Chakula

1. The following **exhibits**, available on the left-hand side of the screen, provide information relevant to the question.

1. Introduction – about Chakula Co, the demerger of Kawa Co and Lahla Co a prospective buyer of Kawa Co

2. Areas for further clarification – requested by Lahla Co

3. Capital structure details – for all companies

4. Kawa Co as a demerged company

5. Acquisition of Kawa Co by Lahla Co

This information should be used to answer the question **requirements** within your chosen **response option(s)**.

1	Introduction

Chakula Co is a large listed company involved in two business sectors. Its main business is in the production of food and drink for supermarkets and other large traders. It also owns a chain of coffee shops nationwide. Chakula Co's board of directors (BoD) thinks that the company is undervalued and is of the opinion that it should focus on the rapid innovation taking place in the food and drink production sector.

Therefore, Chakula Co's BoD has decided to unbundle the coffee shops' business into a company called Kawa Co. Chakula Co will then either demerge Kawa Co through a spin-off or sell Kawa Co. Chakula Co will then turn its full focus on its remaining business of food and drink production. Initially, Chakula Co's shareholders will own Kawa Co on the basis of owning one Kawa Co share for every Chakula Co share owned by them.

Lahla Co is a large unlisted company controlled by 20 shareholders who all have a significant stake in the business. Lahla Co owns a number of hotels around the country and is looking to diversify into the coffee retail business. Lahla Co has approached Chakula Co about the possibility of purchasing Kawa Co. Lahla Co will finance the purchase either through a cash-only offer or a share-for-share offer.

If Kawa Co is demerged, it will be listed on the stock exchange as an independent company. Chakula Co is unsure whether to sell Kawa Co to Lahla Co or to demerge it into an independent company.

2	Areas for further clarification

Further clarification has been sought by Lahla Co's BoD on the following two areas:

(i) Lahla Co's chief executive officer (CEO) has determined that a regulatory framework in the area of mergers and acquisitions is designed to protect the interests of shareholders and other stakeholders. She wants to find out why there is a need for a regulatory framework.

(ii) The acquisition of Kawa Co will be a major investment for Lahla Co and its BoD has concerns about how the acquisition will be financed. The BoD has heard that there are several theories explaining the capital structure of a company, including the following two propositions:

- A company should maximise its debt financing; and
- Too much debt can be harmful to a company and there needs to be a balance between equity and debt financing.

3	Capital structure details

Extracts from Chakula Co's financial statements are as follows:

	$m
Assets less current liabilities	5,010
Financed by:	
Share capital (nominal value $0.50 per share)	1,000
Reserves	1,180
Non-current liabilities: Loan notes A (nominal value $100 per loan note)	2,470
Non-current liabilities: Loan notes B (nominal value $100 per loan note)	360

Chakula Co's shares are trading at $2·45 each. The estimated equity value of Kawa Co is $1,200m.

Chakula Co's loan notes A currently have a total market value of $2,100m. Loan notes B currently have a total market value of $400m. After the unbundling, loan notes B will be serviced by Kawa Co and loan notes A will remain with Chakula Co, with the post-tax cost of debt for loan notes B expected to be 3.52%. It is expected that Kawa Co will maintain its capital structure after the unbundling.

Lahla Co's debt to equity ratio is estimated to be 40:60 in equivalent market value terms and it has 1,200 million shares in issue.

The cost of equity for Kawa Co is estimated to be 13.51%.

All companies pay corporation tax at a rate of 20% per year and tax is payable in the same year as the profits it is based on.

4	Kawa Co as a demerged company

The following estimated information will be applicable to Kawa Co if it is demerged.

Chakula Co's sales revenue is $4,500m currently, of which 20% is attributable to Kawa Co. It is estimated that after Kawa Co is demerged, its annual sales revenue growth rate will be 6% and the profit margin before interest and tax will be 21% of sales revenue, for each of the next four years. It can be assumed that the current tax allowable depreciation will remain equivalent to the amount of investment needed to maintain the current level of operations, but that Kawa Co will require an additional investment in assets of $0·25 for every $1 increase in sales revenue.

After the initial four years, the annual growth rate of the company's free cash flows is expected to be 2·5% for the foreseeable future.

5	Acquisition of Kawa Co by Lahla Co

The following estimated information applies to the acquisition of Kawa Co by Lahla Co, if Kawa Co is acquired.

The average price to earnings (PE) ratio for the hotel industry is 15·61, however, Lahla Co's PE ratio is estimated to be 10% lower than this.

