
Answers

1 (a) Report to the Board of Directors, Mlima Co

Initial public listing: price range and implications

This report considers a range of values of Mlima Co and possible share price, based on 100 million issued shares in preparation of the initial public listing. The assumptions made in determining the value range and the likelihood of the unsecured bond holders accepting the 10% equity-for-debt swap offer are discussed. Alternative reasons for the listing and reasons for issuing the share at a discount are evaluated.

Mlima Co cost of capital explanation

Ziwa Co's ungeared cost of equity represents the return Ziwa Co's shareholders would require if Ziwa Co was financed entirely by equity and had no debt. The return would compensate them for the business risk undertaken by the company.

This required rate of return would compensate Mlima Co's shareholders as well because, since both companies are in the same industry, they face the same business risk. This rate is then used as Mlima Co's cost of capital because of the assumption that Mlima Co will not issue any debt and faces no financial risk. Therefore its cost of equity (ungeared) is its cost of capital.

Mlima Co Estimated Value

Based on a cost of capital of 11% (appendix 1), the value of Mlima Co is estimated at \$564.3m (appendix 2), prior to considering the impact of the Bahari project. The value of the Bahari project, without taking into account the benefits of the tax shield and the subsidies, does not exceed the initial investment. With the benefits of the tax shield and subsidies, it is estimated that the project will generate a positive net present value of \$21.5m (appendix 3). Taking the Bahari project into account gives a value for Mlima Co at just under \$586m.

Possible share price (100m shares)	Without the Bahari project	With the Bahari project
At full value	\$5.64/share	\$5.86/share
With 20% discount	\$4.51/share	\$4.69/share

Unsecured bond holders (equity-for-debt swap)

The current value of the unsecured bond is estimated at \$56.8m (appendix 4) and if the unsecured bond holders are to be offered a 10% equity stake in Mlima Co post-listing, then only the share price at \$5.86 would be acceptable to them. If the listing is made at the lowest price of \$4.51/share, then they would need to be offered around a 12.6% equity stake ($\$56.8m / \$4.51 = 12.594m$).

The value of the bond is based on a flat yield curve (or yield to maturity) of 7%, which is the rate at which Mlima Co can borrow funds and therefore its current yield. A more accurate method would be to assess the yield curve based on future risk-free rates and credit spreads for the company.

Assumptions

The main assumptions made are around the accuracy of the information used in estimating the values of the company and the project. For example, the value of the company is based on assumptions of future growth rates, profit margins, future tax rates and capital investment. The basis for estimating the future growth rates and profit margins on past performance may not be accurate. With the Bahari project, for example, projections of future cash flows are made for 15 years and the variability of these has been estimated. Again, the reasonableness of these estimates needs to be assessed. Are they, for example, based on past experience and/or have professional experts judged the values?

The cost of capital is estimated based on a competitor's ungeared cost of equity, on the basis that Mlima Co is in a similar line of business and therefore faces similar business risk. The financial risk element has been removed since it has been stated that Mlima Co is not looking to raise extra debt finance. However, it is possible that the business risks faced by Mlima Co and that faced by Ziwa Co, the competitor, are not the same. Accepting the Bahari project would also change the risk profile of Mlima Co and therefore its discount rate.

The values are based on the Bahari government fulfilling the subsidised loan concession it has offered. Mlima Co needs to consider the likelihood of this concession continuing for the entire 15 years and whether a change of government may jeopardise the agreement. The political and other risks need to be assessed and their impact assessed.

It has been assumed that the underwriting and other costs involved with the new listing are not significant or have been catered for, before the assessment of the cash flows. This assumption needs to be reviewed and its accuracy assessed.

Reasons for the public listing

The main reason given for the public listing is to use the funds raised to eliminate the debt in the company. There are other reasons why a company may undertake a public listing. These include: gaining a higher reputation by being listed on a recognised stock exchange and therefore reducing the costs of contracting with stakeholders; being able to raise funds more easily in the future to undertake new projects; the listing will provide the current owners with a value for their equity stake; and the listing may enable the current owners to sell their equity stakes and gain from the value in the organisation.

