Answers

1 (a) Adjusted present values (APVs) separate out a project's cash flows and allocate a specific discount rate to each type of cash flow, dependent on the risk attributable to that particular type of cash flow. Net present value (NPV) discounts all cash flows by the average discount rate attributable to the average risk of a project.

One reason why APV may be preferable to NPV is because by separating out different types of cash flows, the company's managers will be able to see which part of the project generates what proportion of the project's value. Furthermore, allocating a specific discount rate to a cash flow part helps determine the value added or destroyed. In this example, Okan Co is able to determine how much value is being created by the investment and how much by the debt financing. For complex projects, investment related cash flows could be further distinguished by their constituent risk factors, where applicable.

(b) Report to the board of directors (BoD), Okan Co

Introduction

This report evaluates, and provides a justification and decision, on whether Okan Co should pursue Project Alpha or Project Beta, based on the important factors identified by the company, namely the returns generated by the projects, the projects' risks and non-financial aspects.

Evaluation

Financing

Using forward markets to hedge the expected receipt in six months' time results in the higher receipt equalling Y$25,462,000 approximately. If the money markets hedge is used the receipt is Y$25,234,936 (appendix 1).

Using forward markets to hedge the expected receipt would therefore minimise the amount of debt borrowing. However, the amount receivable from the money markets hedge is based on the annual bank investment rate available to Okan Co of 2·4%. Okan Co may be able to use the funds borrowed to generate a higher return than the bank investment and therefore using money markets to undertake the hedge may be financially advisable. Okan Co should investigate any opportunities for higher income, but based on the current results, the forward market hedge is recommended to minimise the amount of debt finance needed.

Minimum amount of debt borrowing required is Y$24,538,000 approximately.

Project returns and risk

	Project Alpha	Project Beta
Base case net present value (NPV) (in six months' time)	Y$5,272,000 (appendix 2a)	Y$5,100,000 (appendix 2a)
Adjusted present value (APV)	Y$6,897,218 (appendix 2b)	Y$6,725,218 (appendix 2b)
Project duration	3·04 years (appendix 2c)	2·43 years (given)

Project Alpha's and Project Beta's base case NPVs and APVs are similar to each other, with Project Alpha expected to yield a small amount in excess to the yield expected from Project Beta. However, Project Beta's project duration is significantly lower. This is because a higher proportion of Project Beta's cash flows come earlier in the project's life, compared to Project Alpha. There is more certainty to earlier cash flows and this is reflected in the lower duration for Project Beta. Project Beta's risk is lower than Project Alpha.

In estimating the base case NPV and APV for Project Alpha, it is assumed that the cash flows are known with reasonable certainty and the inflation rates will not change during the life of the project. It is also assumed that the future exchange rate between the Y$ and the £ will change in accordance with the purchasing power parity differential. Furthermore, it is assumed that the prices and costs related to Project Alpha will increase in line with inflation during the six months before the project starts. For Project Alpha, it is assumed that the initial working capital requirement is funded by the company and not from the funds raised from the subsidised loan, similar to the assumption made for Project Beta. However, for both projects, Okan Co needs to consider, and take account of, the opportunity costs related to this.

In terms of the Project Alpha's discount rate, it is assumed that the given discount rate accurately reflects the business risk of the project.

Whilst this level of detail is not provided for Project Beta, it is assumed that similar assumptions will have been made for Project Beta as well. In the case of both projects, Okan Co should assess the accuracy or reasonableness of the assumptions, and if necessary, conduct sensitivity analysis to observe how much the projects' values change if input variables are altered.

Notwithstanding the assumptions and caveats made above, it would appear that Project Beta would be preferable to Project Alpha, given that it has a similar APV but a significantly lower risk.

Nevertheless, there may be good strategic reasons why Okan Co may select Project Alpha over Project Beta. For example, these reasons may include providing access to new markets, enabling Okan Co to erect barriers to entry against competitors or looking at follow-on opportunities as possible real options.