Extracts from the current statements of profit or loss applicable to Lahla Co and Kawa Co are as follows:

	Lahla Co	**Kawa Co**
	$m	**$m**
Profit before interest and tax	305.0	161.2
Interest	(91.2)	(14.8)
Tax 20%	(42.8)	(29.3)
Profit after tax	171.0	117.1

After the acquisition, it is expected that the PE ratio of the combined company will be the midpoint between the two individual companies' PE ratios. The annual after-tax profits will increase by $62m due to combining the two companies.

Lahla Co has proposed to pay for acquiring Kawa Co either through a cash offer of $0·66 for a Kawa Co share, or one Lahla Co share for every three Kawa Co shares. Lahla Co will borrow the money needed to pay for the acquisition.

Requirements

(a) Explain why a regulatory framework related to mergers and acquisitions is necessary to protect the interests of shareholders and other stakeholders.

(5 marks)

(b) Discuss the two theoretical propositions, as raised by Lahla Co's board of directors (BoD), in relation to a company's capital structure.

(6 marks)

(c) Prepare a report for the BoD of Lahla Co which:

(i) Estimates the value of each Kawa Co share if it is demerged and listed as an independent company;

(8 marks)

(ii) Estimates;

- **the additional equity value created when combining Lahla Co and Kawa Co;**
- **the percentage gain to each of Lahla Co's and Kawa Co's shareholder group under each payment method;**
- **the impact on Lahla Co's capital structure under each payment method; and**

(12 marks)

(iii) Evaluates the financial and other factors that both Lahla Co's shareholders and Kawa Co's shareholders would consider prior to agreeing to the acquisition, and the impact on Lahla Co's capital structure under each payment method.

(9 marks)

Professional marks will be awarded for the demonstration of skill in communication, analysis and evaluation, scepticism and commercial acumen in your answer.

(10 marks)

Robson

2.

The following **exhibits**, available on the left-hand side of the screen, provide information relevant to the question.

1. Robson Co and project information

2. Further information on project finance

This information should be used to answer the question **requirements** within your chosen **response option(s)**.

1	Robson Co and project information

Robson Co is a food manufacturer with a portfolio of well-known brands. The founding directors retain a significant minority shareholding in the company and continue to serve on the board following a successful listing ten years ago. After obtaining the listing, Robson Co's gearing ratio increased significantly above the sector average as the result of a poorly timed expansion strategy, mainly financed by debt. Earnings became increasingly volatile and the debt burden triggered a decline in the company's financial performance. The board responded to these problems five years ago by pursuing a debt-reduction turnaround strategy, which has been financed by a series of rights issues and asset disposals.

Even though this strategy successfully reduced the gearing ratio, which is now equal to the industry average, the share price remains depressed due to competitive pressures within the industry. The company's credit rating has recently been downgraded once again. Robson Co's chief executive officer (CEO) has identified an opportunity to relocate the manufacturing plant and develop a state-of-the-art automated production line, which will reduce the underlying cost base and be a source of competitive advantage.

Project information

Robson Co's finance director has prepared estimates of the free cash flows generated by the project, based on a four-year time horizon:

Year	**0**	**1**	**2**	**3**	**4**
	$m	**$m**	**$m**	**$m**	**$m**
Free cash flows		20.9	20.6	28.7	104.6

The investment cost is $120m, which Robson Co's CEO proposes to finance as follows:

	$m
Disposal of existing manufacturing plant	20
Rights issue	10
Subsidised loan, 3·5% annual interest rate	40
Bank loan, 9% annual interest rate	50
Total	**120**

The bank loan is repayable in equal annual instalments over four years. Issue costs of 2% are payable on gross external financing and are not allowable for corporation tax. Issue costs are payable out of available cash reserves. The finance director has asked you to ignore underwriting costs relating to the rights issue.

Additional information

Robson Co's current asset beta is 1·222. The risk free rate is 3% and the market risk premium is 9%. The CEO expects the business risk of the company to remain unchanged as a result of the investment.

Corporation tax is payable at an annual rate of 20%.

2	Further information on project finance

The board discussed the financing of the project at a recent meeting. Robson Co's corporate bankers have already approved the funding decision for the $50m bank loan but the finance director is concerned about the following capital providers:

External shareholders

The last rights issue took place 18 months ago and there were two others in the previous five years. A group of shareholders have formed an action group to exert pressure on the board for more drastic change. This included a campaign to replace the CEO, which was only narrowly avoided when the shareholders voted at the most recent annual general meeting. The CEO is optimistic about the prospects of a rights issue but suggested underwriting the issue to reduce the risk of failure.

