Examiner's General Comments

The performance on this paper was a marked improvement over recent previous diets and many candidates had clearly done adequate preparation of all syllabus areas. The numerical elements of the questions were generally handled well, the main weaknesses in candidates being lack of knowledge of what the calculations might mean and an inability to apply what knowledge they do have to the question scenarios.

There were noticeable differences in averages and pass rates among centres. There are always some centre-specific observations in all diets but it was particularly marked in November. There is no obvious explanation for this other than to suggest that those centres that did particularly well have access to provision of good tuition.

Questions Four and Five were the most popular of the optional questions, although there was no question on the paper noticeably avoided by candidates. Question Four was particularly well answered, especially part (a). Many candidates had clearly revised the topic of modified internal rate of return (MIRR) and were able to provide at least a marginally satisfactory calculation. Attempts at Question Five were, on the whole, marginally satisfactory, the main weaknesses being that the majority of candidates did not address the scenario and/or writing at length on irrelevant issues. Overseas candidates continue to have difficulty with essay-type questions. Question Two was also popular but less well answered. Question Three was the least popular question on the paper but answered reasonably well by those who attempted it.

The structure and presentation of answers were also generally much improved, although some overseas centres continue to disappoint. A particular weakness that provides a great challenge to markers is those candidates who scatter answers around the answer booklet with no, or poor, indication of what part of what question is being answered. Many overseas candidates fail to tick the front page of the answer booklet with the questions they have answered, running the risk that a question is overlooked – especially if they have left many blank pages between questions.

In the sections below that explain how the marking scheme was applied, where the comment says "up to 3 marks are available for each valid point", 0.5 marks are awarded for a bullet point, 1 mark for some attempt at (correct and valid) discussion, rising to 3 marks for good discussion of the point using appropriate illustrative examples. The published solutions are used as a guide. Marks are also awarded for candidates' own valid comments that might not be in the marking guide or the published solutions.

Where marks are shown for calculations, the mark shown is the maximum available assuming calculations are all correct. Marks are available for recognition of correct approach and understanding.

Note that in the marking scheme the sum of the marks available for specific activities may total more than the marks indicated on the question paper. This is to allow some flexibility in marking but the maximum marks that can be awarded for a section of a question cannot exceed the number of marks indicated on the question paper.

SECTION A

Question One

(a)

Calculate the NPV of the cash flows for the proposed investment for **each** of the following four possible scenarios:

- Constant exchange rate and a tax rate of 10%;
- Constant exchange rate and a tax rate of 25%;
- The euro to strengthen against the US dollar by 7% a year and a tax rate of 10%;
- The euro to strengthen against the US dollar by 7% a year and a tax rate of 25%.

In each case, assume that the exchange rate at year 0 is US1.10 = 1.00.

(12 marks)

Marks available for structure and presentation in Question One.

(4 marks)

Rationale

Question One considers various issues surrounding a proposed investment in a wind farm in the US by SHINE, a multinational energy entity based in Germany. The question falls into three sections and requires an answer, in memorandum format, addressed to the Board of the SHINE group.

There are a number of internal and external constraints and uncertainties surrounding the success of the project and these are the focus of the investment appraisal exercise and ensuing discussion.

The question tests topics across the syllabus in sections A, B and D as it involves investment decisions (section D), impact of constraints on financial strategy (section A), and evaluation of alternative financing structures and the role of treasury (section B).

Suggested Approach

Prepare schedules of the project US\$ cash flows for both 10% and 25% tax rates.