Issuing shares at a discount

Issuing only 20% of the share capital to the public at the initial listing would make them minority shareholders effectively. As such, their ability to influence the decision-making process in the company would be severely curtailed, since even if all the new investors voted as a bloc against a decision, they would not be able to overturn it. The discounted share price would reflect the additional risk of investing in a company as a minority shareholder. In this case, the position of the unsecured bond holders is important. If the unsecured bond holders, holding between 10% and 12.6% of the share capital in an equity-for-debt swap, are included with the new investors, then the equity stake rises to 30%–32.6%. In such a case, shareholders, as a bloc, would have a significant influence on the company's decisions. The question that should be asked is whether the current unsecured bond holders are more closely aligned to the interests of the current owners or to the interests of the new investors.

The second reason for issuing shares at a discount is to ensure that they do all get sold and as a reward for the underwriters. Research suggests that, normally, for new listings, shares are issued at a discount and the price of such shares rises immediately after launch.

Conclusion

The report and the calculations in the appendices suggest a price range for the listing of between \$4.51 and \$5.86 per share, depending on whether or not the Bahari project is undertaken, the discount at which the shares are issued and the assumptions made. It is recommended that Mlima Co should consult its underwriters and potential investors about the possible price they would be willing to pay before making a final decision (known as book-building).

If 20 million shares are offered to the public for \$4.51 each, this will result in total funds raised of just over \$90 million. If then \$80 million are spent in paying for the secured bond, just over \$10 million liquid funds remain. Therefore, Mlima Co needs to consider whether issuing the shares at a discount would ensure sufficient liquid funds are available for it to continue its normal business. In addition to this, the Bahari investment may result in a change in the desired capital structure of the company and have an impact on the cost of capital. Finally, being listed will result in additional listing costs and annual costs related to additional reporting requirements.

These factors should be balanced against the benefits of undertaking the new listing before a final decision is made.

Report compiled by:

Date:

APPENDICES

Appendix 1: Mlima Co, cost of capital

Ziwa Co

MV debt = \$1,700m x 1.05 = \$1,785m

MV equity = 200m x \$7 = \$1,400m

Ziwa Co, ungeared K_e

$K_{e_g} = K_{e_u} + (1 - t)(K_{e_u} - K_d) D/E$

16.83% = $K_{e_u} + 0.75 \times (K_{e_u} - 4.76\%) \times 1,785/1,400$

16.83% + 4.55% = 1.9563 x K_{e_u}

$K_{e_u} = 10.93\%$ (say 11%)

Appendix 2: Mlima Co, estimate of value prior to Bahari project

Value based on future free cash flows

Historic mean sales revenue growth = $(389.1/344.7)^{1/2} - 1 = 0.625$ or 6.25%

Next four years annual growth rate of sales revenue = 120% of 6.25% = 7.5%

Thereafter 3.5% of cash flows per annum

Operating profit margin (approx) = $58.4/389.1 = 54.9/366.3 = 51.7/344.7 = 15\%$

Year (in \$ millions)	1	2	3	4
Sales revenue	<u>418.3</u>	<u>449.7</u>	<u>483.4</u>	<u>519.7</u>
Operating profit	62.7	67.5	72.5	78.0
Less taxation (25%)	(15.7)	(16.9)	(18.1)	(19.5)
Less additional capital investment (30c per \$1 change in sales revenue)	<u>(8.8)</u>	<u>(9.4)</u>	<u>(10.1)</u>	<u>(10.9)</u>
Free cash flows	<u>38.2</u>	<u>41.2</u>	<u>44.3</u>	<u>47.6</u>
PV of free cash flows (11%)	<u>34.4</u>	<u>33.4</u>	<u>32.4</u>	<u>31.4</u>
PV first four years			\$131.6m	
PV after four years $(47.6 \times 1.035)/(0.11 - 0.035) \times 1.11^{-4}$			\$432.7m	
Value of company			<u>\$564.3m</u>	

