

## Suggested Solution

### Section A

#### Question 1

To: Directors of Drimpton Co

From: Consultant

Date:

Subject: Investment in Edland

#### Introduction

This report considers whether it would be beneficial for Drimpton Co to establish a subsidiary and production facilities in Edland. It considers the financial projections, presented in detail in the appendix, assesses the assumptions made in the projections and the impact of ESG considerations on Drimpton Co.

(i)

#### Recommendation

According to the calculations in the appendix, the investment in the subsidiary in Edland shows a positive net present value of \$3,490,000, suggesting that on financial grounds, the investment should be undertaken. However, before making a final decision, Drimpton Co's board should conduct scenario analysis with different assumptions, firstly with a longer length of time than four years and secondly under different ESG policies.

(ii)

#### Assumptions

Quantities sold are estimated to double between year 1 and year 4. The quantities will depend on how much the market for air conditioning units expands and also whether Drimpton Co can maintain or enhance its competitive position in the markets in the CTA. If Drimpton Co sells smaller units, it may be at a cost disadvantage as a newcomer compared with established competitors. The lost sales of larger air conditioning units are also assumed to have been estimated accurately.

No information is given about the contribution margin and whether it is greater than the margin currently obtained in Ceeland. Lower production and distribution costs will enhance the margin, but the margin will also be affected by Drimpton Co's pricing policy, which may have to be reviewed regularly given the sensitivity of the market to price. It may also be affected by Drimpton Co's stance in relation to ESG issues, particularly labour costs. The subsidiary may also take more sales than expected away from Drimpton Co, meaning that the lost contribution is understated.

No information is given about how the cost of capital has been determined. If it is Drimpton Co's current cost of capital, then that assumes the investment's business risk is not significantly different from its current business risk. Any change in business risk is likely to be primarily due to manufacturing in Edland rather than Ceeland. Country risk factors in relation in Edland may, for example, result from difficulties in manufacturing in a different business culture to Ceeland or from any political instability in Edland. If Drimpton Co, like its competitors in Edland, is planning to sell smaller air conditioning units than it does currently, this could also impact business risk and therefore cost of capital.

The tax written down value has been taken as a reasonable estimate of realisable value. However, this figure may not reflect the commercial reality of disposing of the subsidiary at the end of year 4. A more significant assumption is that the subsidiary will be sold. This may be unlikely as the subsidiary is still expected to achieve increased sales in year 4 and the case for continuing after year 4 may be strong. Calculations based on the scenario of the subsidiary continuing after year 4 should be undertaken.

Purchasing power parity theory has been used to predict exchange rates. This assumes that nominal exchange rate changes are linked to changes in relative inflation rates and those inflation rates are as predicted. However, purchasing power parity may apply more in the longer-term. In the shorter-term other factors may affect exchange rates, for example interest rates, market sentiment and policies of Edland's government and the CTA as a whole.

A number of other assumptions have been made in the calculations. Investment is assumed to take place immediately, whereas logistically this may be difficult. Investment amount, fixed costs, component costs and working capital requirements are assumed to have been estimated correctly – again Drimpton Co's ESG stance may impact on these figures. Tax rates are assumed to remain unchanged and the bi-lateral tax treaty between Ceeland and Edland to remain in place. Sensitivity analysis should be undertaken on the more significant assumptions.

### **(iii)**

#### **Issues with ESG**

Drimpton Co appears to be faced with conflict between investors over the extent to which it fulfils ESG criteria and it may be very difficult to reconcile their views. Some investors may have invested in Drimpton Co on the basis of expectations about the ESG policies Drimpton Co will pursue, impacting upon the risks associated with the company. Any changes in policies may need to be communicated carefully to them, or else they may choose to dis-invest from Drimpton Co depending on what it decides to do, impacting its share price. However, an increasing number of investors may want Drimpton Co to increase its commitment to fulfilling ESG criteria and it may not be realistic for Drimpton Co to pay little attention to them.

Adherence to ESG criteria across all of Drimpton Co's business may impact upon the cost structure of the investment. Consistency in remuneration of employees in Edland compared with Ceeland may result in higher labour costs. These cost increases may make it more difficult for Drimpton Co to compete in Edland on selling price and would seem to go against a significant reason for investing in Edland, namely, to lower the costs relating to sales there.

The increasing emphasis on ESG may also impact decision-making in the CTA. The CTA may develop stricter regulations over the next few years in areas such as emissions. However, this may not necessarily be a problem for Drimpton Co if it already complied with any new regulations (either voluntarily or because it already had to comply with similar regulations in Ceeland). Local producers in the CTA may, however, face increased costs if they are forced to apply stricter standards to their products.