The most straightforward approach is probably as follows:

- Calculate exchange rates for years 1 to 4 assuming that the euro strengthens by 7% a year against the US\$
- Convert the US\$ cash flows in euro at appropriate rates and discount the euro cash flows at 12%

Several shortcuts are possible, for example:

- applying cumulative discount rates to year 1 to 4 cash flows, or
- discounting the \$ cash flows at 12% and only then converting the cash flows into euro at the appropriate rate, or
- for the final two scenarios, use cumulative discount rates based on a combination discount factor of 20% which takes into account both the 12% discount factor and the 7% a year increase in the value of the euro

Marking Guide		Marks	
Basic cash flows Tax treatment Foreign exchange rates and currency conversio Discounting and present value calculations Total	n	3 3 4 2 12	
This section was generally answered very well.			
Common Errors			
 incorrect tax treatment of the initial value the use of an average or final exchange rates for the final two scenarios 			ve discount
Question One			
(b)			
(b) Prepare the forecast balance sheet of the SHIN under each of the two alternative financing struct scenarios A and B:			
Prepare the forecast balance sheet of the SHIN under each of the two alternative financing struct	tures and each of the <i>Exchange rates</i>	following two exchange	
Prepare the forecast balance sheet of the SHIN under each of the two alternative financing struc scenarios A and B:	tures and each of the	following two exchange	
Prepare the forecast balance sheet of the SHINI under each of the two alternative financing struct scenarios A and B: <i>Date</i> 30 November 2006 (date of the initial investment and	Exchange rates under scenario A US\$1·10 = €1·00	following two exchange Exchange rates under scenario B	
Prepare the forecast balance sheet of the SHINI under each of the two alternative financing struct scenarios A and B: <i>Date</i> 30 November 2006 (date of the initial investment and arrangement of financing) 31 December 2006	Exchange rates under scenario A US\$1·10 = €1·00 US\$1·10 = €1·00 (no change)	following two exchange Exchange rates under scenario B US\$1·10 = €1·00	

Part (b) requires an analysis of the sensitivity of the entity's results to exchange rate movements for each proposed currency of borrowing by modelling the entity's balance sheet under different exchange rate scenarios.

Suggested Approach

Prepare the simplest balance sheet first, that is, scenario A with euro denominated borrowings. Add a comment explaining that the same result is obtained under scenario A with US dollar denominated borrowings.

For scenario B and assuming that borrowings are denominated in euro:

- adjust the figures for *Assets* and *Non-current liabilities* to take into account the movement in exchange rates.
- carry forward the unchanged figure for *Current liabilities*
- calculate the balancing figure for equity

Repeat the above steps for scenario B for borrowings denominated in US dollars.

Marking Guide	Marks
Scenario A/euro borrowings	2
Scenario A/US dollar borrowings	2
Scenario B/euro borrowings	2
Scenario B/US dollar borrowing	2
Total	8

Question One

(c) (i)

Write a report addressed to the Directors of the SHINE Group in which you, as Finance Director, address the following issues relating to the evaluation and implementation of the proposed wind farm project:

(i) Discuss the internal and external constraints affecting the investment decision and advise the SHINE Group how to proceed. In your answer, include reference to your calculations in part *(a)* above.

(9 marks)

Rationale

The analysis from part (a) provides information on the financial contribution of the project which forms the basis for subsequent discussion on the impact of financial and other internal and external constraints affecting the investment decision.

Suggested Approach

Discuss the impact of each key internal and external constraint, including:

- tax rates
- exchange rates
- objections from local holiday home owners and farmers
- corporate objective to invest in renewable energy projects

Include reference to the potential losses resulting from unfavourable tax rates or exchange rates as calculated in part (a) of the question.

Ensure that all answers are relevant in the context of a large multinational group such as SHINE where the project is largely immaterial and potential losses relatively small in comparison to total group income. Project losses may be acceptable when weighed against the potentially large public relations benefits.