Justification

Due to the substantially lower risk (as measured by the project duration) and similar APV, it is recommended that Project Beta be selected by Okan Co. It is also recommended that forward markets are used to hedge the income expected in six months' time to part fund the project. This would minimise the debt borrowing needed.

However, this decision is predicated on the fact that the implications of the assumptions and the wider strategic reasons discussed above have been carefully considered by Okan Co.

Report compiled by:

Date

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

Appendices:

Appendix 1 (Part (b) (i)):

Expected receipt in six months' time, using forward markets
€10,000,000 x 2·5462 = Y$25,462,000

Expected receipt in six months' time, using money markets
€10,000,000/(1 + 0·022/2) = €9,891,197
€9,891,197 x 2·5210 = Y$24,935,708
Y$24,935,708 x (1 + 0·024/2) = Y$25,234,936

Minimum amount of debt borrowing Okan Co would require
Y$50,000,000 – Y$25,462,000 = Y$24,538,000

Appendix 2a (Part (b) (ii)): Projects Alpha and Beta, base case net present value, in six months' time

Base case net present value before considering financing side effects. All figures are in Y$000s.

Year	0	1	2	3	4
Sales revenue (w1)		17,325	34,304	62,890	33,821
Less:					
Production costs (w2)		(6,365)	(11,584)	(24,095)	(9,546)
Component costs (w3)		(3,708)	(5,670)	(11,877)	(4,578)
Cash flows before tax		7,252	17,050	26,918	19,697
Tax (w4)		1,050	(1,535)	(3,977)	(1,721)
Working capital	(1,733)	(2,547)	(4,288)	4,360	4,208
Plant purchase and sale	(50,000)				10,000
Net cash flows	(51,733)	5,755	11,227	27,301	32,184
Base case present value of cash flows (discounted at 10%)	(51,733)	5,232	9,279	20,512	21,982

Approximate, base case net present value (NPV) of Project Alpha = Y$5,272,000.

Base case net present value (NPV) of Project Beta = Y$(8,450,000 + 19,360,000 + 22,340,000 + 4,950,000) – Y$50,000,000 = Y$ 5,100,000

Workings:

Working 1 (w1): Sales revenue

Year	1	2	3	4
Pre-inflated revenues (Y$ 000s)	15,750	28,350	47,250	23,100
Inflation	x $1·1^1$	x $1·1^2$	x $1·1^3$	x $1·1^4$
Post-inflated revenues (Y$ 000s)	17,325	34,304	62,890	33,821

Working 2 (w2): Production costs

Year	1	2	3	4
Pre-inflated production costs (Y$ 000s)	6,120	10,710	21,420	8,160
Inflation	x $1·04^1$	x $1·04^2$	x $1·04^3$	x $1·04^4$
Post-inflated production costs (Y$ 000s)	6,365	11,584	24,095	9,546

Component costs are not inflated, but future exchange rates are based on purchasing power parity (PPP).

Working 3 (w3): Component cost

Year	1	2	3	4
PPP multiplier	3·03 x 1·04/1·02	3·09 x 1·04/1·02	3·15 x 1·04/1·02	3·21 x 1·04/1·02
Forecast Y$ per £1	3·09	3·15	3·21	3·27
Component cost (£)	1,200	1,800	3,700	1,400
Component cost (Y$)	3,708	5,670	11,877	4,578

Working 4 (w4): Tax

Year	1	2	3	4
Cash flows before tax	7,252	17,050	26,918	19,697
Tax allowable depreciation	(12,500)	(9,375)	(7,031)	(11,094)
Taxable cash flows	(5,248)	7,675	19,887	8,603
Tax payable (20%)	(1,050)	1,535	3,977	1,721

Appendix 2b (Part (b) (ii)): Projects Alpha and Beta, adjusted present value (APV), in six months' time

Issue costs = 3/97 x Y$24,538,000 = Y$758,907

Annual tax shield = 2·1% x Y$24,538,000 x 20% = Y$103,060
Annual interest saved on subsidised loan = 2·9% x Y$24,538,000 x 80% = Y$569,282