Longer-term, Drimpton Co faces the existential threat of its air conditioning units adversely affecting the environment due to any emissions they generate and the amount of electricity they use. It may be unlikely that the demand for air conditioning units will disappear completely, but it may lessen as more environmentally-friendly ways of cooling are developed.

### **Recommended actions**

Drimpton Co's board needs to assess what its situation is in relation to the most significant ESG issues which it faces and decide on what attitudes it will take to them. Once decided, these need to be formulated in a consistent business-wide plan and Drimpton Co's objectives clearly disclosed in its external reporting.

The attitude taken may depend on the views of shareholders and possibly other stakeholders as well, such as environmental pressure groups. Drimpton Co should explain to investors what it is doing in relation to ESG criteria and demonstrate, using KPIs, the progress it has made.

Drimpton Co is, however, likely to have to go beyond reporting and actively consult with investor and stakeholder representatives. This may help keep them happy, limiting damage on share price and reputation, and can also be seen as acting in accordance with the governance element of ESG. It may consider consulting with governments in the CTA to try to influence the development of proportionate regulations.

Drimpton Co's policy in relation to its employees may come under scrutiny in the social element of ESG. Drimpton Co may need to apply the same remuneration policy in Edland as it does in Ceeland, so that if employees in Ceeland are paid better than the average wage in Ceeland, employees in Edland should be paid higher than the average wage in Edland. This would still lead to a cost saving for manufacturing in Edland compared with Ceeland, as average wages in Edland are lower. Drimpton Co may also be able to use the resources it has to provide better non-financial benefits such as training and

development opportunities than other employers in Edland do. Treatment of employees and employee health and safety should be the same as applied in Ceeland.

Drimpton Co should focus on implementing policies which will be beneficial financially as well as fulfilling ESG criteria. Investing in Edland will help it do this anyway by removing the need to transport products from Ceeland, reducing the environmental impact of product distribution. It may also look to move products by more environmentally friendly means within the CTA. Transferring components from Ceeland will also have an environmental impact and Drimpton Co may look to reduce this and also costs of transportation by sourcing from a supplier in the CTA.

Drimpton Co has a reputation for product development and an ability to invest in its products which local suppliers in the CTA lack. Given this, it may choose to compete by differentiation rather than price. It could use its product development resources to redesign its air conditioning units, so that they can be marketed as having less impact on the environment and being more efficient to use, limiting the energy costs of customers.

Longer-term, Drimpton Co will need to re-assess its strategy in accordance with changes in the industry environment, particularly as other methods of cooling develop. It may need to consider diversification into more environmentally friendly and sustainable products.

### **Conclusion**

The investment appraisal calculations appear to support the establishment of a subsidiary in Edland, subject to further scenario analysis being undertaken. If the subsidiary is established it should operate in accordance with Drimpton Co's wider ESG strategy which the board needs to formulate.

**Appendix: Investment appraisal of subsidiary in Edland (i)**

<b>Year</b>	<b>Working</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
		<b>P000</b>	<b>P000</b>	<b>P000</b>	<b>P000</b>	<b>P000</b>
Local contribution before component costs	2		16,000	23,100	33,390	37,753
Component costs	3		(5,785)	(8,351)	(12,070)	(13,648)
Fixed costs			(3,200)	(3,360)	(3,562)	(3,776)
Profit before tax			7,015	11,389	17,758	20,329
Taxation	4		97	(1,153)	(2,708)	(4,066)
Profit after tax		-	7,112	10,236	15,050	16,263
Initial investment		(30,000)				12,656
Working capital		(1,440)	(640)	(920)	(390)	3,390
Cash flows (P000)		(31,440)	6,472	9,316	14,660	32,309
Exchange rate	1	6.2000	6.0262	5.9693	6.0262	6.1421
		<b>\$000</b>	<b>\$000</b>	<b>\$000</b>	<b>\$000</b>	<b>\$000</b>
Cash flows (\$000)		(5,071)	1,074	1,561	2,433	5,260
Additional tax (8%)	4		6	(77)	(180)	(265)
Component contribution	3		576	839	1,202	1,333
Tax on component contribution at 28%			(161)	(235)	(337)	(373)

Lost contribution	5	(246)	(359)	(514)	(570)	
Tax on lost contribution (28%)		69	101	144	160	
Cash flows from project in Ceeland		(5,071)	1,318	1,830	2,748	5,545
Discount rate (10%)		1.000	0.909	0.826	0.751	0.683
Net present value		(5,071)	1,198	1,512	2,064	3,787
Total net present value		3,490				