Advise the SHINE group how to proceed. Key recommendations include:

- wait until the final tax rate is known before proceeding further
- lobby local government to adopt a lower tax rate for renewable energy projects
- local public relations and consultation exercise
- research to minimise the impact of the wind farm on local holiday home owners and farmers
- use hedging techniques to minimise currency risk

Marking Guide	Marks
Key points include:	
External constraints Uncertainty over the tax rate Uncertainty over the exchange rate Internal constraints Need to be seen to invest in renewable energy schemes Advise how to proceed Conflict between low return renewable energy projects and positive NPV Total	9

Examiner's Comments

The report sections for requirements (c)(i) and (c)(ii) were generally quite poor. A fundamental problem was the amount of material in the answers that appeared to have been lifted straight from study systems without applying that knowledge to the scenario provided.

In addition, many candidates did not appear to realise that they were dealing with a multi-national group for which the potential losses from unfavourable tax rates or exchange rate movements were immaterial.

Common Errors specific to part (c)(i):

- Missing the key issue that the potential public relations benefits of the project might outweigh the
 potential costs.
- Omitting advice on the use of hedging techniques to reduce exchange rate risk
- Omitting advice on how to proceed

Question One

(c) (ii)

Write a report addressed to the Directors of the SHINE Group in which you, as Finance Director, address the following issues relating to the evaluation and implementation of the proposed wind farm project:

(ii) Discuss the comparative advantages of each of the two proposed alternative financing structures and advise the SHINE group which one to adopt. In your answer include reference to your results in part (*b*) above and further analysis and discussion of the impact of each proposed financial structure on the group's balance sheet.

(9 marks)

Rationale

This analysis (from (b)) forms the basis for subsequent discussion on the optimum currency in which to finance the project.

Suggested Approach

Use results from part (b) to calculate gearing and equity values under each of the four different scenarios. Analyse the results, drawing conclusions about the impact of exchange rate movements on these values for both euro denominated borrowings and US dollar denominated borrowings.

Consider whether or not the exposure of group gearing and equity values to changes in exchange rates relating to the project is material.

Explain that US dollar borrowings would provide a natural hedge of both US dollar cash flow and balance sheet exposures.

Marking Guide

Marks

Numerical points: Gearing calculations Changes in value of equity Key points in discussion: US dollar borrowings provide a natural hedge of the US dollar investment Impact on gearing is negligible as the project is so small relative to the size of the entity Conclusion

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Total

Examiner's Comments

See part (c)(i) above.

Common Errors specific to (c)(ii)

- lack of understanding that the impact of exchange rate movements relating to the project is largely
 immaterial to group gearing levels due to the small size of the project in relation to the size of the
 group
- misconception that US dollars would need to be borrowed in the US
- misconception that it would be cheaper and/or easier to raise funds in euro rather than US dollars

Question One

(c) (iii)

Write a report addressed to the Directors of the SHINE Group in which you, as Finance Director, address the following issues relating to the evaluation and implementation of the proposed wind farm project:

(iii) Discuss the differing roles and responsibilities of the treasury department and finance department in evaluating and implementing the US project and the interaction of the two departments throughout the process.

(8 marks)

Rationale

Part (c) (iii) considers some broader organisational issues relating to the evaluation and implementation of the wind farm project. The emphasis here is on the differing roles and responsibilities of the treasury and finance departments and their interaction throughout the evaluation and implementation process.

Suggested Approach

Discuss the individual roles and responsibilities of both treasury and finance at each stage of the evaluation and implementation process for the project.

Discuss the interaction of treasury and finance that is required in order to fulfil their individual roles and responsibilities effectively.

Marking Guide

Key points include:

Evaluating the project Treasury dept: quantify/hedging risks Finance: assess costs and revenues Choice of finance Treasury dept: key role here Arranging finance Treasury dept: key role here Implementing the project itself Finance dept: set and control against budget Interaction between the departments Total

8

Marks

Examiner's Comments

This section was generally well answered and candidates appeared to be well prepared.

Common Errors

- Presentation of all functions of each department, whether or not they were relevant to the evaluation and implementation of the US project.
- Omitting to discuss the interaction of finance and treasury
- Digressing onto a discussion of the issue of centralisation versus decentralisation of the treasury function

SECTION B

Question Two

(a)

Calculate a range of values for AB, in total and per share, using methods of valuation that you consider appropriate. Where relevant, include an estimate of value for intellectual capital.