Annuity factor, years 1 to 4 at 5% interest = 3·546

Present value of the tax shield and loan subsidy benefit = (Y$103,060 + Y$569,282) x 3·546 = Y$2,384,125

Project Alpha APV	Y$
Base case NPV of Project Alpha (appendix 2a)	5,272,000
Issue costs	(758,907)
Present value of the tax shield and loan subsidy benefit	2,384,125
APV	6,897,218

Project Beta APV	Y$
Base case NPV of Project Beta (appendix 2a)	5,100,000
Issue costs	(758,907)
Present value of the tax shield and loan subsidy benefit	2,384,125
APV	6,725,218

Appendix 2c (Part (b) (ii)): Project Alpha's duration based on its base case present values of cash flows

Project Alpha

Year	1	2	3	4
PVs x years	5,232,000 x 1 = 5,232,000	9,279,000 x 2 = 18,558,000	20,512,000 x 3 = 61,536,000	21,982,000 x 4 = 87,928,000

Total PVs x time = 173,254,000 approximately
Total PVs = 57,005,000 approximately
Project Alpha duration = 173,254,000/57,005,000 = 3·04 years

(c) Explanation of why the subsidiary company may be exposed to economic risk and how it may be managed

Companies face economic exposure when their competitive position is affected due to macroeconomic factors such as changes in currency rates, political stability, or changes in the regulatory environment. Long-term economic exposure or economic shocks can cause a permanent shift in the purchasing power and other parity conditions. Normally, companies face economic exposure when they trade internationally. However, even companies which do not trade internationally nor rely on inputs sourced internationally may still face economic exposure.

In the case of Okan Co's subsidiary company, economic risk may have occurred because interest rates have been kept at a high level, causing the original parity conditions to break down. High interest rates will be attractive to international investors, as they can get higher returns and may lead to the Y$ becoming stronger relative to other currencies. This in turn would allow international competitors to produce goods more cheaply than the subsidiary company and thereby enhance their competitive position relative to the subsidiary company.

Managing economic exposure is difficult due to its long-lasting nature and because it can be difficult to identify. Financial instruments, such as derivatives, and money markets cannot normally be used to manage such risks. Okan Co's subsidiary company can try tactics such as borrowing in international or eurocurrency markets, sourcing input products from overseas suppliers and ultimately shifting production facilities overseas. None of these are easy or cheap, and can expose the company to new types of risks. Okan Co would also need to assess that any action it takes to manage economic risk fits into its overall risk management strategy.

(d) How each category or risk may be managed

Risks which fall into the severe and frequent category need immediate attention, as they could threaten the company's survival or derail its long-term strategy. The aim here would be to reduce the severity of the risks and the frequency with which they occur quickly. It may mean avoiding certain actions or abandoning certain projects, even if they could be profitable in the long term. Where a company has a real option, and does not need to take action which will result in high frequency and high severity of risk, it may prefer to wait and see what happens.

Where the frequency of risks occurring is high but their impact is not severe, action needs to be taken so that such risks do not become severe in the future. For example, the company could put systems into place to detect these risks early and plans to deal with them if they do occur. Where the same kind of risks occur often, the company may decide to have set processes for dealing with them. For example, where there is a loss of relatively unskilled staff, the company may decide to replace staff quickly with casual workers, but also have appropriate training facilities in place.

If there are risks which are severe but only happen occasionally or infrequently, the company should try to insure against these. Contingency plans could also be put into place to mitigate the severity. For example, if the consequences of IT failure are high when a business decides to move to a new system, it could put appropriate contingencies into place. These may include secondary backup IT systems or initially trialling the new system on a few business units before undertaking a complete role out.

Risks which are neither severe, nor frequent, should be monitored and kept under review, but no significant action should be taken. It is possible that any significant action would incur costs which would likely be higher than the benefits derived from eliminating such risks. Monitoring such risks will ensure that should they move out of this category into the more severe/frequent categories, the company can start to take appropriate action.