Appendix 3: Value of the Bahari project

Base case present value

Year	Free Cash flows (in \$ millions)	PV (11%) (in \$ millions)
1	4.0	3.6
2	8.0	6.5
3	16.0	11.7
4	18.4	12.1
5	21.2	12.6
6 to 15	21.2	**74.0
Total		<u>120.5</u>

** The free cash flows in years 6 to 15 are an annuity for 10 years at 11%, then discounted back for five years: $21.2 \times 5.889 \times 0.593 = 74.0$

PV of the tax shield and subsidy

Annuity factor (7%, 15 years) = 9.108

Annual tax shield benefit interest paid = $3\% \times \$150\text{m} \times 25\% = \1.1m

Subsidy benefit = $4\% \times \$150\text{m} \times (1 - 25\%) = \4.5m

PV of tax shield and subsidy benefit = $5.6 \times 9.108 = \$51.0\text{m}$

Adjusted present value = $\$120.5\text{m} + \$51.0\text{m} - \$150.0\text{m} = \21.5m

Appendix 4: Estimated value of the unsecured bond

Assume a flat yield or yield to maturity of 7%

Annual coupon interest = $\$5.2\text{m} (13\% \times \$40\text{m})$

10-year annuity at 7% = 7.024; Discount factor (10 years, 7%) = 0.508

Bond value = $\$5.2\text{m} \times 7.024 + \$40\text{m} \times 0.508 = \56.8m

- (b) It is likely that Mlima Co's actions will be scrutinised more closely in the run up to the listing and once it has been listed. In both the situations, the company should consider the action it should take based on its ethical and accountability code. Most major corporations now publicise such codes of behaviour and would consult these in cases of ethical and/or accountability difficulties.

With the first situation concerning the relocation of the farmers, Mlima Co would consult its ethical code to judge how far its responsibility lay. It may take the view that the matter is between the farmers and the government, and it is not directly or indirectly responsible for the situation. In any case, it is likely that the mining rights will be assigned to another company, should Mlima Co decide to walk away from the deal. It is unlikely that, even if Mlima Co did not agree to the offer, the plight of the farmers would cease.

Instead, Mlima Co may decide to try to influence the government with respect to the farmers by urging the government to keep the community together and offer the farmers better land. Mlima Co may also decide to offer jobs and training to farmers who decide not to leave.

With the second situation concerning the Bahari president and Mlima Co's CEO, whilst it would make good business sense to forge strong relationships as a means of competitive advantage, Mlima Co should ensure that the negotiation was transparent and did not involve any bribery or illegal practice. If both the company and Bahari government can demonstrate that they acted in the best interests of the company and the country respectively, and individuals did not benefit as a result, then this should not be seen in a negative light.

Mlima Co needs to establish a clear strategy of how it would respond to public scrutiny of either issue. This may include actions such as demonstrating that it is acting according to its ethical code, pre-empting media scrutiny by releasing press statements, and using its influence to ensure the best and correct outcome in each case for the stakeholders concerned.

(Note: Credit will be given for alternative, relevant approaches to the calculations, comments and suggestions/recommendations)

- 2 (a) An acquisition creates synergy benefits when the value of the combined entity is more than the sum of the two companies' values. Synergies can be separated into three types: revenue synergies which result in higher revenues for the combined entity, higher return on equity and a longer period when the company is able to maintain competitive advantage; cost synergies which result mainly from reducing duplication of functions and related costs, and from taking advantage of economies of scale; financial synergies which result from financing aspects such as the transfer of funds between group companies to where it can be utilised best, or from increasing debt capacity.

