Paper P9 – Management Accounting Financial Strategy
Post Exam Guide
November 2007 Exam

Examiner's General Comments

The improvement in candidates' performance seen in November 2006 and May 2007 was, regrettably, not continued in November 2007. The underlying reason for this may, in part, be due to an apparent preference amongst candidates for investment appraisal questions rather than merger and acquisition questions. In past examinations, entity valuation questions have not generally been answered well and Question One in this paper was no exception. Many candidates were unable to attempt many, if any, sensible calculations of valuation of entities or intangible assets.

There continued to be marked differences in performance between and within centres, possibly greater differences than seen in the past. As noted in previous Post Exam Guides, the reason for this is possibly the quality of tuition received by candidates and the associated level of preparedness. However, the performance of candidates in many overseas centres appeared to improve slightly, and Question Five was particularly well attempted by candidates in some overseas centres. The standard of presentation of numerical answers continues to disappoint in all centres. Candidates are again most strongly advised to look at past exam papers and suggested solutions and practice using the structure and presentation of answers shown.

No one optional question appeared to be notably the most popular although Questions Four and Five were chosen slightly more frequently than Questions Two and Three. Question Three was particularly poorly attempted and had a lower average mark than the other optional questions.

In the sections below that explain how the Marking Guide 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 should be 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 Guide 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 a range of values at 31 December 2007 for:
• the intangible assets of ITPT; and
• the total value of ITPT;
and briefly interpret the significance of each result.

(15 marks)

Rationale

Concerns the proposed acquisition of a courier entity by an international business in the same industry. Due to the nature of the courier business, the prospective acquisition entity has a significant value of intangible assets and the question begins in part (a) by asking for a range of possible values for those intangible assets. Candidates are then required to value the whole entity using a variety of approaches, adding brief comments to interpret the significance of the results obtained.

Suggested Approach

(i) Valuation of intangible assets
- Calculate a valuation based on the difference between the book value of the net assets on the balance sheet and the market capitalisation calculated from the share price
- Repeat the above calculation using replacement values rather than book values for property, plant and equipment
- Use a Calculated Intangible Value (CIV) approach, capitalising the excess of ITPT's earnings over and above the industry average
- Apply the PT group's ratio of intangibles to tangible assets to ITPT's tangible assets
- Compile a summary of the results; state the range and comment on the significance of each result

(ii) Valuation of the total entity
- Calculate the market capitalisation based on the current share price
- Calculate net assets based both on book values and replacement values and add one or more valuations obtained for intangible assets
- Calculate the NPV of future earnings cash flows using a 2-stage approach. Firstly use the discrete year-by-year method for the first 3 years. Then use the DVM formula for years 4 onwards and aggregate the two results.
- Compile a summary of the results; state the range and comment on the significance of each result

Marking Guide	**Marks**
<u>Valuation of intangible assets</u>	
Any valid valuation method	2 each
Comments	1 each
Range/summary	0.5
<u>Valuation of entire entity</u>	
NPV of earnings (2-stage approach)	3
Any other valid valuation method	2 each
Comments	1 each
Range/summary	0.5
	Max 15 marks

Examiner's Comments on Question One (a)

As already observed, the general performance of candidates in valuing the intangible assets and the entire entity of ITPT was very poor despite the fact that these basic valuation techniques are examined in almost every diet. Many candidates made no attempt at all at valuing the intangible assets and some justified this by stating that there were no intangible assets shown in ITPT's balance sheet. Of even more concern was that only a small minority of candidates were even able to calculate a valid net asset value for ITPT.

Common errors

- failing to deduct either or both long term borrowing and current liabilities from the assets shown in the balance sheet when calculating a net asset value for ITPT
- using a P/E approach to calculating market capitalisation without realising that this was simply equivalent to the share price x number of shares in issue since the P/E ratio was derived from the same price and earnings data
- failing to realise that ITPT is a quoted entity and so the share price can be used to calculated a "floor" for the bid offer
- ignoring the CIV method or taking average annual excess earnings as the value of intangibles without capitalising this value
- applying a single growth rate of either 5% or 12% in perpetuity rather than adopting the 2-stage approach with the 12% growth rate in the first 3 years and the 5% growth rate thereafter
- generalised comments on the valuation methods themselves rather than the significance of the results to the PT group

Question One

(b)

A report is required in part (b), covering a wide range of issues that might influence the decision on whether or not to go ahead with the proposed acquisition.

- Part (b)(i) asks for advice on a suitable bid level and a discussion of the validity of the various different valuation results obtained in part (a).
- Part (b)(ii) examines the impact of the acquisition on the financial performance of the acquiring entity with reference to three specific financial objectives and targets relating to earnings growth, EPS and gearing level.
- Part (b)(iii) concerns how best to structure and finance the bid offer.
- Part (b)(iv) concludes with a review of the broader strategic implications of, and a recommendation on whether or not to go ahead with, the proposed acquisition.

