>
</tr>
<tr>
<td>Number of shares of KK Ltd.</td>
<td>8,52,84,223 shares</td>
</tr>
</tbody>
</table>

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

**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

<table>
<thead>
<tr>
<th></th>
<th>₹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price receivable</td>
<td>26</td>
</tr>
<tr>
<td>Less: Transportation cost</td>
<td>(2)</td>
</tr>
<tr>
<td>Fair value of the asset</td>
<td>24</td>
</tr>
</tbody>
</table>

(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).

<table>
<thead>
<tr>
<th></th>
<th>₹</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Market A</td>
<td>Market B</td>
</tr>
<tr>
<td>Price receivable</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td>Less: Transaction cost</td>
<td>(3)</td>
<td>(1)</td>
</tr>
<tr>
<td>Less: Transportation cost</td>
<td>(2)</td>
<td>(2)</td>
</tr>
<tr>
<td>Fair value of the asset</td>
<td>21</td>
<td>22</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>₹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price receivable</td>
<td>25</td>
</tr>
<tr>
<td>Less: Transportation cost</td>
<td>(2)</td>
</tr>
<tr>
<td>Fair value of the asset</td>
<td>23</td>
</tr>
</tbody>
</table>

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.**

<table>
<thead>
<tr>
<th>Particulars</th>
<th>₹ in crore</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBITDA as on the measurement date</td>
<td>40</td>
</tr>
<tr>
<td>EV/EBITDA multiple as on the date of valuation</td>
<td>8</td>
</tr>
<tr>
<td>Enterprise value of XYZ Ltd.</td>
<td>320</td>
</tr>
</tbody>
</table>

**Determination of subsequent measurement of XYZ Ltd.**

<table>
<thead>
<tr>
<th>Particulars</th>
<th>₹ in crore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Value of XYZ Ltd.</td>
<td>320</td>
</tr>
<tr>
<td>ABC Ltd.’s share based on percentage of holding (5% of 320)</td>
<td>16</td>
</tr>
<tr>
<td>Less: Liquidity discount &amp; Non-controlling stake discount (5%+5%=10%)</td>
<td>(1.6)</td>
</tr>
<tr>
<td>Fair value of ABC Ltd.’s investment in XYZ Ltd.</td>
<td>14.4</td>
</tr>
</tbody>
</table>

4. **Determination of equity value of PT Ltd.**

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

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Weights</th>
<th>₹ (in crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>As per Market Approach</td>
<td>50</td>
<td>5268.2</td>
</tr>
<tr>
<td>As per Income Approach</td>
<td>50</td>
<td>3235.2</td>
</tr>
<tr>
<td>Enterprise Valuation based on weights (5268.2 x 50%) + (3235.2 x 50%)</td>
<td></td>
<td>4251.7</td>
</tr>
<tr>
<td>Less: Debt obligation as on measurement date</td>
<td></td>
<td>(1465.9)</td>
</tr>
<tr>
<td>Add: Surplus cash &amp; cash equivalent</td>
<td></td>
<td>106.14</td>
</tr>
<tr>
<td>Add: Fair value of surplus assets and liabilities</td>
<td></td>
<td>312.40</td>
</tr>
<tr>
<td>Enterprise value of KK Ltd.</td>
<td></td>
<td>3204.33</td>
</tr>
<tr>
<td>No. of shares</td>
<td></td>
<td>85,284,223</td>
</tr>
<tr>
<td>Value per share</td>
<td></td>
<td>375.72</td>
</tr>
</tbody>
</table>