In this scenario, the following synergy benefits may arise from the two companies coming together. Financial synergies may be available because Strand Co does not have the funds to innovate new products. On the other hand, Hav Co has cash reserves available. It may be possible to identify and quantify this synergy based on the projects that can be undertaken after the acquisition, but would have been rejected before, and their corresponding net present value. Furthermore, as the company

increases in size, the debt capacity of the combined company may increase, giving it additional access to finance. Finally, the acquisition may result in a decrease in the cost of capital of the combined company.

Cost synergies may arise from the larger company being able to negotiate better terms and lower costs from their suppliers. And there may be duplication of functional areas such as in research and development and head office which could be reduced and costs saved. These types of synergies are easier to identify and quantify but would be more short-lived. Therefore, if the markets are going to be positive about the acquisition, Hav Co will need to show where more long-term synergies are coming from as well as these.

Revenue synergies are perhaps where the greatest potential for growth comes from but are also more difficult to identify, quantify and enact. Good post-acquisition planning is essential for these synergies to be realised but they can be substantial and long-lasting. In this case, Hav Co's management can help market Strand Co's products more effectively by using their sales and marketing talents resulting in higher revenues and longer competitive advantage. Research and development activity can be combined to create new products using the technologies in place in both companies, and possibly bringing innovative products to market quicker. The services of the scientists from Strand Co will be retained to drive innovation forward, but these need to be nurtured with care since they had complete autonomy when they were the owners of Strand Co.

The main challenge in ensuring long-lasting benefits is not only ensuring accurate identification of potential synergies but putting into place integration processes and systems to gain full benefit from them. This is probably the greater challenge for management, and, when poorly done, can result in failure to realise the full value of the acquisition. Hav Co needs to be aware of this and make adequate provisions for it.

(Note: Credit will be given for alternative relevant comments and suggestions)

(b) Maximum premium based on excess earnings method

This method is similar to the EVA[®] method which measures excess return.

Average pre-tax earnings: $(397 + 370 + 352)/3 = \$373.0\text{m}$

Average capital employed: $[(882 + 210 - 209) + (838 + 208 - 180) + (801 + 198 - 140)]/3 = \869.3m

Excess annual value/annual premium = $373\text{m} - (20\% \times \$869.3\text{m}) = \$199.1\text{m}$

After-tax annual premium = $\$199.1\text{m} \times 0.8 = \159.3m

PV of annual premium (assume perpetuity) = $\$159.3\text{m}/0.07 = \$2,275.7\text{m}$

According to this method, the maximum premium payable is \$2,275.7m in total.

Maximum premium based on price-to-earnings (PE) ratio method

Strand Co estimated PE ratio = $16.4 \times 1.10 = 18.0$

Strand Co profit after tax: $\$397\text{m} \times 0.8 = \317.6m

Hav Co profit after tax = $\$1,980\text{m} \times 0.8 = \$1,584.0\text{m}$

Hav Co, current value = $\$9.24 \times 2,400 \text{ shares} = \$22,176.0\text{m}$

Strand Co, current value = $\$317.6\text{m} \times 18.0 = \$5,716.8\text{m}$

Combined company value = $(\$1,584\text{m} + \$317.6\text{m} + \$140.0\text{m}) \times 14.5 = \$29,603.2\text{m}$

Maximum premium = $\$29,603.2\text{m} - (\$22,176.0\text{m} + \$5,716.8) = \$1,710.4\text{m}$

(c) Strand Co, current value per share = $\$5,716.8\text{m}/1,200\text{m shares} = \4.76 per share

Maximum premium % based on PE ratio = $\$1,710.4\text{m}/\$5,716.8\text{m} \times 100\% = 29.9\%$

Maximum premium % based on excess earnings = $\$2,275.7\text{m}/\$5,716.8\text{m} \times 100\% = 39.8\%$

Cash offer: premium (%)

$(\$5.72 - \$4.76)/\$4.76 \times 100\% = 20.2\%$

Cash and share offer: premium (%)