Subsidised loan provider

The government funds the subsidised loan programme to boost job creation in the economically deprived northern region of the country, which is where the new automated manufacturing plant is to be located. Although the loan has yet to be approved, the chief executive is optimistic about the outcome of their application. One feature of the loan programme is that it is open to applicants without assets available to provide security although other restrictions may be imposed. This is relevant to Robson Co since surplus assets were disposed of during the turnaround strategy and those which remain will be used to secure the new bank loan.

Requirements

(a) Calculate the adjusted present value of the investment and recommend whether the project should be accepted or not.

(13 marks)

(b) Discuss the factors the capital providers, excluding the bank, will consider before deciding whether or not to approve the funding decision for Robson Co's investment in a new manufacturing plant.

(7 marks)

Professional marks will be awarded for the demonstration of skill in analysis and evaluation, scepticism and commercial acumen in your answer.

(5 marks)

Gogarth

3.

The following **exhibits**, available on the left-hand side of the screen, provide information relevant to the question.

1. Gogarth Co's currency risk management

2. Board queries about risk management

This information should be used to answer the question **requirements** within your chosen **response option(s)**.

1	Gogarth Co's currency risk management

Gogarth Co is an electrical equipment manufacturer, based in Malaysia, looking to develop its operations abroad. One of its biggest sales markets is the USA and Gogarth Co also imports components from the USA. Gogarth Co regularly hedges transactions in foreign currencies.

It is currently 1 May. On 31 August, Gogarth Co is due to pay $14,500,000 to an American supplier and receive $37,400,000 from an American customer.

The following quotations have been obtained:

Exchange rates (quoted as US dollar per Malaysian Ringgit US$/MR1)

Spot	0·2355 – 0·2358
Four months forward	0·2370 – 0·2374

Currency futures (contract size MR500,000, futures price quoted as US$/MR1)

	Futures price
June	0·2366
September	0·2378

Currency options (contract size MR500,000, exercise price quoted as US$/MR1, premium: US cents/MR1)

	Calls		**Puts**	
Exercise price	**June**	**September**	**June**	**September**
0.2368	0.11	0.14	0.19	0.23

Futures and options contracts mature at the month end. The number of contracts to be used should be rounded to the nearest whole number in calculations. If the amount cannot be hedged using an exact number of futures or options contracts, the amount unhedged or over-hedged should be hedged using the forward market. For the purposes of the calculations, it should be assumed that the options are exercised.

2	Board queries about risk management

The head of Gogarth Co's treasury function gave a presentation about the treasury function

and what it does to manage foreign exchange risk at the last board meeting. Directors have subsequently raised two questions:

- The marketing director has asked whether Gogarth Co should consider using over-the-counter currency options to hedge exchange rate risk.
- A new non-executive director has stated that he understands what the treasury function does in relation to the management of transaction risk, but is unclear on the treasury function's role in the management of economic risk.

Requirements

(a) Advise Gogarth Co on, and recommend, an appropriate hedging strategy for its US$ cash flows on 31 August. Include relevant calculations.

(15 marks)

(b) Discuss the role of Gogarth Co's treasury function in relation to the management of economic risk in relation to foreign exchange.

(5 marks)

Professional marks will be awarded for the demonstration of skill in analysis and evaluation, and commercial acumen in your answer.

(5 marks)

Answers

Suggested Solution:

Chakula

1. **(a)**

The key reason for a regulatory framework to exist in merger and acquisition (M&A) activity is to ensure that the interests of stakeholders are protected, and where the natural market forces may not be sufficient on their own to ensure that this happens. The regulatory framework aims to ensure a well-functioning market for corporate control.

With respect to shareholders, as a major stakeholder group, the regulatory framework aims to establish that shareholders of the target company are not affected negatively by ensuring that:

- minority shareholders' rights are protected;
- the target company's management cannot block a M&A where it is in commercial and economic interest of shareholders; and,
- sufficient time is made available for a proposal to be properly scrutinised. The regulatory framework also aims to ensure that sufficient information is provided about the proposed M&A for all investor groups to evaluate the proposed deal properly.

With respect to other stakeholders, the aim of the regulatory framework is to ensure that there is not a substantial lessening of competition after the M&A has taken place. This will protect the choice that consumers, suppliers and employees have in engaging with a range of organisations in that business sector, and within a properly functioning economic market.

(b)

The two theoretical propositions are based on the opinion that a company's capital structure does matter to the value of the company. The first proposition posits that since debt is cheaper than equity and there is a 'tax shield' attached to debt finance, it is better for a company to be financed by as much debt as possible. This is the view presented by the Modigliani and Miller with taxes model. Since interest is paid before a company pays corporation tax, but dividends are not, a company does not have to pay taxes on profits used to pay interest. This is referred to as a tax shield. The presence of a tax shield results in the cost of capital reducing as the proportion of debt financing increases.