**Workings:****1 Exchange rate**

Year	1	2	3	4
	$6.2000 \times$	$6.0262 \times$	$5.9693 \times$	$6.0262 \times$
	$1.04/1.07 =$	$1.05/1.06 =$	$1.06/1.05 =$	$1.06/1.04 =$
	6.0262	5.9693	6.0262	6.1421

**2 Local contribution before component costs**

Year	1	2	3	4
	<b>P000</b>	<b>P000</b>	<b>P000</b>	<b>P000</b>
	$80 \times P200 =$	$110 \times P200 \times$	$150 \times P200 \times$	$160 \times P200 \times$
	16,000	$1.05 = 23,100$	$1.05 \times 1.06 =$	$1.05 \times 1.06 \times$
			33,390	$1.06 = 37,753$

**3 Components**

Year	1	2	3	4
	<b>\$000</b>	<b>\$000</b>	<b>\$000</b>	<b>\$000</b>
Sale			$150 \times \$12 \times$	$160 \times \$12 \times$
		$110 \times \$12 \times$	$1.06 \times 1.05 =$	$1.06 \times 1.05 \times$
	$80 \times \$12 = 960$	$1.06 = 1,399$	2,003	$1.04 = 2,222$
Contribution (60%)	576	839	1,202	1,333
	<b>P000</b>	<b>P000</b>	<b>P000</b>	<b>P000</b>

Purchase	$960 \times 6.0262 =$ 5,785	$1,399 \times 5.9693$ $= 8,351$	$2,003 \times 6.0262$ $= 12,070$	$2,222 \times 6.1421$ $= 13,648$
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#### 4 Taxation

Year	1	2	3	4
	P000	P000	P000	P000
Cash flows before tax	7,015	11,389	17,758	20,329
Tax allowable depreciation	(7,500)	(5,625)	(4,219)	0
Taxable profits/(losses)	(485)	5,764	13,539	20,329
Tax Edland (20%)	97	(1,153)	(2,708)	(4,066)
	\$000	\$000	\$000	\$000
Tax Ceeland (8%/Exchange rate)	6	(77)	(180)	(265)

Realisable value at end of year 4 (P000) =  $30,000 - 7,500 - 5,625 - 4,219 = 12,656$

#### 5 Lost contribution

$\$70 \times 0.4 = \$28$  per unit

Year	1	2	3	4
	\$000	\$000	\$000	\$000
				$160 \times \$28 \times$
		$110 \times \$28 \times$	$150 \times \$28 \times$	$0.11 \times 1.06 \times$
	$80 \times \$28 \times 0.11$	$0.11 \times 1.06 =$	$0.11 \times 1.06 \times$	$1.05 \times 1.04 =$
	$= 246$	$359$	$1.05 = 514$	$570$

## Question 2

(a)

### Acquisition strategy

The non-executive director assumes that shareholders will welcome any acquisition which reduces risk. Diversification into new products with different income streams and possibly more certain cash flows can reduce risk in the eyes of shareholders and debt providers. The reduction in risk may reduce the cost of capital and increase the value of the company.

However, shareholders may not welcome acquisitions which reduce risk. Clientele theory suggests that companies will attract shareholders who are broadly happy with the current mix of risk and return.

Shareholders may also not welcome diversification into new products. They may doubt whether Oxwick Co's management will be able to achieve gains in value for products which they have no experience managing. Shareholders may also be able to diversify more easily and cheaply than Oxwick Co can itself.

Buying a supplier would be a way of reducing risk, particularly given Oxwick Co's dependence on supply of ingredients for its drinks. Acquisition may be the most effective method of guaranteeing a source of supply. However, Oxwick Co can currently compel its suppliers to offer the best deals in price and delivery by using competitive tendering. If it owns a supplier, the competitive element is lost and costs may increase.

### Acquisition of Ludham Co

The argument that as Ludham Co produces the same products as Oxwick Co, acquiring it will have no value is very questionable. The acquisition offers market diversification into new outlets, possibly giving access to Oxwick Co's other products. Oxwick Co appears also to have greater potential resources to market and sell the Ludorchar brand. The assumption that there will be synergies appears reasonable. The acquisition could result in economies of scale, production efficiencies, wider distribution channels and greater market power, which are more likely to be exploited given Oxwick Co's success in the soft drinks industry.