1 Hav Co share for 2 Strand Co shares

Hav Co share price = \$9.24

Per Strand Co share = \$4.62

Cash payment per share = \$1.33

Total return = $\$1.33 + \$4.62 = \$5.95$

Premium percentage = $(\$5.95 - \$4.76)/\$4.76 \times 100\% = 25.0\%$

Cash and bond offer: premium (%)

Each share has a nominal value of \$0.25, therefore \$5 is $\$5/\$0.25 = 20$ shares

Bond value = $\$100/20 \text{ shares} = \5 per share

Cash payment = \$1.25 per share

Total = \$6.25 per share

Premium percentage = $(\$6.25 - \$4.76)/\$4.76 = 31.3\%$

On the basis of the calculations, the cash together with bond offer yields the highest return; in addition to the value calculated above, the bonds can be converted to 12 Hav Co shares, giving them a price per share of \$8.33 ($\$100/12$). This price is below Hav Co's current share price of \$9.24, and therefore the conversion option is already in-the-money. It is probable that

the share price will increase in the 10-year period and therefore the value of the convertible bond should increase. A bond also earns a small coupon interest of \$3 per \$100 a year. The 31.3% return is the closest to the maximum premium based on the excess earnings method and more than the maximum premium based on the PE ratio method. It would seem that this payment option transfers more value to the owners of Strand Co than the value created based on the PE ratio method.

However, with this option Strand Co shareholders only receive an initial cash payment of \$1.25 per share compared to \$1.33 per share and \$5.72 per share for the other methods. This may make it the more attractive option for the Hav Co shareholders as well, and although their shareholding will be diluted most under this option, it will not happen for some time.

The cash and share offer gives a return in between the pure cash and the cash and bonds offers. Although the return is lower, Strand Co's shareholders become owners of Hav Co and have the option to sell their equity immediately. However, the share price may fall between now and when the payment for the acquisition is made. If this happens, then the return to Strand Co's shareholders will be lower.

The pure cash offer gives an immediate and definite return to Strand Co's shareholders, but is also the lowest offer and may also put a significant burden on Hav Co having to fund so much cash, possibly through increased debt.

It is likely that Strand Co's shareholder/managers, who will continue to work within Hav Co, will accept the mixed cash and bond offer. They, therefore, get to maximise their current return and also potentially gain when the bonds are converted into shares. Different impacts on shareholders' personal taxation situations due to the different payment methods might also influence the choice of method.

- 3 (a)** Only the transactions resulting in cash flows between Kenduri Co and Lakama Co are considered for hedging. Other transactions are not considered.

Net flow in US\$: US\$4.5m payment – US\$2.1m receipt = US\$2.4m payment

Hedge the US\$ exposure using the forward market, the money market and options.

Forward market

US\$ hedge: $2,400,000/1.5996 = £1,500,375$ payment

Money market

US\$ hedge

Invest in US\$: $2,400,000/(1 + 0.031/4) = US\$2,381,543$

Convert into £ at spot: $US\$2,381,543/1.5938 = £1,494,255$

Borrow in £: $£1,494,255 \times (1 + 0.040/4) = £1,509,198$

(Note: Full credit will be given to candidates who use the investing rate of 2.8% instead of the borrowing rate of 4%, where this approach has been explained and justified)

The forward market is preferred due to lower payment costs.

Options

Kenduri Co would purchase Sterling three-month put options to protect itself against a strengthening US\$ to £.