(12 marks)

Rationale

Question Two concerns a telecommunications consultancy based in Europe, but which trades globally. It is privately owned by the founding shareholders, who are also directors and who are now considering a flotation. The financial advisor has been asked to provide a range of possible values for the entity using suitable methods of valuation. The question tests topics in section C of the syllabus – *business valuations and acquisitions*.

Suggested Approach

Identify the four main methods of valuation. These are:

- 1. Asset value including intellectual capital value
- 2. Market capitalisation using industry average P/E
- 3. Dividend valuation model/earnings valuation model
- 4. NPV using free cash flow.

- -	
Marking Guide	Marks
Asset value – NET tangible assets Asset values – additional marks for attempt at intellectual capital value Market capitalisation using industry average P/E DVM – comment NPV	1 ¹ / ₂ Up to 3 1 ¹ / ₂ 1
Cash flow (that is using after tax profit and excluding depreciation) DCF 2007 and 2008 DCF 2009+ NPV Total	2 1 1 ¹ / ₂ 1/ ₂ 12

Examiner's Comments

On average, this question was answered less well than the other optional questions. Many candidates provided too few types of valuation and/or did not calculate per share figures. Very few candidates made a serious attempt at calculating value of intellectual capital although credit was given for any valid effort.

Common Errors

- Using total, and not net, assets, or average assets over 3 years.
- No, or very limited, attempt at providing a value for intellectual capital.
- Using the dividend valuation model without noting that there was insufficient information unless earnings were used as a proxy.
- No attempt at providing DCF/NPV calculations based on free cash flow, or confusing the various cash flow-based methods.
- No per share calculations.

Question Two

(b)

Discuss the methods of valuation you have used, explaining the relevance of each method to an entity such as AB. Conclude with a recommendation of an approximate flotation value for AB, in total and per share.

(13 marks)

Rationale

The (financial) advisor has been asked to explain the methods of valuation to the directors and to make a recommendation of a course of action, including a possible flotation value.

Suggested Approach

- Provide a summary table of the values arrived at by each of the methods used.
- Discuss the various methods of valuation, identifying the key features and their appropriateness to the scenario.
- Provide a recommendation
- Note the limitations of the methods that have been used.

Marking Guide

Up to 3 marks per valid comment. Total

Examiner's Comments

The level of discussion in this part of the question was weak, which is surprising given that company valuation features regularly on the paper.

Common Errors

- General weakness of discussion, especially of the use of the industry price earnings ratio.
- Explaining methods with little discussion of their drawbacks
- No, or poorly reasoned, recommendation of a flotation value.

Marks

Question Three

(a) (i)

Assume you work for VCI and have been asked to evaluate the potential investment.

(i) Using YZ's forecast of growth and its estimates of cost of capital, calculate the number of new shares that YZ will have to issue to VCI in return for its investment and the percentage of the entity VCI will then own. Comment briefly on your result.

(9 marks)

Rationale

Question Three involves a venture capital entity that specialises in providing finance to small, but established, businesses. The entity is examining a potential equity investment in a medium-sized family owned transport and distribution business that is looking for additional capital to expand its operations.

Part (a) (i) requires calculation of the number of shares the transport and distribution entity would need to issue to the venture capital entity to raise the necessary finance and what price these shares need to achieve to satisfy the venture capitalist's return requirement. The question tests topics in section C of the syllabus – *business valuations and acquisitions*.