The second proposition builds on this by arguing that although debt carries with it the advantage of a tax shield, at high levels of gearing this position no longer holds true. Here financial risk increases significantly and the company experiences increasing levels of financial distress, resulting in the cost of equity increasing significantly. This overrides the benefits gained from the tax shield. As a result, the cost of capital increases. At very high levels of gearing, even the cost of debt starts to increase significantly. Hence, there is a trade-off between the benefits of the tax shield and the costs related to financial distress, such that the cost of capital reduces initially but then rises, meaning that there is an optimal, minimum cost of capital where corporate value is maximised.

(c)

REPORT TO THE BOARD OF DIRECTORS (BoD), LAHLA CO

This report evaluates and discusses the financial and other factors that both Lahla Co's and Kawa Co's shareholders would consider prior to agreeing to the acquisition. It also evaluates and discusses the impact of the acquisition on Lahla Co's capital structure under the two payment methods.

Factors to consider

Demerger (Appendix 2)	Additional value created for Kawa Co's shareholders 18.3%	
Acquisition, cash payment (Appendix 3)	Additional value created for Kawa Co's shareholders 10.0%	Additional value created for Lahla Co's shareholders 22.0%
Acquisition, share-for-share exchange (Appendix 3)	Additional value created for Kawa Co's shareholders 26.7%	Additional value created for Lahla Co's shareholders 14.0%

The initial evaluation would indicate that the demerger is the better option for Kawa Co's shareholders, compared to the acquisition, if the acquisition is paid for by cash. However, the share-for-share exchange gives a higher return compared to the demerger and therefore on purely financial grounds this is the best option for Kawa Co's shareholders. Although Lahla Co's shareholders lose some additional value derived from the acquisition if the share-for-share option is chosen, they would probably still be in favour of the acquisition because the company's value will increase and so will the value of their shares.

However, the following additional factors also need to be considered in the evaluation:

The value estimates are based on predicted variables, both for the demerger valuation and for the acquisition valuations. It is likely that there will be changes to the actual variables, and it is recommended that Lahla Co undertake sensitivity analysis and assess the results of this before making the final acquisition decision.

Kawa Co's shareholders probably have three main areas they would want considered further with respect to the acquisition with the share-for-share exchange.

Firstly, they would become part of a larger company with interests both in hotels and in coffee shops and they would own just under 36% (667m share/ 1,867m shares) of the share capital of the new combined company. However, they would be minority shareholders. As such, they may feel that they do not have sufficient influence in the major decisions the company makes.

Therefore, Kawa Co's shareholders may be of the opinion that operating as a stand-alone demerged independent company may give them a better opportunity to shape the company's strategy. On the other hand, they may equally decide that they would need to be part of a large company to be able to compete effectively against Buni Co.

Secondly, Kawa Co's shareholders cannot be certain whether the 26.7% additional value is realistic or not. This may be especially pertinent because Lahla Co is an unlisted company and therefore may keep proprietary/strategic information private, limiting the ability for external parties to undertake a full and effective evaluation.

Thirdly, because Lahla Co is an unlisted company, Kawa Co's shareholders may be concerned about how they would be able to exit the company, if they want to. For instance, if their investment portfolios become imbalanced when the companies are combined, they may need to sell some shares to rebalance it. Lahla Co should consider the possibility of undertaking a partial listing in order to make the deal more palatable for Kawa Co's shareholders.

In addition to ensuring that the acquisition is financially beneficial for them, Lahla Co's shareholders' main concern would be that Kawa Co's shareholders will own a significant portion of the combined company (just under 36%). This could mean that the new shareholders would have a significant influence on the way the company is run and its strategic direction, which may be different to what Lahla Co's current shareholders want.

Capital structure changes

Capital Structure	Equity %	Debt %
Original: Lahla Co	60.0%	40.0%
Cash payment: Combined company (Appendix 3)	46.9%	53.1%
Share-for-share exchange: Combined company (Appendix 3)	68.0%	32.0%

The cash payment option means that the proportion of market value of debt increases significantly and is higher than the market value of equity. This would probably increase the costs related to financial distress and future borrowing costs would increase as a result.

On the other hand, the share-for-share exchange, increases the proportion of equity compared to debt financing. This may reduce financial distress costs, but also reduce Lahla Co's ability to benefit from the tax shields.

On the face of it, it would appear that Lahla Co would find it difficult to raise the funds needed through just debt financing, although the BoD could explore this option further. Equity finance through a partial listing may be a necessary option which Lahla Co will need to explore as well, although this may require Lahla Co to disclose private information to the markets.