Exercise price: \$1.60/£1

£ payment = $2,400,000/1.60 = 1,500,000$ or 24 contracts

24 put options purchased

Premium payable = $24 \times 0.0208 \times 62,500 = US\$31,200$

Premium in £ = $31,200/1.5938 = £19,576$

Total payments = $£1,500,000 + £19,576 = £1,519,576$

Exercise price: \$1.62/£1

£ payment = $2,400,000/1.62 = 1,481,481$ or 23.7 contracts

23 put options purchased

£ payment = $23 \times 62,500 = £1,437,500$

Premium payable = $23 \times 0.0342 \times 62,500 = US\$49,163$

Premium in £ = $49,163/1.5938 = £30,846$

Amount not hedged = $US\$2,400,000 - (23 \times 62,500 \times 1.62) = US\$71,250$

Use forwards to hedge amount not hedged = $US\$71,250/1.5996 = £44,542$

Total payments = $1,437,500 + 30,846 + 44,542 = £1,512,888$

Both these hedges are worse than the hedge using forward or money markets. This is due to the premiums payable to let the option lapse if the prices move in Kenduri Co's favour. Options have an advantage over forwards and money markets because the prices are not fixed and the option buyer can let the option lapse if the rates move favourably. Hence options have an unlimited upside but a limited downside. With forwards and money markets, Kenduri Co cannot take advantage of the US\$ weakening against the £.

Conclusion

The forward market minimises the payment and is therefore recommended over the money market. However, options give Kenduri Co the choice of an unlimited upside, although the cost is higher. Therefore the choice between the forward market and the option market depends on the risk preference of the company.

- (b) Based on spot mid-rates: US\$1.5950/£1; CAD1.5700/£1; JPY132.75/£1

In £000

Receipts to	Payments from					Total
	UK	USA	Canada	Japan		
UK		1,316.6	2,165.6			3,482.2
USA	2,821.3		940.4	877.7		4,639.4
Canada	700.6			2,038.2		2,738.8
Japan		2,410.5				2,410.5
Total payments	3,521.9	3,727.1	3,106.0	2,915.9		
Total receipts	3,482.2	4,639.4	2,738.8	2,410.5		
Net receipt/(payment)	(39.7)	912.3	(367.2)	(505.4)		

Each of Kenduri Co, Jaia Co and Gochiso Co will make payments of £ equivalent to the amount given above to Lakama Co.

Multilateral netting involves minimising the number of transactions taking place through each country's banks. This would limit the fees that these banks would receive for undertaking the transactions and therefore governments who do not allow multilateral netting want to maximise the fees their local banks receive. On the other hand, some countries allow multilateral netting in the belief that this would make companies more willing to operate from those countries and any banking fees lost would be more than compensated by the extra business these companies and their subsidiaries bring into the country.

- (c) Gamma measures the rate of change of the delta of an option. Deltas range from near 0 for a long call option which is deep out-of-the-money, where the price of the option is insensitive to changes in the price of an underlying asset, to near 1 for a long call option which is deep in-the-money, where the price of the option moves in line and largely to the same extent as the price of the underlying asset. When the long call option is at-the-money, the delta is 0.5 but also changes rapidly. Hence, the gamma is highest for a long call option which is at-the-money. The gamma is also higher when the option is closer to expiry. It would seem, therefore, that the option is probably trading near at-the-money and has a relatively short time period before it expires.

- 4 (a) As a high growth company, Limni Co probably requires the cash flows it generates annually for investing in new projects and has therefore not paid any dividends. This is a common practice amongst high-growth companies, many of which declare that they have no intention of paying any dividends. The shareholder clientele in such companies expects to be rewarded by growth in equity value as a result of the investment policy of the company.

Capital structure theory would suggest that because of the benefit of the tax shield on interest payments, companies should have a mix of equity and debt in their capital structure. Furthermore, the pecking order proposition would suggest that companies tend to use internally generated funds before going to markets to raise debt capital initially and finally equity capital. The agency effects of having to provide extra information to the markets and where one investor group benefits at the expense of another have been cited as the main deterrents to companies seeking external sources of finance. To a certain extent, this seems to be the case with Limni Co in using internal finance first, but the pecking order proposition seems to be contradicted in that it seeks to go straight to the equity market and undertake rights issues thereafter. Perhaps the explanation for this can be gained from looking at the balance of business and financial risk. Since Limni Co operates in a rapidly changing industry, it probably faces significant business risk and therefore cannot afford to undertake high financial risk, which a capital structure containing significant levels of debt would entail. This, together with agency costs related to restrictive covenants, may have determined Limni Co's financing policy.