Suggested Approach

- Calculate dividends
- Calculate value using the dividend valuation model at both 10% and 15% cost of equity capital
- Calculate value per share at each value
- Calculate number of shares to be issued
- Calculate percentage that will be owned by the venture capitalist organisation
- Provide a brief comment

Marking Guide	Marks
Calculation of dividends/retained earnings	2
Valuation using DVM (at 10% and 15%)	2
Value per share Shares to be issued	1 2
Percentage owned by VCI	1
Comment	1
Total	9

Examiner's Comments

This was the least popular question on the paper but answered fairly well by those who attempted it. The main failing was in calculating dividends although on the "own answer" principle many candidates then scored good marks.

Common Errors

- Calculating incorrect dividend figure (usually by ignoring interest costs before arriving at earnings)
- Calculating values and subsequent figures using only one growth rate

Question Three

(a) (ii)

Assume you work for VCI and have been asked to evaluate the potential investment.

- (ii) Evaluate exit strategies that might be available to VCI in five years' time and their likely acceptability to YZ.
 - (6 marks)

Rationale

Part (a) (ii) requires a discussion of the possible exit strategies available to the venture capital entity and their likely acceptability to the transport and distribution entity is also required.

Suggested Approach

Discuss the main exit strategies available, their advantages and disadvantages/likely achievement of return:

MBO by YZ Flotation Third party sale

Marking Guide

Marks

6

Up to 3 marks per valid comment Total

Examiner's Comments

This part of the question was generally well answered and most candidates managed to provide at least satisfactory discussion, with many very good answers being submitted. There were no specific common errors.

Question Three

(b)

Discuss the advantages and disadvantages to an established business such as YZ of using a venture capital entity to provide finance for expansion as compared with long term debt. Advise YZ about which type of finance it should choose, based on the information available so far.

(10 marks)

Rationale

Part (b) requires a discussion of the advantages and disadvantages to an established business such as the one in the scenario of using a venture capital entity compared with raising the necessary finance through long term debt.

Suggested Approach

Discuss the main advantages and disadvantages of venture capital finance compared with long term debt in the circumstances of YZ and provide advice. Key points are:

Advantages

Money readily available May bring useful management expertise Lowers gearing

Disadvantages

May want more control than management wish to give and/or a seat on the board May push for higher risk strategies than YZ comfortable with to allow for their required rate of return and/or early flotation May eventually sell shares to an unwanted (to YZ) buyer No tax advantages Difficulty of valuing shares – part sale

Advice

Neither option ideal in current situation Need to clean up finances first

Marking Guide

Up to 3 marks per valid comment Total

Examiner's Comments

This part of the question was less well answered than part (a) with many candidates not addressing the scenario or the question as asked.

Common Errors

- Discussing debt versus equity in general terms
- Providing no advice
- Not recognising the specific circumstances of YZ (high gearing, poor liquidity)

Marks

Question Four

(i)

Assume that you are the Financial Manager of CD.

(i) Calculate the net present value (NPV), internal rate of return (IRR) and (approximate) modified internal rate of return (MIRR) of alternative 2.

(12 marks)

Rationale

Question Four concerns a manufacturing entity based in the UK. Consumer tastes and demands are changing and the entity needs to reconsider its products and how they are manufactured and sourced. The question requires an evaluation of two alternative approaches to the continuation of how it supplies its main retailing customers with some of its products. As part of this evaluation, calculations are required of NPV, IRR and MIRR. The question tests topics in Section D of the syllabus – *investment decisions and project control.*

Suggested Approach

- Calculate forward rates
- Inflate cash flows
- Convert cash flows to sterling
- Calculate DCFs/NPV
- Calculate internal rate of return
- Calculate modified internal rate of return

Marking Guide	Marks
	2
Calculating forward rates Inflating cash flows	2 2
Ignoring sunk cost	- 1
Converted to sterling	1
DCFs/NPV IRR (using interpolation)	1
MIRR	2 <u>3</u>
Total	12

Examiner's Comments

This was a popular question and very well answered by many candidates who attempted it. It was a fairly standard approach to investment decisions and the well prepared candidate should have been able to gain good marks.