Tutorial note: *additional consideration which could be made*

If the cash payment to Kawa Co's shareholders is increased to $0.71/share, to bring it in line with the value obtained from the demerger, and the funding is sought from debt financing, then the debt percentage compared to total firm value will increase to 53.8% (as shown below):

[$0.71 x 2,000m shares = $1,420m.
Market value of equity: $2,933.7m, 46.2%
Market value of debt = ($1,601.7m + $1,420m + $400m) = $3,421.7m, 53.8%]

Conclusion

The share-for-share exchange gives the highest return for Kawa Co's shareholders and also makes a good return for Lahla Co's shareholders. The impact on capital structure from this method is a higher percentage of equity and therefore scope to raise more finance through debt if required.

However, concerns that Lahla Co is unlisted and complications arising from this, might make the cash payment method the preferred one for Kawa Co shareholders. The current cash offer is less than the value generated from the demerger and therefore unlikely to be accepted. Therefore, a cash offer to match the benefit from the demerger would need to be made. The initial cash offer and a higher revised cash offer would have a significant impact on Lahla Co's capital structure in terms of increased debt. Therefore, it is recommended that Lahla Co should consider equity finance through a partial listing. This would also enable Kawa Co's shareholders to trade their shares and thereby make the deal look better for them.

Report compiled by:
Date

(Note: credit will be given for alternative and valid discursive comments)

APPENDICES:

Appendix 1: Estimate of Kawa Co cost of capital (Part (c)(i))

Kawa Co, cost of equity = 13.51%
Kawa Co, post tax cost of debt = 3.52%
Kawa Co, cost of capital =
(13.51% x $1,200m + 3.52% x $400m) / ($1,200m + $400m) = 11.01%, say 11%

Appendix 2: Estimate of Kawa Co equity value if demerger is undertaken (Part (c)(i))

Current sales revenue attributable to Kawa Co = 20% x $4,500m = $900m
Per year, sales revenue growth rate = 6%
Profit before interest and tax (PBIT) = 21%
Tax rate = 20%
Additional asset investment = $0.25/$1
Cost of capital (appendix 1) = 11%
Per year, free cash flow growth rate after first four years = 2.5%

Cash flows, years 1 to 4 ($m)

Year	**1**	**2**	**3**	**4**
Sales revenue	954.0	1,011.2	1,071.9	1,136.2
PBIT	200.3	212.4	225.1	238.6
Tax	40.1	42.5	45.0	47.7
Additional asset investment	13.5	14.3	15.2	16.1
Free cashflows	146.7	155.6	164.9	174.8
Present value of free cashflows (11%)	132.2	126.3	120.6	115.1

Corporate value, years 1 to 4: $494.2m
Corporate value, year 5 onwards:
($174.8m x 1.025/(0.11 – 0.025)) x 1.11^{-4} = $1,388.5m

Total corporate value: $1,882.7m
Value attributable to equity: 75% x $1,882.8m = $1,412.0m
Per share value = $1,412.0m / 2,000 million shares = $0.71 per share
Kawa Co original value = $1,200m/2,000 million shares = $0.60 per share
Gain = ($0.71 – $0.60)/$0.60 = 18.3%, if Kawa Co gets demerged

Appendix 3: Sale of Kawa Co to Lahla Co (Part (c)(ii)

Lahla Co PE ratio = 90% x 15.61 = 14.05
Lahla Co equity value = 14.05 x $171.0m = $2,402.6m

Kawa Co equity value = $1,200m
Kawa Co estimate of PE ratio = $1,200m / $117.1m = 10.25

Profits after tax of combined company = $171.0m + $117.1m + $62m = $350.1m
Average PE ratio of combined company = (14.05+10.25)/2 = 12.15
Estimate of equity value of combined company = $350.1m x 12.15 = $4,253.7m
Additional equity value created from combining the two companies =
$4,253.7m – ($1,200m + $2,402.6m) = $651.1m

Cash offer

Chakula Co's shareholders will receive $0.66 per share from sale of Kawa Co, or
$0.66 x 2,000 million shares = $1,320m in total
Kawa Co original value per share = $0.60
Gain = $0.06/$0.60 = 10%

Lahla Co's total shareholders' value is estimated at = $4,253.7m - $1,320m = $2,933.7m, or
$2,933.7m / 1,200 million shares = $2.44 share
Lahla Co estimate of original value = $2,402.6m / 1,200 million = $2 per share
Gain = $0.44/$2 = 22%