Risk management theory suggests that managing the volatility of cash flows enables a company to plan its investment strategy better. Since Limni Co uses internally generated funds to finance its projects, it needs to be certain that funds will be available when needed for the future projects, and therefore managing its cash flows will enable this. Moreover, because Limni Co faces high business risk, managing the risk that the company's managers cannot control through their actions, may be even more necessary.

The change to making dividend payments or undertaking share buybacks will affect all three policies. The company's clientele may change and this may cause share price fluctuations. However, since the recommendation for the change is being led by the shareholders, significant share price fluctuations may not happen. Limni Co's financing policy may change because having reduced internal funds means it may have to access debt markets and therefore have to look at its balance between business and financial risk. The change to Limni Co's financial structure may result in a change in its risk management policy, because it may be necessary to manage interest rate risk as well.

(Note: Credit will be given for alternative relevant comments)

- (b) In the case of company Theta, dividends are growing but not at a stable rate. In fact company Theta is paying out \$0.40 in dividends for every \$1 in earnings, and has a fixed dividend cover ratio of 2.50. This would be confusing for the shareholders, as they would not know how much dividend they would receive from year to year. Although profits have risen over the past five years, if profits do fall, company Theta may reduce dividends and therefore send the wrong signals to shareholders and investors. This may cause unnecessary fluctuations of the share price or result in a depressed share price.

In the case of company Omega, annual dividends are growing at a stable rate of approximately 5% per year, while the company's earnings are growing steadily at around 3% per year, resulting in an increasing payout ratio. Also a high proportion of earnings are paid out as dividends, increasing from 60% in 2009 to almost 65% in 2013. This would indicate a company

operating in a mature industry, signaling that there are few new projects to invest in and therefore reducing the retention rate. Such an investment would be attractive to investors requiring high levels of dividend returns from their investments.

In the case of company Kappa, although a lower proportion of earnings is paid out as dividends (from about 20% in 2009 to about 27% in 2013), they are growing at a higher but stable rate of 29%–30% per year. The company's earnings are growing rapidly but erratically, ranging between 3% and 35% between 2009 and 2013. This probably indicates a growing company, possibly similar to Limni Co itself, where perhaps returns to investors having been coming from share price growth, but one where dividends are becoming more prominent. Such an investment would be attractive to investors requiring lower levels of dividend returns, but higher capital returns from their investments.

Due to company Theta's confusing dividend policy, which may lead to erratic dividend payouts and a depressed share price, Limni Co would probably not want to invest in that company. The choice between company Omega and company Kappa would depend on how Limni Co wants to receive its return from the investment, maybe taking into account factors such as taxation implications, and the period of time it wishes to invest for, in terms of when the returns from an investment will be maximised and when it will need the funds for future projects.

(Note: Credit will be given for alternative relevant comments)

(c) Limni Co, current dividend capacity

	\$000
Profit before tax (23% x \$600,000,000)	138,000
Tax (26% x \$138,000,000)	<u>(35,880)</u>
Profit after tax	102,120
Add back depreciation (25% x \$220,000,000)	55,000
Less investment in assets	(67,000)
Remittances from overseas subsidiaries	15,000
Additional tax on remittances (6% x \$15,000,000)	<u>(900)</u>
Dividend capacity	<u>104,220</u>

Increase in dividend capacity = $10\% \times \$104,220,000 = \$10,422,000$

Gross up for tax = $\$10,422,000 / 0.94 = \$11,087,234$

Percentage increase in remittances from overseas subsidiaries = $73.9\% [\$11,087,234 / \$15,000,000]$

Dividend repatriations need to increase by 73.9% from Limni Co's international subsidiaries in order to increase the dividend capacity by 10%. Limni Co would need to consider whether or not it is feasible for its subsidiaries to increase their repatriations to such an extent, and the impact this will have on the motivation of the subsidiaries' managers and on the subsidiaries' ability to operate as normal.