(b)

Oxwick Co equity market value =  $\$11.52 \times 200\text{m} = \$2,304\text{m}$

Oxwick Co P/E ratio =  $\$2,304\text{m}/\$128\text{m} = 18$

Ludham Co P/E equity valuation =  $18 \times 0.6 \times \$52\text{m} = \$561.6\text{m}$

### Combined company cash flows

Year	1	2	3	4
	\$m	\$m	\$m	\$m
Post-tax cash flows (W)	270.0	302.4	332.6	355.9

Additional investment	(28.0)	(25.9)	(24.2)	(18.6)
Free cash flows	242.0	276.5	308.4	337.3
Discount factor (12%)	0.893	0.797	0.712	0.636
Discounted free cash flows	216.1	220.4	219.6	214.5

### Working

	<b>2</b>	<b>3</b>	<b>4</b>
	<b>\$m</b>	<b>\$m</b>	<b>\$m</b>
Post-tax cash flows	$\$270.0\text{m} \times 1.12 =$ $\$302.4\text{m}$	$\$302.4\text{m} \times 1.1 =$ $\$332.6\text{m}$	$\$332.6\text{m} \times 1.07 =$ $\$355.9\text{m}$

### Gain in value

Discounted free cash flows years 1 – 4 = \$870.6m

Discounted cash flows year 5 onwards =  $(\$355.9\text{m} \times 0.636 \times 1.05)/(0.12 - 0.05) = \$3,395.3\text{m}$

Combined company valuation =  $\$870.6\text{m} + \$3,395.3\text{m} = \$4,265.9\text{m}$

Combined company equity value (80% x \$4,265.9m) = \$3,412.7m

Share of gains accruing to Oxwick Co's shareholders =  $\$3,412.7\text{m} - \$2,304\text{m} - (\$561.6\text{m} \times 1.15) = \$462.9\text{m}$

% increase in value =  $(\$462.9\text{m}/\$2,304\text{m}) \times 100\% = 20.1\%$

As the % share of gains exceeds the 15% requirement, the acquisition will be acceptable to Oxwick Co's shareholders.

### (c)

#### Valuation of Ludham Co

Using the price-earnings ratio of Oxwick Co and reducing it by 40% may be questionable. It is normal to reduce the price-earnings ratio of a listed company to arrive at an appropriate ratio for an unlisted company, but 40% is an arbitrary %, possibly inaccurate. In addition, the only reason for the reduction is Ludham Co is unlisted, so it assumes that Oxwick Co and Ludham Co are similar in other ways, whereas Ludham Co's recent profits have been static while Oxwick Co's profits have increased.

There is no guarantee that Ludham Co's directors and shareholders will agree with the valuation and accept the price offered by Oxwick Co. Oxwick Co's adding a premium to the valuation to determine what Ludham Co's shareholders will accept may be realistic. However, Ludham Co's shareholders are likely to have more information about the

company's future prospects and cash flows and may therefore determine a higher (and possibly more realistic) valuation using free cash flows.

### **Valuation of combined company**

The valuation of the combined company is dependent on the projected increases in free cash flows being realistic. It would be easier to assess this if information was supplied about sales quantities and prices, and operating costs. Oxwick Co does not have detailed information about Ludham Co's cash flows or forecasts, so its own forecasts in relation to Ludham Co's business may not be accurate. There has also been no specification of the value of synergies, so it is impossible to tell whether these are realistic. Management may have been over-optimistic in estimating synergies and underestimated integration costs, particularly in relation to IT and HR.

The valuation is particularly dependent on 5% growth being achievable into perpetuity. 5% is a high annual growth rate for a mature business. Oxwick Co should consider alternative scenarios which assume growth in the early years and steady cash flows thereafter.

The assumption that there will be no additional capital investment after year 4 may be unrealistic. The valuation is also dependent on the correct estimation of the cost of capital. An increase in the cost of capital will decrease it.

**Question 3****(a)****\$24m loan****Forward rate agreement**

Net payment is \$461,600 and effective annual interest rate is 5.77%, as stated in Exhibit 1.

**Futures**

Sell June futures, as the hedge is against a rise in interest rates and the borrowing occurs in May.