Share-for-share Offer
Additional shares issued by Lahla Co= 2,000 million / 3 = 667 million
Equity value of combined company = $4,253.7m
Per share value = $4,253.7m / 1,867 million shares = $2.28

Gain to Kawa Co's shareholders
$2.28 – ($0.60 x 3) = $0.48
$0.48/$1.80 = 26.7%

Gain to Lahla Co's shareholders from combining the company
($2.28 - $2) / $2 = 14.0%

Lahla Co: Impact on capital structure from the two payment methods

Lahla Co, before acquisition
Market value of equity: $2,402.6m (see above)
Market value of debt = 40/60 x $2,402.6m = $1,601.7m

Combined company, cash payment through debt borrowing
Market value of equity: $2,933.7m or 46.9%
Market value of debt = $1,601.7m + $1,320m + $400m* = $3,321.7m or 53.1%

*(**Note:** $2,933.7m + $3,321.7m = $6,255.4m; 46.9% = ($2,933.7m / $6,255.4m) x 100% and 53.1% = ($3,321.7m / $6,255.4m) x 100%)*

Combined company, share-for-share exchange
Market value of equity: $4,253.7m or 68.0%
Market value of debt: $1,601.7m + $400m* = $2,001.7m or 32.0%

*(**Note:** $4,253.7m + $2,001.7m = $6,255.4m; 68.0%% = ($4,253.7m / $6,255.4m) x 100% and 32.0% = ($2,001.7m / $6,255.4m) x 100%)*

* *In the above cases when the two companies are combined, it is assumed that Lahla Co will continue to service loan notes B or cancel them by paying them off through an equivalent borrowing.*

Marking Guide:

Part (a)
Shareholders 2-3

Other stakeholders		2-3
Other comments		1-2
	Max	**5**
Part (b)		
3 marks for discussing each of the two propositions		**6**
Part (c) (i) (Appendices 1 and 2)		
Kawa Co Demerged		
Kawa Co, cost of capital		1
Sales revenue years 1 to 4		1
PBIT years 1 to 4		1
Taxation years 1 to 4		1
Additional asset investment years 1 to 4		1
Corporate value		2
Value per share		1
		8
Part (c) (ii) (Appendix 3)		
Lahla Co, current equity value		1
Kawa Co, estimate of PE ratio		1
Combined company, current equity value		1
Estimate of additional value		1
Cash offer: gain (both groups of shareholders)		2
Share offer: gain (both groups of shareholders)		3
Financing implications		3
		12
Part (c) (iii) Report		
Evaluation of financial and other factors		6-7
(evaluation report could include, for example, financial returns from demerger and each form of consideration, exit strategies, concerns about becoming minority shareholders, but also concerns for majority shareholders on the impact minority shareholders may have, assumptions made and whether the value created from the share-for-share exchange is realistic)		
Impact on the capital structure		2-3
	Max	**9**
Professional skills marks		**10**
	Total	**50**

Professional skills

Professional skills marks

Communication

- General report format and structure (use of headings/sub-headings and an introduction)
- Style, language and clarity (appropriate layout and tone of report response, presentation of calculations, appropriate use of the tools)

- Effectiveness of communication (answer is relevant, specific rather than general and focused to the requirement)

Analysis and Evaluation
- Appropriate use of the data to determine suitable calculations
- Appropriate use of the data to support discussion and draw appropriate conclusions
- Demonstration of reasoned judgement when considering key matters for Lahla Co
- Demonstration of ability to consider relevant factors applicable to each company's situation

Scepticism
- Effective challenge of forecast information supplied and assumptions to support key facts and/or decisions

Commercial acumen
- Effective use of examples and/or calculations from the scenario information and other practical considerations related to the context to illustrate points being made
- Recognition of external constraints and opportunities as necessary

Robson

2.

Suggested Solution:

(a)

Project cash flows: All figures are in $m

Year	**0**	**1**	**2**	**3**	**4**
Cash flows	(120.0)	20.9	20.6	28.7	104.6
Discount factors – 14% (w1)	1.000	0.877	0.769	0.675	0.592
Present values	(120.0)	18.3	15.8	19.4	61.9

Base case net present value = ($4.6m)

Base case net present value is negative and on this basis should therefore be rejected.

Financing side effects: All figures are in $m

Issue costs (w2)	(2.0)
Tax shield on subsidised loan (w3)	0.9

Tax shield on bank loan (w4)	2.0
Subsidy benefit (w5)	5.7
Total benefit of financing side effects	6.6

Recommendation
The adjusted present value of the project is $2.0m and so the project should be accepted.