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

2 (a) Dividend capacity

	$m
Operating profit	2,678
Less: Interest (8% x $10,250m)	(820)
Less: Taxation (30% x ($2,678m – $820m))	(557)
Less: Investment in additional assets (25% x 0·03 x $2,678m/(1·03 x 0·02))	(975)
Forecast dividend capacity	326

(b) Growth in profit after tax

	20X3	20X4	20X5	Geometric mean annual growth rate
	%	%	%	%
Cadnam	8·0	4·0	1·9	4·6
Holmsley	7·1	6·9	7·6	7·2

Dividend payout ratios

	20X2	20X3	20X4	20X5
	%	%	%	%
Cadnam	55·4	56·4	59·7	64·6
Holmsley	37·7	37·1	36·5	35·7

Growth in dividends

	20X3	20X4	20X5	Geometric mean annual growth rate
	%	%	%	%
Cadnam	9·8	10·1	10·3	10·1
Holmsley	5·4	5·3	5·3	5·3

Residual profit (after tax-profit for the year – dividend – new investment)

	20X2	20X3	20X4	20X5
	$m	$m	$m	$m
Cadnam	333	338	41	(304)
Holmsley	330	375	419	486

Growth in share price

	20X3	20X4	20X5	Geometric mean annual growth rate
	%	%	%	%
Cadnam	9·6	4·9	2·5	5·6
Holmsley	3·8	6·1	6·8	5·6

Comments

Dividends

Both companies have shown fairly consistent increases over the last three years, with Cadnam Co's dividends increasing at around 10% each year, and Holmsley Co's dividends increasing at around 5% over the last three years. However, Holmsley Co's policy appears to be sustainable at present, whereas it is doubtful whether Cadnam Co's policy is sustainable.

Holmsley Co has managed to increase dividends, gradually also increasing investment in additional assets and residual profits, whilst at the same time having a decreasing dividend pay-out ratio.

In order to maintain its rate of dividend increase, however, Cadnam Co has had to pay out an increasing proportion of earnings each year. It seems that Cadnam Co may have sustained dividend increases up to 20X3 at the expense of additional investment, and is now having to increase additional investment significantly in order to make up for previous under-investment. In 20X5, Cadnam Co's residual profits became negative, and the dividend capacity calculation for 20X6 suggests that a much lower level of dividends would be appropriate.

Gearing

Holmsley Co's gearing appears to be stable at around the average for the industry, suggesting that perhaps it has found its optimum level. Up to 20X4, Cadnam Co could perhaps have been taking advantage of debt capacity to increase its debt towards this level. However, its gearing now appears to be on a rising trend, of necessity increasing significantly in 20X5 to fund both additional investment and increasing dividends, despite the rise in its share price. Cadnam Co's gearing is predicted to increase further in 20X6, but how long this is sustainable is uncertain.

Share price

The average increase for both companies over the last four years has been the same. However, the percentage increases over the last two years for Holmsley Co has been higher than for Cadnam Co. This suggests that the market has placed more significance on the higher % growth in Holmsley Co's after-tax profits than in Cadnam Co's higher % growth in dividends, maybe seeing this as an indication that Holmsley Co's strategy has been more successful and is more likely in future to deliver higher share price growth.

(c) Dividend policy

One possible question is whether the statement in the annual report fairly reflects the likely future dividend policy of Cadnam Co. The report gives the impression that the current dividend policy will be sustained, whereas the figures suggest that this may not be the case. If the policy proves not to be sustainable, it would suggest a failure either of integrity (if the directors made a statement with a high risk that it would not be true) or due care (that they failed to take into account indicators which suggested their policy is not sustainable). The directors may be questioned by the auditors about whether this statement is true and fair.

There is also the question of balancing the interests of different stakeholders. To some degree, criticism of rises in dividend and director remuneration levels versus increases in employee salary levels could be said to be a matter of opinion.