Rationale

Concerns the broader issues surrounding the proposed acquisition, incorporating learning outcomes and topics from sections A and B of the syllabus.

Key issues include a suitable level of bid offer, the evaluation of the likely impact on the attainment of the financial objectives of the PT group and also how best to structure and finance the bid offer.

Suggested Approach

Part (i)

- Explain that the base line for assessing an appropriate bid offer is the market capitalisation of ITPT based on its current share price
- Calculate the extent of the premium being offered on top of the current share price and consider whether this is likely to be:
  - sufficient to make the bid attractive to the shareholders of ITPT
  - recouped by the shareholders of the PT group as a result of the expected synergistic benefits (capitalised)
- Discuss other relevant issues such as:
  - the impact of any possible competing bids
  - the attractiveness to the shareholders of ITPT of acquiring shares in the PT group (with reference to the lower growth forecast and current P/E ratio of the PT group)

Part (ii)

For the cash offer:

- Aggregate and adjust the combined forecast earnings figures for the PT group and ITPT by adding in the expected annual synergistic benefits and deducting an estimated additional finance charge
- Use the above figures to calculate:
  - average compound growth in earnings
  - EpS in 2009
- Compute the old and new gearing ratios (using market values throughout)
- Compare each result to the stated financial objectives (both pre- and post-acquisition)

For the share-for-share offer repeat the above, adjusting the calculations as follows:

- Add back the additional finance charge previously deducted from combined earnings
- In the EpS calculation, increase the number of shares by the number of new shares to be issued to the shareholders of ITPT as a result of the share-for-share offer

Part (iii)

Discuss the pros and cons of the cash offer versus the share-for-share offer, including:

- reference to the results in part (ii) above, noting that neither finance structure enables all financial objectives to be met
- explaining that only a small proportion of the required cash offer can be funded from the cash on the balance sheet
- discussing the potential problems with each of the three alternative methods of financing the remainder of the cash offer (reductions in dividends, new borrowings, rights issue)
- concluding with a recommendation

Part (iv)

Discuss the broader strategic implications of the proposed acquisition, looking at the "whole picture", including:

- whether this strategy would assist or distract the group from its strategic objective of expanding into the high growth geographical areas such as China
- to what extent the current market advantages of ITPT (such as excellent reputation and state of the art IT systems) might be sustainable under the new group structure and they could be easily adopted by the rest of the group
- a concluding recommendation, bringing together all the key issues and recommending whether or not proceed

Marking Guide	**Marks**
Part (i)	
Up to 3 marks for discussion of each key point up to maximum available marks	
Key points:	
• comparison of proposed bid price to values calculated in part (a) above	
• market premium above current share price	
• impact of bargaining position	Max 4
Part (ii)	
Calculations:	
• Adjusted combined earnings	4
• Earnings growth	3
• EpS	3
• Gearing	3
Assessment/conclusions	4
	Max 12
Part (iii)	
Up to 3 marks for discussion of each key point up to maximum available marks	

Key points:

- Unable to meet all three financial objectives
- Pros and cons of the cash offer
- Pros and cons of the share-for-share offer
- Choice of financing structures for the cash offer and pros and cons of each
- Advice/recommendation

Max 8

Part (iv)
Up to 3 marks for discussion of each key point up to maximum available marks
Key points:

- Why expand in Europe rather than in China?
- Can synergistic benefits be realised?
- Can the PT group maintain and take advantage of ITPT's high service quality and up-to-date IT systems?
- Overall conclusion on whether or not to proceed with the acquisition

Max 7

Up to 4 marks available for presentation

Examiner's Comments on Question One (b)

Many answers were unconvincing and failed to grasp the key issues arising from the evaluation of the proposed acquisition. Book knowledge is not sufficient at strategic level, candidates are expected to apply their book knowledge to the given scenario. For example, a general discussion on the difficulty of realising synergistic benefits without reference to the scenario earned few marks in part (iv) – candidates were expected to examine the specific issues and potential problems in adopting or even maintaining the competitive advantages that ITPT would bring in terms of superior service quality and IT systems.

