

INDAS 113 – FAIR VALUE MEASUREMENT

(TOTAL NO. OF QUESTIONS –7)

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RTPs QUESTIONS

Q1 (Nov 19)

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 a lot of commercial complexes are coming up and there is no legal restriction to convert the land into 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 a 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?

SOLUTION

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 (e.g. 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 (e.g. 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 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 a 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 the 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.

Q2 (Nov. 21 & Also Newly Added in ICAI May 22 Module)

On 1st January, 20X1, A Ltd assumed 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.

SOLUTION

Particulars	Workings	Amount (In Cr)
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 419.65)	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 / (1.08510))	194.88

Working Note:

Expected labour cost:

Cash Flows Estimates	Probability	Expected Cash Flows
100 Cr	25%	25.00 Cr
125 Cr	50%	62.50 Cr
175 Cr	25%	43.75 Cr
Total		131.25 Cr

Q3 (Nov. 21 & Also Newly Added in ICAI May 22 Module)

- 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 Rs. 10. Entity XYZ's after-tax maintainable profits are estimated at Rs. 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 Rs. 8,50,000. Determine the fair value of Entity A's investment in XYZ's shares.

SOLUTION

Particulars	Unit
Entity XYZ's after-tax maintainable profits (A)	Rs. 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)	Rs. 8,40,000

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

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

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

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

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

MTP QUESTIONS

Q4 (August 18 – 4 Marks) – (Similar to Q6)

An asset is sold in 2 different active markets (a market in which a transaction for the asset or liability takes place with sufficient frequency and volume to provide pricing information on an ongoing basis) 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 sale price of the asset is Rs. 26, transaction cost is Rs. 3 and the cost to transport the asset to Market A is Rs. 2 (i.e., the net amount that would be received is Rs. 21).

In Market B:

The sale price of the asset is Rs. 25, transaction cost is Re. 1 and the cost to transport the asset to Market B is Rs. 2 (i.e., the net amount that would be received is Rs. 22).

Determine the fair value of the asset by supporting your answer with proper reason.

SOLUTION

If Market A is the principal market for the sale of 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 cost of Rs. 24. The price in the principal (or most advantageous) market used to measure the fair value of the asset or liability shall not be adjusted for transaction costs.

If neither market is the principal market for the sale of assets, 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 by selling the asset, after taking into account transport cost (i.e., the net amount that would be received in the respective markets).

Since the entity would maximise the net amount that would be received for the asset in Market B, the fair value of the asset would be measured using the price in that market ie. sale of asset Rs. 25 less transport cost Rs. 2, resulting in a fair value measurement of Rs. 23.

QUESTIONS FROM PAST EXAM PAPERS

Q5 (November 18 – 5 Marks)

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 Rs. 78, transaction costs in that market are Rs. 9 and the costs to transport the asset to that market are Rs. 6.

In Market B:

The price that would be received is Rs. 75, transaction costs in that market are Rs. 3 and the costs to transport the asset to that market are Rs. 6.

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.

SOLUTION

(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 of the asset will be

	Rs
Price receivable	78
Less: Transportation cost	(6)
Fair value of the asset	72

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

If neither of the markets 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).

Determination of most advantageous market:

	Rs	Rs
	Market A	Market B
Price receivable	78	75
Less: Transaction cost	(9)	(3)
Less: Transportation cost	(6)	(6)
Fair value of the asset	63	66

Since the entity would maximise the net amount that would be received for the asset in Market B i.e. Rs66, the fair value of the asset would be measured using the price in Market B.

Fair value of the asset will be

	Rs
Price receivable	75
Less: Transportation cost	(6)
Fair value of the asset	69

Q6 (November 19 – 8 Marks)

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

In the Mumbai market, the price that would be received is Rs 290, transaction costs in that market are Rs 40 and the costs to transport the asset to that market are Rs 30. Thus, the net amount that would be received is Rs 220.

In the Kolkata market the price that would be received is Rs 280, transaction costs in that market are Rs 20 and the costs to transport the asset to that market are Rs 30. Thus, the net amount that would be received in Kolkata market is Rs 230.

- (i) What should be the fair value of the asset if Mumbai Market is the principal market? What should be fair value if none of the markets is a principal market?
- (ii) The net realization after expenses is more in the export market, say Rs 280, but the Government allows only 15% of the production to be exported out of India. Discuss what would be fair value in such a case.

SOLUTION

i)

a) If Mumbai Market is the principal market

If Mumbai Market 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 transportation costs.

Fair value will be

	Rs
Price receivable	290
Less: Transportation cost	(30)
Fair value of the asset	260

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

If neither of the markets 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 transportation costs (i.e., the net amount that would be received in the respective markets).

	Rs	Rs
	Mumbai Market	Kolkata Market
Fair value of the asset as per the question	220	230

Since the entity would maximise the net amount that would be received for the asset in Kolkata Market i.e., Rs 230, the fair value of the asset would be measured using the price in Kolkata Market.

Fair value in such a case would be

	Rs
Price receivable	280
Less: Transportation cost	(30)
Fair value of the asset	250

ii) Export prices are more than the prices in the principal market and it would give the highest return compared to the domestic market. Therefore, the export market would be considered as the most advantageous market. But since the Government has capped the export, maximum upto 15% of total output, maximum sale activities are being done at domestic market only i.e. 85%. Since the highest level of activities with the highest volume is being done in the domestic market, the principal market for assets would be the domestic market. Therefore, the prices received in the domestic market would be used for fair valuation of assets.

Q7 (December 21 – 4 Marks)

Mr Q has determined the valuation of Rhythm Ltd by two approaches i.e. Market Approach and Income approach and select the highest as the final value but the management of Rhythm Ltd is not satisfied and requests you to determine the fair value of shares of Rhythm Ltd by assigning the weights to Market Approach and Income approach in the ratio of 7:3.

Determine the Equity value of on the basis of below details:

Particulars	Rs. in crore
Valuation as per Market Approach	35,82,380
Valuation as per Income Approach	21,99,930
Debt obligation as on Measurement date	9,96,812
Surplus cash & cash equivalent	2,10,388
Fair value of surplus assets and Liabilities	3,12,449
Number of shares of KK Ltd.	1,06,680 shares

SOLUTION

Equity Valuation of Rhythm Ltd.

Particulars	Weights	(Rs in crore)
As per Market Approach	70	35,82,380
As per Income Approach	30	21,99,930
Enterprise Valuation based on weights (35,82,380 x 70%) + (21,99,930 x 30%)		56,75,312
Less: Debt obligation as on measurement date		(9,96,812)
Add: Surplus cash & cash equivalent		2,10,388
Add: Fair value of surplus assets and liabilities		3,12,449
Enterprise value of Rhythm Ltd.		52,01,337
No. of shares		1,06,680
Value per share		48.75