

**A-1****(a) Valuation of XL's shares****(i) P/E ratio valuation**

P/E ratio of PL	{Market price per share Rs. 40 – Earnings per share Rs. 5.5 (W1)}	7.27
P/E ratio of XL	(7.27x67% - refer note below)	4.87
Value of XL's shares	(4.87x7 (W1)x40) Rs. in million	<u>1,364</u>

Note: P/E ratio for an unquoted company is normally taken at 50% to 67% of P/E ratio of a quoted company engaged in similar business. In view of better earnings per share and growth rate estimated P/E ratio for XL may be taken at 67% of P/E ratio of PL.

**(ii) Dividend yield valuation**

{{(168x1.05) - (0.15-0.05}}	Rs. in million	<u>1,764</u>
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**W1 Earnings per share**

		XL	PL
Profit attributable to ordinary shareholders			
(XL: 292-12) / (PL: 600-15)	(Rs. in million)	280.00	585.00
Weighted average no. of ordinary shares (400/10)/W2	(Shares in million)	40.00	106.33
Earnings per ordinary share	Rs.	7.00	5.5

**W2 PL - Weighted average no. of ordinary shares for EPS**

Description	Date	Actual no. of shares in million	Time	Bonus adjustment factor (W3)	W. average shares in million
		(A)	(B)	(Q)	(A)x(B) x (Q)
No. of ordinary shares	1-Oct-2010	100	6/12	1.026667	51.33
Issue of right shares	1-Apr-2011	10			
		110	6/12		55.00
Total					106.33
<b>OR</b>					
No. of ordinary shares	1-Oct-2010	100	1	1.026667	102.67
Issue of right shares (10x25/35)	1-Apr-2011	7.14	6/12	1.026667	3.66
Total					106.33
W3 Bonus adjustment factor		35/((100x35+10x25)/110 }			1.026667

**(b) Weaknesses of share valuation methods****(i) P/E ratio valuation**

- It is not appropriate to apply share price of a particular date to work out P/E ratio of PL.
- Market price of share is dependent on many factors and P/E ratio is just one such factor.
- The decision to assume P/E ratio of an unquoted company to be 50% to 67% of that of a quoted company is quite subjective.

**(ii) Dividend yield valuation**

- The cost of capital of a company depends on its capital structure. Therefore, the assumption that cost of capital of all the companies is same is questionable.
- Current year's dividend may not be representative base from which to start.
- Accuracy of estimated future growth at a constant rate is questionable.

**A-2**

## a) Price / earnings ratio

This ratio relates the earnings per share to the price paid for each share and thus indicates the number of years it will take to recoup the purchase price of the shares in terms of the current level of earnings.

Here the difficulty relates to finding a quoted company in a similar trade, of a similar size and risk and with similar market prospects, to provide a guide to a reasonable P/E ratio.

The data for the three public companies indicate average P/E ratios in the range 8 to 10. In the absence of information as to the comparability of Alpha Co. Ltd with any of these companies, a fair P/E ratio would be around 9.

However, to take account of the lack of marketability of the shares of an un-quoted company the P/E ratio should be reduced say 75% of the P/E ratio of a similar quoted company i.e. to 75% x 9 = 6.75.

As the P/E ratio reflects what the market believes will be the company's future earnings. It would appear sensibly to apply the ratio to the average of future profits over the next five years calculated as follows: -

Year	Multiple of	Rs.
1		85,000
2	1.05 of year 1	89,250
3	1.05 of year 2	93,713
4	1.05 of year 3	98,399
5	1.05 of year 4	103,319
Total		<u>469,681</u>
Average	469,681/5	<u>93,936</u>
	Earnings per share	<u>93,936</u>
		200,000
		46.97 paisa
	Value of ordinary share	6.75 x 46.97
		<u>3.17 Rs.</u>

## b) Dividend Yield

The dividend yield relates the dividend per share to the price per share and will therefore vary according to the dividend policy of the company, where a majority shareholding is being acquired or where a whole business is being bought or sold then this method will not be appropriate in valuing the shares. In these cases the purchaser will acquire overall control and will be more concerned with the underlying earnings and not the amount of distributed profit.

The average dividend yields of three public companies operating in the same market are all about 17.

Assuming the level of dividend paid in the past will continue into the future, the future dividend per share will be.

30,000/200,000	15 paisa
The value of an ordinary share	100/17 x 15
	88 paisa per share

## c) Balance sheet values

A calculation of the net assets per share based on the net book values of assets appearing in the balance sheet provides a quick and simple method of valuing a company's shares. However, such a valuation is likely to give poor results. The balance sheet may include items such as formation or preliminary expenses, which although included in net assets have no real to the business. But main reason for the failure of this method results from fixed assets being included in the balance sheet on an historic cost accounting basis. Where such assets were brought several years ago, their current values may as a result of inflation, generally exceed the balance sheet figure and consequently the share valuation will be depressed.

Share capital	200,000
Reserves	595,000
Total	795,000
Net asset per share	795,000/ 200,000 Rs. 3.98

d) Net assets valuation

As in the previous method, a net assets valuation values shares by reference to the underlying net assets of the company. However, it represents an improvement on the previous method as the assets are now included at their current values. The assets can then be valued on the presumption that they will be retained for use in the business rather than on a liquidation basis. A disadvantage of this valuation basis is that it ignores the company's future earnings prospects.

	Rs.	Rs.
Fixed asset valuation		
Land and building		610,000
Plant and equipment		288,000
Motor vehicles		102,000
		<u>1,000,000</u>
Net current assets		293,000
		<u>1,293,000</u>
Less: current liabilities	180,000	
Loan	150,000	330,000
Net assets		<u>963,000</u>
Net assets per share		963,000/200,000 4.82 Rs

Notes: -

- 1 Preliminary expenses have been ignored as having no real value to the business.
- 2 It has been assumed that the balance sheet figures for debtors and stock are equal to the current market values of these assets,

e) Super profit valuation

The previous method failed to take into account the future earnings potential of the business. The super profits or dual capitalization method overcomes this problem by attempting to arrive at a valuation of the goodwill of the company. Goodwill represents the ability to earn profits in excess of those expected from the tangible assets employed in that particular type of business.

	Rs.	Rs.
Average future profits		93,936
Less: expected profits on tangible assets @12.5% x 963,000		<u>120,375</u>
Super profit		(26,439)
Capitalization at a rate equal to the expected return on non-		(151,080)

tangible assets i.e. 17.5% (26439x100/17.5

Net tangible assets	963,000
Add: goodwill	<u>(151,080)</u>
	<u>811,920</u>
Value per share (811,920/200,000)	4.06

Note: - as can be seen from the above calculation the goodwill figure is negative and this must throw doubt on whether such calculation is relevant in this particular case. The company is therefore, not achieving its target rate of return on its tangible assets or capital employed.

f) Present value of future cash flows

This method differs from those dealt above, in that it attempts to produce a share valuation by looking at future cash flows rather than future profits. The arrangement in favor of future cash flows assumes that a shareholder's willingness to invest in a company will depend on the future stream of dividends, such dividends being paid out of future cash flows.

Calculation of present value of future cash flows: -

<b>year</b>	<b>Cash flow</b>	<b>Discount factor @17.5%</b>	<b>PV (Rs.)</b>
1	100,000	0.85	85,000
2	120,000	0.72	86,400
3	140,000	0.62	86,800
4	100,000	0.52	52,000
5	150,000	0.45	<u>67,500</u>
			<u>377,700</u>

Value per share  $377,700/200,000=1.89$