Workings:

Working 1 (w1): Ungeared cost of equity

β_a = 1.222

$K_{eu} = r_f + \beta_a (r_m - r_f) = 0.03 + (1.222 \times 0.09) = 14\%$

Working 2 (w2): Issue costs

$100m x 0.02 = $2,000,000

(Note: issue costs are payable out of cash reserves, so the finance does not need to be grossed up)

Working 3 (w3): Tax shield on subsidised loan

Annuity factor (9%, 4 years) = 3.240

$40m x 0.035 x 0.20 x 3.240 = $907,200

(Note: the risk free rate would also be acceptable as a discount rate)

Working 4 (w4): Tax shield on bank loan

Annual repayment = $50m / 3.240 = $15,432,098

Year	**1**	**2**	**3**	**4**
	$ 000	**$ 000**	**$ 000**	**$ 000**
Opening balance	50,000	39,068	27,152	14,164
Interest at 9%	4,500	3,516	2,444	1,275
Repayment	(15,432)	(15,432)	(15,432)	(15,432)
Closing balance	39,068	27,152	14,164	7
Tax relief on interest (20%)	900	703	489	255
Discount factor (9%)	0.917	0.842	0.772	0.708
Present value	825	592	378	181

Total present value = $1,976,000

Working 5 (w5): Subsidy benefit

Subsidy benefit = $40m x (0.09 – 0.035) x 0.80 x 3.240 = $5,702,400

(b) Factors each capital provider may consider

External shareholders

The chief executive's optimism regarding the rights issue may be misplaced. Robson Co's shareholders may question the need for another rights issue so soon after the last one. Nor may they have the funds available to take up their rights, particularly when there has been a series of fund raising exercises in the last six years. Whilst in theory the shareholders are able to sell their rights, this would mean accepting a dilution in their voting power, which may not be acceptable. Therefore it is possible a rights issue could fail. Even if Robson Co has the issue underwritten, failure of the rights issue would have an adverse impact on Robson Co's share price and the market's confidence in the board.

Shareholders may question the logic behind the new project and whether the forecast results can be delivered. They may need reassurance that lessons from the past have been learnt. The underwriting costs have been ignored in the financial appraisal even though these are likely to be significant and may prove fatal to the final outcome, particularly when the project's APV is quite marginal at $2m.

The loan will mean that Robson Co's gearing once again exceeds the average and shareholders will require higher returns to compensate for the increase in financial risk. The shareholders may question whether the commitment to service and repay the new loans may mean that Robson Co will have difficulty paying an acceptable level of dividend.

Subsidised loan provider
The subsidised loan programme provides capital for investment with the objective of boosting employment in a deprived part of the country. Since the funds ultimately originate from the taxpayer, the government is accountable for any funding decisions made. Robson Co's ability to service and ultimately repay the debt is therefore paramount. Robson Co's credit rating provides an assessment of the probability of default and the recent downgrade may cause concern. Even though Robson Co is unable to provide assets for security, the directors may still be faced with other covenants, for example restrictions on dividends or further borrowing which may upset shareholders.

The subsidy means demand for such loans is likely to be high and the selection criteria difficult so it is unlikely that the outcome is a foregone conclusion in the way Robson Co's CEO suggests. Based on the information provided it is unclear whether the new project would meet those selection criteria. Although Robson Co's new project is to be located in an area targeted for regeneration, it remains the case that the objective of the move is to automate the production line. Whilst jobs may still be created in a deprived area, net job creation nationwide is still likely to be negative. Whether such a policy would be attractive to the government, or the taxpayer, remains to be seen.

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

Marking Guide:

		Marks
(a)	Base case	1
	Ungeared cost of equity	1
	Issue costs	1

	Tax shield on subsidised loan	2
	Tax shield on bank loan	4
	Subsidy benefit	1
	Adjusted present value	1
	Recommendations	2
		13
(b)	Shareholders (eg fund availability, control, track record)	4 – 5
	Subsidised loan provider (eg job creation, default risk, covenants)	3 – 4
		Max 7
	Professional skills	**5**
		25

Professional skills

Analysis and Evaluation

- Appropriate use of the data to determine suitable calculations
- Appropriate use of the data to support discussion and draw appropriate conclusions
- Appraisal of information objectively to make a recommendation

Scepticism

- Demonstration of ability to consider all relevant factors applicable to the decisions made by the capital providers

Commercial acumen

- Effective use of examples and/or practical considerations related to the context to illustrate points being made relating to capital providers

Gogarth

3.

(a)

Net receipt

$37,400,000 – $14,500,000 = $22,900,000

Forward contract

$22,900,000/0.2374 = MR96,461,668

Futures

Buy MR September futures

Basis

Assume that basis reduces to zero at contract maturity in a linear fashion.