Number of contracts =  $\$24\text{m}/\$500,000 \times 4 \text{ months}/3 \text{ months} = 64 \text{ contracts}$

**Basis**

Current price (1 February) – futures price = basis

$(100 - 5.10) - 94.55 = 0.35$

Unexpired basis on 1 May =  $2/5 \times 0.35 = 0.14$

**Central bank base rate increases to 5.9%**

	\$
Underlying borrowing cost as above	(504,000)
Expected futures price	
$100 - 5.9 - 0.14 = 93.96$	
Gain on the futures market	
$(0.9455 - 0.9396) \times \$500,000 \times 3/12 \times 64$	47,200
Net borrowing cost	(456,800)
Effective annual interest rate	
$\$456,800/\$24\text{m} \times 12/4$	5.71%

**\$18m investment****Options**

Buy call options as need to hedge against a fall in interest rates.

Number of contracts =  $\$18\text{m}/\$500,000 \times 5 \text{ months}/3 \text{ months} = 60 \text{ contracts}$

**Basis**

Current price (1 February) – futures price = basis

$(100 - 5.10) - 94.50 = 0.4$

Unexpired basis on 1 September =  $1/8 \times 0.4 = 0.05$

**Central bank base rate falls to 4.5%**

Exercise price	94.75	
Expected futures price		
$100 - 4.5 - 0.05$	95.45	
Exercise?	Yes	
Gain in basis points	70	
		\$
Gain from options		
$0.0070 \times 3/12 \times \$500,000 \times 60$	52,500	
Investment return		
$4.2\% \times 5/12 \times \$18m$	315,000	
Premium as above	(22,350)	
Net cost	345,150	
Effective annual interest rate		
	4.60%	
$\$345,150 / \$18m \times 12/5$		

### Advice

In each case, the worst-case scenario has been considered, i.e. the lower rate on the investment and the higher rate on the loan. For the loan, the futures give a slightly better result than the forward rate agreement and Abertafol may choose it for that reason. The result for the futures is dependent on the assumptions that basis diminishes linearly and there is no basis risk, which may not be true in practice. The assumption that there is no margin requirement may not also be true in real-life. The forward rate agreement has a theoretical risk of default as it is an over-the-counter policy, but this should be very small if the counterparty is a reputable financial institution.

For the investment, the forward rate agreement gives the higher guaranteed return if the interest rate falls. If Abertafol Co is primarily concerned with certainty of cash flow, it will choose the forward rate agreement. The option gives upside potential compared with the forward rate agreement and if Abertafol Co believes that it is unlikely that interest rates will fall (either because it believes the governing party will win the election or that the opposition party will not fulfil its promise to reduce interest rates) it should choose the options.

### (b)

#### Director A

The argument that shareholders do not expect Abertafol Co to use derivatives as it is not part of their trading purpose could apply if it was looking to make profits out of trading in derivatives for speculative purposes. Shareholders might question trading for these reasons and whether use of derivatives was increasing the risk levels they faced.

However, that is not the case here. In these circumstances derivatives are being used for hedging purposes, to limit the risks to cash flows the company faces. It could be argued that shareholders would expect Abertafol Co to take reasonable steps to manage risks, particularly as levels and direction of interest rate movement are quite uncertain at present. If the risks are not hedged, Abertafol Co could lose out doubly, having to pay more interest and receiving less interest than if it took steps to hedge.

Abertafol Co will also generally wish to limit uncertainty when it is budgeting. Using derivatives limits how much actual payments or receipts could vary from budgeted figures, whereas the maximum possible variations from budgeted figures if derivatives are not used are uncertain and could be large.

### **Director B**

It is true that interest rates might rise or fall, but not to the levels predicted. As regards the loan, if interest rates did not go up beyond 5.31%, Abertafol Co would end up paying more as a result of hedging. The terms for the futures and forward rate agreements reflect market expectations that rates will rise to around this level. This suggests that the risk of Abertafol Co paying significantly more on the loan as a result of hedging is small.

As regards the interest rate on the investment, the forward rate is set bearing in mind the uncertainty about the ultimate direction of interest rate change as well as its amount. If the opposition party wins the election, the forward rate agreement is likely to lead to a higher net receipt (receiving 5.05% would imply an offer rate of 5.35% on the forward rate agreement, when the opposition party is planning to reduce the central bank base rate below 5.1%). The current government would have to have increased rates above 5.35% for the forward rate agreement to be less profitable than not hedging.

### **Director C**

Although not evaluated here, if the central bank base rate rose to 5.9%, options would not be exercised. In this situation, options would represent a less profitable choice than not hedging because of the premium paid.

Options would be a better choice than not hedging if they were exercised and the central bank base rate fell below 4.9%, meaning interest received was below 4.6%. This would imply that the opposition party had won the election and fulfilled its promise to reduce interest rates. However, if the central bank rate fell to such an extent that options were exercised, the forward rate agreement would give a higher effective annual interest rate than options.