- (d)** The main benefit of a share buyback scheme to investors is that it helps to control transaction costs and manage tax liabilities. With the share buyback scheme, the shareholders can choose whether or not to sell their shares back to the company. In this way they can manage the amount of cash they receive. On the other hand, with dividend payments, and especially large special dividends, this choice is lost, and may result in a high tax bill. If the shareholder chooses to re-invest the funds, it will result in transaction costs. An added benefit is that, as the share capital is reduced, the earnings per share and the share price may increase. Finally, share buybacks are normally viewed as positive signals by markets and may result in an even higher share price.

(Note: Credit will be given for alternative relevant comments)

		<i>Marks</i>
1	(a) (i) Explanation of Mlima Co's cost of capital based on Ziwa Co's ungeared cost of equity Ziwa Co, cost of ungeared equity	3
		<u>4</u>
		7
	(ii) Sales revenue growth rates Operating profit rate Estimate of free cash flows and PV of free cash flows for years 1 to 4 PV of free cash flows after year 4 Base case Bahari project value Annual tax shield benefit Annual subsidy benefit PV of the tax shield and subsidy benefits Value of the Bahari project	1
		1
		4
		2
		2
		1
		1
		1
		<u>1</u>
		14
	(iii) Calculation of unsecured bond value Comment Limitation	2
		2
<u>1</u>		
	5	
(iv) Comments on the range of values/prices with and without the project, and concluding statement Discussion of assumptions Explanation for additional reasons for listing Assessment of reasons for discounted share price	4–5	
	3–4	
	2–3	
	<u>2–3</u>	
	Max 12	
Professional marks		
	Report format	1
	Structure and presentation of the report	<u>3</u>
		4
(b)	Discussion of relocation of farmers	4–5
	Discussion of relationship between Bahari president and Mlima Co CEO	<u>4–5</u>
	Max	8
	Total	<u>50</u>

	<i>Marks</i>
2 (a) Distinguish between the different synergies	1-2
Discuss possible financial synergy sources	2-3
Discuss possible cost synergy sources	1-2
Discuss possible revenue synergy sources	3-4
Concluding comments	1-2
	<hr/>
Max	9
(b) Average earnings and capital employed	1
After-tax annual premium	1
PV of premium (excess earnings method)	1
Hav Co and Strand Co values	1
Combined company value	1
Value created/premium (PE method)	1
	<hr/>
	6
(c) Strand Co, value per share	1
Cash offer premium (%)	1
Cash and share offer premium (%)	2
Cash and bond offer premium (%)	2
Explanation and justification	4-5
	<hr/>
Max	10
Total	25
	<hr/>
3 (a) Calculation of net US\$ amount	1
Calculation of forward market US\$ amount	1
Calculation of US\$ money market amount	2
Calculation of one put option amount (1·60 or 1·62)	3
Calculation of the second put option amount or if the preferred exercise price choice is explained	2
Advice and recommendation	3-4
	<hr/>
Max	12
(b) Mid spot rates calculation	1
Calculation of the £ equivalent amounts of US\$, CAD and JPY	4
Calculation of the net receipt/payment	2
Explanation of government reaction to multilateral hedging	3
	<hr/>
	10
(c) 1 mark per relevant point	3
	<hr/>
Total	25
	<hr/>

	<i>Marks</i>
4 (a) Discussion of dividend policy	1-2
Discussion of financing policy	3-4
Discussion of risk management policy	1-2
Effect of dividends and share buybacks on the policies	2-3
	<hr/>
Max	8
(b) 2 marks per evaluation of each of the three companies	6
Discussion of which company to invest in	2
	<hr/>
	8
(c) Calculation of initial dividend capacity	3
Calculation of new repatriation amount	2
Comment	1-2
	<hr/>
Max	6
(d) 1 mark per relevant point	3
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Total	25