However, the fact that there is a government enquiry into low pay in the sector suggests that pay levels are lower than society deems desirable. The force of the criticisms may be enhanced by the statements which Cadnam Co has made about developing an integrated reporting approach. Integrated reporting is not just about extra details in the annual report, but also reflects an underlying policy of carrying out business which includes responsiveness to the needs of different stakeholders.

The dividend capacity and gearing figures may also call into question whether Cadnam Co's board is taking excessive risks. Does paying out increasing dividends in future mean that the company is likely to have inadequate resources to sustain its business, and may be jeopardising the interests of lenders and employees as well as stakeholders? Certainly there appears to be doubts about maintenance of future income levels with a number of contracts coming up for renewal and terms possibly being tightened by clients. Clients may be doubtful about renewing contracts if Cadnam Co's solvency appears doubtful.

Directors' remuneration

The directors' remuneration packages also raise concerns. Comparison with Holmsley Co shows that salary, which is not dependent on performance, is a more significant element of the remuneration packages at Cadnam Co than Holmsley Co. Both companies have bonuses which depend to some degree on performance. However, Cadnam Co's directors are also rewarded by loyalty bonuses, which again do not depend on performance but staying with the company. Holmsley Co has a share option scheme in place, which would seem to reward longer-term good performance, although it cannot be determined how significant a part of remuneration share options will be. Cadnam Co's remuneration scheme appears only to reward short-term profitability, possibly meaning that the directors may neglect the longer-term success and possibly even viability of the company.

3 (a) Financial synergies

Many acquisitions are justified on the basis that the combined organisation will be more profitable or grow at a faster rate than the companies operating independently. The expectation is that the acquisition will generate higher expected cash flows or a lower cost of capital, creating value for shareholders. The additional value created is known as synergy, the sources of which can be categorised into three types: revenue, cost and financial synergies.

Based on the scenario, there are a number of possible sources of financial synergy. As a private company, Danton Co is experiencing a funding constraint whereas Kerrin Co has significant cash reserves but limited growth opportunities. The combination of the two can create additional value since Danton Co may be able to utilise Kerrin Co's cash resources to fund its expansion in a way which would not have been possible otherwise, leading to an increase in the expected cash flows.

Assuming both companies' cash flows are less than perfectly correlated, those of the combined company will be less volatile than the individual companies operating independently. This reduction in volatility enables the combined company to borrow more and possibly cheaper financing than would otherwise have been possible. This increase in debt capacity, and therefore the present value of the tax shield, increases the value of the combined company in the form of a lower cost of capital.

Further benefits may arise if Kerrin Co is able to utilise Danton Co's unrelieved tax losses. Whilst Danton is no longer loss making and could offset these tax losses independently, the combined company may be able to obtain tax relief earlier since the acquisition increases the availability of profits against which carried forward tax losses can be offset. The present value of the tax saved will therefore be greater in the combined company.

If both companies were publicly traded, there would be no benefit from diversification since investors are capable of diversifying at a lower cost and with greater ease than the company. However, Danton Co is privately owned and the shareholders are therefore exposed to diversifiable unsystematic risk. Therefore the acquisition may lead to potential diversification and risk reduction benefits. The reduction in the cost of the capital increases the value of the combined company.

Overestimation of synergy value

There is evidence that bidding companies often overestimate the value of synergy arising from a potential acquisition with the result that companies pay too much for their target. When this happens, there is destruction in wealth for the bidding company's shareholders. There are a number of possible explanations for this problem.

First, merger and acquisition activity tends to be driven by the availability of cheap credit. At the peak of a wave of activity, there may be competition for targets, thereby increasing acquisition premiums.

Second, conflicts of interest may lead to a biased evaluation process. Deal advisers such as investment banks earn a large proportion of their fees from mergers and acquisitions. Their advice on whether an acquisition makes sense is potentially biased if they do not look after their clients' interests.