Therefore, it is true that options would never be the best solution whatever the change in interest rates.

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

## Mark scheme

### Question 1

	<b>Marks</b>
<b>(i)</b> Local contribution	2
Component costs	3
Taxation	2
Working capital	1
Terminal value of project	1
Estimated future exchange rates based on purchasing power parity	2
Cash flows in \$	1
Additional tax on foreign profits	2
Component contribution	1
Tax on component contribution	1
Lost contribution	2
Tax on lost contribution	1
Net present value	1
Recommendation	1

#### Maximum 21 marks

<b>(ii)</b> 1 mark per relevant point:	8
Assumptions (assumptions can include sales quantities, contribution, cost of capital, realisable value and time horizon, inflation and exchange rates, tax, need for scenario and sensitivity analysis)	

#### Maximum 8 marks

<b>(iii)</b> Issues (issues can include conflicting investor demands, cost impacts on investment, future regulation, impact of product on environment)	5 – 6
Actions (actions can include assessment of situation and development of plan, shareholder/stakeholder consultation, consistent treatment of employees,	5 – 6

methods for reducing environmental footprint, marketing as environmentally-friendly, longer-term diversification)

**Maximum 11 marks**

**Professional skills marks:**

**Communication**

General report format and structure (use of headings, sub-headings and an introduction)

Style, language and clarity (tone of report response, presentation of calculations, appropriate use of the tools, easy to follow and substantive amount of content)

**Analysis and Evaluation**

Logical and structured approach taken to numerical analysis and recommendation with clear and effective presentation of calculations demonstrated

**Scepticism**

Effective challenge of the assumptions provided in the scenario showing ability to probe into the implications for Drimpton Co

**Commercial acumen**

Issues related to ESG raise valid commercial considerations for Drimpton Co and actions recommended are practical and plausible for Drimpton Co

**Maximum 10 marks**

**Total 50 marks**

**Question 2**

- (a) Non-executive director's views on need for acquisition to reduce risk (points can include smoothing cash flows, reduction in cost of capital and increase in company value, clientele effect, difficulty of managing new products, shareholders' ability to diversify, supply chain benefits) 3 – 4
- Non-executive director's view of proposed acquisition 2 – 3

**Maximum 5 marks**

- (b) Current valuation – Oxwick Co 1
- Current valuation – Ludham Co 1
- Post-tax cash flows 1
- Additional investment 1
- Present value of free cash flows Years 1 – 4 1
- Present value of free cash flows Year 5 onwards 2
- Equity value of combined company 1
- Gain for Oxwick Co's shareholders 1
- Conclusion 1

**Maximum 10 marks**

- (c) 1 mark per relevant point 5
- (points can include use of Oxwick Co's P/E ratio and choice of 40% discount, possibility that Ludham Co's shareholders may make a higher valuation using free cash flows and demand higher price, assumptions about growth of cash flows (particularly after year 4), synergies and cost of capital)

**Maximum 5 marks****Professional skills marks:****Analysis and Evaluation**

Logical and structured approach taken to numerical analysis and conclusion with clear and effective presentation of calculations demonstrated

**Scepticism**

Effective challenge of the valuation methods showing ability to probe into the implications

**Commercial acumen**

Assessment of the non-executive director's views in relation to Oxwick Co's acquisition strategy and the acquisition of Ludham Co addresses valid commercial issues

**Maximum 5 marks****Total 25 marks**

**Question 3**

	<b>Marks</b>
<b>(a)</b>	
Sell futures	1
Number of contracts	1
Unexpired basis calculation	1
Impact of interest rate increase with futures	2
Number of contracts	1
Unexpired basis calculation	1
Premium calculation	1
Exercise options?	1
Impact of interest rate increase/decrease with options	1
Advice	3 – 4
(points can include loan: futures margins and basis risks, FRA counterparty risk; investment: FRA certainty of cash flow, options give upside which may be beneficial depending on government policy choices)	

**Maximum 13 marks**

<b>(b)</b>	2 – 3 marks for each of the three queries assessed	7
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**Maximum 7 marks****Professional skills marks:****Analysis and Evaluation**

Logical and structured approach taken to numerical analysis with clear and effective presentation of calculations demonstrated

**Scepticism**

Validity of the director's queries is probed and effectively challenged

**Commercial acumen**

Advice on the hedging strategies addresses valid commercial issues and is relevant to Abertafol

**Maximum 5 marks****Total 25 marks**