Predicted futures rate = 0.2366 + ([0.2378 – 0.2366] × 2/3) = 0.2374

Alternatively, use spot rate, 0.2358 + ([0.2378 – 0.2358] × 4/5) = 0.2374

Expected receipt = $22,900,000/0.2374 = MR96,461,668

Number of contracts = MR96,461,668/MR500,000 = 192.9, say 193

Amount over-hedged = (500,000 × 193 × $0.2374) – $22,900,000 = $9,100

Payment at forward rate = $9,100/0.2370 = MR38,397

Outcome

	MR
Futures (500,000 × 193)	96,500,000
Payment on forward market	(38,397)
	96,461,603

Options

Purchase MR September call options

Receipt = $22,900,000/0.2368 = MR96,706,081

Number of contracts = MR96,706,081/MR500,000 = 193.4 contracts, approximately 193 contracts

Premium = 193 × $0.0014 × 500,000 = $135,100

Premium in MR, translated at spot rate = $135,100/0.2355 = MR573,673

Amount under-hedged = $22,900,000 – (193 × 500,000 × $0.2368) = $48,800

Translated at forward rate = $48,800/0.2374 = MR205,560

Outcome, assuming options are exercised

	MR
Options (500,000 × 193)	96,500,000
Receipt on forward market	205,560

Premium	(573,673)
	96,131,887

Recommendations

The forward contract give a marginally higher receipt than the futures. Futures would be subject to basis risk, the risk that the difference between the futures price and spot rate does not decrease linearly towards the maturity of futures. This means that the receipt may be uncertain. Futures also require a margin payment, an initial payment of cash into a margin account operated by the futures exchange, with further payments if losses are made on contracts.

Options give a lower receipt, because of the need to pay a premium. Gogarth Co may consider options if it considers there is a chance that the dollar will be in a stronger position against the Malaysian ringgit than suggested by the forward rate, or if one or other transaction is likely to fall through.

Overall, Gogarth Co should choose the forward contract as it offers the marginally higher receipt and is not subject to basis risk.

Note: Other valid recommendations could be made.

(b)

Economic risk is the longer-term risk that the present value of future cash flows may be increased or reduced by exchange rate movements. The treasury function will be involved in the development of longer-term responses, as the derivatives the treasury function will use for hedging of short-term exchange risk will not be appropriate.

Risk analysis

The treasury function needs to identify the cash flows that may be affected by exchange rate movements. These may not just include transactions with overseas customers and suppliers. Home market sales can also be affected if, for example, the currency of the country where a foreign competitor is based weakens against the ringgit and the competitor can then afford to charge cheaper ringgit prices.

The treasury function must also identify the factors affecting exchange rate movements in the longer term and assess what their impact is likely to be. This could include predicted movements, for example changes in the economic cycle, and also the impact of sudden economic shocks. The treasury function will need to assess the impact of these exchange rate movements on Gogarth Co. This will include consideration of the other impacts that the factors affecting exchange rates will have, for example a change in interest rate policy affecting demand for electrical equipment directly as well as influencing exchange rate levels.

Risk management

The treasury function will be particularly involved in determining funding policy in the context of the need to manage economic risk. One aspect of economic risk management is matching any assets held in a foreign country with a loan in that country's currency. The treasury function will determine the suitability of borrowing abroad and the best possible arrangement if foreign currency loans are required.

Economic risk can also be managed by diversifying customer, supplier and operational bases and changing pricing policy. The treasury function will be involved in assessing the possible impacts of policy changes. However, the decisions will be taken in the context of operational considerations, such as supplier management, and wider strategic considerations, such as scope of operations.

Marking Guide:

(a)	Netting of receipt and payment	1
	Forward contract	1
	Futures	
	Buy/Sept/No of contracts	1
	Lock in rate	2
	Expected receipt	1
	Receipt from under/over hedge	1
	Options	
	Number of contracts	1
	Premium	2
	Forward hedge	1
	Outcome	1
	Discussion	3 – 4
	Max	**15**
(b)	Understanding of economic risk	1
	Up to 2 marks for each well-developed point (points could include identification of cash flows affected, identification of influences on exchange rate, role in implementing economic risk management, role in advising on economic risk management)	5
	Max	**5**
	Professional skills marks	5
		25

Professional skills

Analysis and Evaluation

- Appropriate use of the data to determine suitable calculations
- Appropriate use of the data to support discussion and draw appropriate conclusions
- Appraisal of information objectively to make a hedging recommendation

Commercial acumen

- Effective use of examples and/or practical considerations related to the context to illustrate points being made relating to hedging the transaction or economic risk