Third, management overconfidence may explain why this occurs. Acquiring companies may overestimate the acquisition synergy and/or underestimate the time it will take to deliver. Management may then be reluctant to admit mistakes when the facts change, even when there is still time to back out of a deal. Agency costs may be also a factor if managers are more interested in pursuing personal goals than maximising shareholder wealth.

Finally, there may be difficulties integrating the companies due to different work cultures and conflicts of interest.

Steps to address this problem

Kerrin Co's board needs to plan for synergy and take active steps to ensure that it is delivered. This responsibility needs to be allocated to someone who can ensure spare cash is utilised to invest in new growth opportunities, that tax losses are offset as efficiently as possible and that the combined company avails itself of cheaper financing. Companies which allocate this responsibility and monitor and review performance tend to be more successful in creating value. In order to avoid any bias, the deal advisers who stand to profit from an acquisition need to be separate from the evaluation process. Effective due diligence ensures the financial documents which form the basis of a valuation are scrutinised and inspected.

(b) Pre-acquisition valuations

Kerrin Co number of shares = 375m/0·5 = 750m
Kerrin Co market value = 750m x $5·28 = $3,960m
Future maintainable earnings (FME) = ($381·9) x 0·8 = $305·5m
Price earnings (PE) ratio = $3,960m/$305·5m = 12·96

Danton Co future maintainable earnings = ($116·3m + $2·5m) x 0·8 = $95·0m
Danton Co PE ratio = 12·96 x 1·20 = 15·55
Danton Co PE valuation = 15·55 x $95m = $1,477·3m

Combined Co pre-acquisition valuation = $3,960m + $1,477·3m = $5,437·3m

Post-acquisition valuation including synergies

Combined Co FME = $305·5m + $95m + ($20·5m x 0·8) = $416·9m
Combined Co PE ratio 12·96 x 1·1 = 14·3
Combined Co post-merger valuation = 14·3 x $416·9m = $5,961·7m
Value created based on synergies = $5,961·7m – $5,437·3m = $524·4m

Share-for-share offer

	Kerrin Co $m	Danton Co $m
Pre-acquisition valuation	3,960·0	1,477·3
Add premium ($1,477·3m x 0·3)		443·2
Balance of excess value to Kerrin Co:		
$524·4m – $443·2m	81·2	
Post-merger valuation	4,041·2	1,920·5
Relative valuation	2·1	1

Kerrin Co new share issue = 750m/2·1 = 357·14m
Number of existing Danton Co shares = 35m x 4 = 140m
Therefore share-for-share offer = 357·14/140, i.e. approximately 18 Kerrin Co shares for every 7 Danton Co old shares

Advice on terms of share-for-share offer

Danton Co shareholders would receive 140m x (18/7) = 360m new Kerrin Co shares.
Total Kerrin Co shares = 750m + 360m = 1,110m.

Kerrin Co shareholders own 67·6% (750m/1,110m) and Danton Co shareholders 32·4% (360m/1,110m) of the post-acquisition company.

Impact on shareholder wealth

	Kerrin Co $m	Danton Co $m
Pre-acquisition valuation	3,960·0	1,477·3
Cash offer		
Danton Co shareholders cash received:		
$13·10 x 140m shares		1,834·0
Kerrin Co post-acquisition equity valuation:		
$5,961·7m less acquisition cost of $1,834·0m	4,127·7	
Increase in shareholder wealth	4·2%	24·1%
Share-for-share offer		
Post-acquisition value		
Kerrin Co: (750/1,110) x $5,961·7	4,028·2	
Danton Co (360/1,110) x $5,961·7		1,933·5
Increase in shareholder wealth	1·7%	30·9%

The terms of the share-for-share offer meet the criteria specified by Danton Co's directors.