Common Errors

- Not inflating US and/or sterling cash flows
- No, or incorrect, attempt at calculating modified internal rate of return
- Using a financial calculator to calculate IRR (and sometimes NPV) and not showing any workings. Very little credit could be awarded for this – marks are awarded for approach as well as correct answers.

Question Four	
(ii)	
(ii) Briefly discuss the appropriateness and possible advantages of providing MIRRs for the of of the two alternatives.	evaluation
	(4 marks)
Rationale	
See question part (i)	
Suggested Approach	
Provide brief comments on the appropriateness and advantages of MIRR in the situation here.	
Marking Guide	Marks
Comments – up to	4
Examiner's Comments	
This part of the question was very poorly answered; even candidates who had managed to calc MIRR correctly were generally unable to explain what the calculations meant.	ulate

Que	stion Four	
(iii)		
(iii)	Evaluate the two alternatives and recommend which alternative the entity should choose your answer some discussion about what other criteria could or should be considered be decision is taken.	fore a final
		(9 marks)
Rati	onale	
A ree	commendation is required, with reasons, of which alternative the entity should choose.	
Disc	 gested Approach uss the key points, such as: NPV is theoretically superior to other methods IRR weaknesses More evaluation needed Cash flows beyond year 3 needed Weaknesses of interest rate parity for forecasting forward rates Other stakeholders' interests Payback could be calculated Recommendation 	
Marl	king Scheme	Marks
Up to Tota	o 3 marks per valid comment I	9
Exai	miner's Comments	
	part of the question was satisfactorily answered by many candidates who attempted it. The	

This part of the question was satisfactorily answered by many candidates who attempted it. The main faults were discussion of irrelevant issues (to the scenario) and/or a too lengthy discussion of too many "other criteria".

Question Five

(a)

Discuss the criteria that the two very different entities described above have to consider when setting objectives, recognising the needs of each of their main stakeholder groups. Make some reference in your answer to the consequences of each of them failing to meet its declared objectives.

(13 marks)

Rationale

Part (a) examines the objectives of a local government entity and a large, listed entity. The requirement is a discussion of the main criteria that these two very different entities need to consider when setting objectives. The question tests topics in section A of the syllabus – *formulation of financial strategy*.

Suggested Approach

Discuss the key points, such as:

- Who are main stakeholders
- Differences and similarities between stakeholder groups
- Where is finance coming from and in what proportions
- Do objectives need to be measurable
- Will information be publicly available

Marking guide

Up to 3 marks per valid comment Total

Examiner's Comments

Many candidates provided an adequate answer to this part of the question, but there were not many strong answers and few candidates achieved high marks.

Some overseas candidates politicised the question more than necessary, especially the consequences of failure, although credit was given where appropriate.

Other common errors

- Poor understanding of objective setting
- Not discussing consequences of failure for either entity
- Not fully understanding the nature of CCC as an entity
- Re-writing large chunks of the question not an error but wastes time.
- Reiterating with no application the text book/study manual

Marks

Question Five

(b)

Discuss and compare the relationship between dividend policy, investment policy and financing policy in the context of the small entity described above, MS, and DDD, the large listed entity described in part (a).

(12 marks)

Rationale

Part (b) compares the large, listed entity described in part (a) and a small private entity. The requirement is to discuss the relationship between dividend policy, investment policy and financing policy in the context of the two entities. The question tests topics in section A of the syllabus – *formulation of financial strategy*.

Suggested Approach

Discuss the key points, such as:

- Dividend policy part of financing decision
- Theoretical position of the relationship
- Access to funds for investment
- Dividend payout policy of MS
- Signalling mechanism relevance to the two entities

Marking guide

Up to 3 marks per valid comment Total

Examiner's Comments

This part of the question was generally answered less well than part (a). The main weakness was in discussing general issues of investment, finance and dividend policies with no or little focus on the entities involved.

Other Common Errors

• Discussing CCC instead of MS.

Marks