(c) Cash offer

The main advantage of a cash offer is that it provides Danton Co's shareholders with a certain and immediate return. However, the premium is lower compared to the share-for-share offer and may be reduced even further if the realised gain gives rise to a tax liability. By indicating their preferred premium under both offers, it is possible the shareholders have priced in the risks associated with an uncertain share-for-share offer and on this basis may be indifferent between the two. The cash offer may give rise to agency issues since Danton Co's founders no longer have a stake in the business even though Kerrin Co's board is keen to ensure the founders remain in position after the acquisition. The information provided is too limited to read too much into the intentions of the venture capitalist. However, typically a venture capitalist would be expected to exit within three to five years. In this case, they may prefer the certainty of the cash offer.

The cash offer transfers more of the added value to Kerrin Co without the need for dilution, which may appeal to the shareholders. As indicated in the question, Kerrin Co's existing reserves are sufficient to fund the cash offer although this may constrain future dividends and/or investment decisions.

Share-for-share offer

Both sets of shareholders benefit from increased wealth as a result of the share offer, albeit only marginally so in the case of Kerrin Co's shareholders. Another drawback is that Kerrin Co's shareholders' percentages are also diluted under this method. However, a share-for-share offer would ensure that Danton Co's founders' interests are aligned with Kerrin Co's shareholders, reducing possible agency costs. It also provides Danton Co's shareholders with the right to participate in the future growth of the larger company, which the cash offer would prevent.

No basis has been provided for the synergistic benefits; the increase in shareholder wealth is so marginal even a minor deviation from the estimates could result in a reduction in shareholder wealth for the owners of Kerrin Co. On this basis, it is quite likely they will not approve a share-for-share offer without further negotiation around the acquisition premium.

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

Strategic Professional – Options, AFM
Advanced Financial Management (AFM) **September/December 2019 Sample Marking Scheme**

					Marks
1	**(a)**	1–2 marks per well-discussed comment		Max	4
	(b)	**(i)**	**(Appendix 1)**		
			Forward market hedge		1
			Money markets hedge		2
			Minimum borrowing required		1
					4
		(ii)	**(Appendix 2a)**		
			Sales revenue		2
			Production costs		1
			Component costs		3
			Tax		2
			Working capital		2
			Project Alpha base case NPV		1
			Project Beta base case NPV		1
					12
			(Appendix 2b)		
			Issue costs		1
			Annual tax shield		1
			Annual subsidy		1
			Present value of tax shield and subsidy		1
			Project Alpha adjusted present value		1
			Project Beta adjusted present value		1
					6
			(Appendix 2c)		
			Project Alpha duration		2
		(iii)	Discussion of the assumptions made		4–5
			Evaluation and justification		3–4
			(Maximum 7 marks if no considered justification given)	Max	8
			Professional marks for part (b)		
			Report format		1
			Structure and presentation of the report		3
					4
	(c)	Explanation of economic risk faced by Okan Co			2–3
		Discussion of management of economic risk			1–2
				Max	4
	(d)	Discussion of management of each of the four risk categories (Maximum 2 marks per risk category discussed. Maximum of 5 marks if not all categories discussed)		Max	6
				Total	**50**

				Marks
2	**(a)**	Interest		1
		Tax		1
		Investment in additional assets		2
		Depreciation		1
				5
	(b)	**Calculations**		
		Growth in PAT		1–2
		Dividend payout ratios		1–2
		Growth in dividends		1–2
		Residual profit		1–2
		Growth in share price		1–2
		Calculations	**Max**	6
		Discussion		
		Dividends		2–3
		Gearing		2
		Share price		2
			Max	12
	(c)	Dividend policy statement	Up to	5
		Directors' remuneration	Up to	5
			Max	8
			Total	**25**
3	**(a)**	Financial synergies		4–5
		Overestimation of synergies		2–3
		Proposed steps		1–2
			Max	8
	(b)	Kerrin PE ratio		2
		Danton valuation		2
		Post-acquisition valuation		3
		Share-for-share offer terms		2
		Advice		1
		Impact on shareholder wealth		3
				13
	(c)	Cash offer		2–3
		Share-for-share offer		2–3
			Max	4
			Total	**25**