Common errors:
Part (i)

- Failing to recognise that the current share price is the lowest bid offer that the shareholders of ITPT would consider
- Omitting to consider the proposed bid offer from the viewpoint of both PT group and ITPT shareholders

Part (ii)

- Omitting to adjust combined earning figures for synergistic benefits and/or additional finance charge (where appropriate)
- Error in adjusting the number of shares in issue in the EpS calculation for the share-for-share offer (for example, incorrectly basing the adjustment on a one-for-one share-for-share offer or on the ITPT share price)
- Calculating the gearing based on book values rather than market values or a combination of both book and market values
- In the gearing calculation, omitting to include ITPT's borrowings and/or the new borrowings required to finance the cash offer

Part (iii)

- Advising that a reduction in dividends would be a convenient method of financing the bid
- Proposing the use of reserves (retained earnings) rather than cash to finance a cash offer
- Omitting any reference to the results in part (ii) above
- Omitting concluding advice on how best to structure and finance the bid offer

Part (iv)

- Failing to stand back and see the "whole picture" and a general lack of application of comments to the specific circumstances of this scenario
- Omitting to discuss the potential problems of taking advantage of ITPT's superior service quality and IT systems
- No concluding recommendation

SECTION B

Question Two

(a)

Discuss the appropriateness of the two Directors' suggestions about the discount rate when evaluating the proposed investment and recommend an appropriate rate to use. You should support your discussion and recommendation with calculations of two separate discount rates – one for each Director's suggestion. Show all your workings.

Rationale

Concerns a listed, UK-based entity with diverse international interests. It is evaluating an investment into a new area of business. The entity proposes to finance the investment with a combination of debt and equity. The investment appraisal that has been conducted has revealed a marginally positive NPV, but there is disagreement among the directors as to how the project has been evaluated, with particular disagreement about the discount rate used. Part (a) requires discussion and calculations of two different methods of calculating an appropriate discount rate. The question tests topics in Section B of the syllabus.

Suggested Approach

<u>DIRECTOR A</u>
Calculate current WACC, first calculating ke, kd and ratio of D:E. (Note – post-issue WACC calculations were acceptable).

<u>DIRECTOR B</u>
Calculate:

- D:E ratio for XYZ
- Ungear XYZ
- Regear for ABC (or use adjusted cost of capital formula)
- Calculate ke and WACC
- Comment on systematic risk, capital structure etc

Make a recommendation

Marking Guide	**Marks**
Current (or post-issue) WACC	5
Comments on Director A's suggestion	2
Calculate WACC using proxy entity data	8
Comments on Director B's suggestion	2
Recommendation	2
	Max 18 marks

Examiner's Comments on Question Two (a)

This question was, on the whole, answered satisfactorily. The main weaknesses were in the calculations of WACC using Director B's suggestion.

Common Errors

- Not ungearing XYZ and/or then not re-gearing for ABC
- Inability to calculate WACC using market values
- Generally poor calculations
- Providing no comments or recommendation

Question Two

(b)

Discuss how ABC's market capitalisation might change during the week the proposed investment becomes public knowledge. **No** calculations are required for this part of the question.

(7 marks)

A report format is **not** required for this question.

Rationale

Part (b) requires discussion of how the entity's market capitalisation might change when the proposed investment becomes public knowledge. The question tests topics in Section B of the syllabus.

Suggested Approach

Recognise the implications of the EMH.
Comment on specific circumstances of this scenario (market perceptions of investment, other factors etc)

Marking Guide	**Marks**
Up to 3 points for discussion of key points. Key points: ▪ Three forms of EMH ▪ Market perception of investment ▪ Market's calculations ▪ Dynamic market – other internal-external factors might be involved.	max 7 marks Note: Max marks available if EMH <u>not</u> mentioned were 5

Examiner's Comments

No further comment

Common Errors

- Not mentioning EMH
- Discussing <u>only</u> EMH

Question Three

(a)

(i) Calculate the profitability index and equivalent annual annuities for all three projects; explain the usefulness of these methods of evaluation in the circumstances here; and recommend which project(s) should be undertaken.

(10 marks)

(ii) Explain the differences between "hard" and "soft" capital rationing and which type is evident in the scenario here. Discuss, briefly, the advisability of the directors of HIJ limiting their capital expenditure in this way.

(5 marks)

(iii) You later discover that the discount rate used was nominal, but the cash flows have been calculated in real terms. Explain, briefly, how the calculation for NPV should be adjusted and what effect the changes might have and on your recommendation. You are **not** required to do any calculations for this section of the question.

(4 marks)
(Total for part (a) = 19 marks)

Rationale

Concerns a private entity that is reviewing three possible investment opportunities. All three have positive NPVs but the entity has a self-imposed investment limit that means it may not be able to invest in all three. Part (a) requires calculation of profitability indexes, equivalent annual annuities of all the investments together with an explanation of the usefulness of these methods of evaluation and a recommendation. The question tests topics in Sections A and D of the syllabus.

Suggested Approach

Section (i)
- Calculate PIs and EAAs for all three projects
- Comment on suitability of using PI/EAA in circumstances here
- Make a recommendation based on rankings of project combinations

Section (ii)
- Explain hard and soft capital rationing
- Explain which type is in evidence here
- Provide relevant additional comments

Section (iii)
- Note formula for adjusting discount rate (optional)
- Explain adjustment and effect on NPV
- Explain impact, if any, on rankings

Marking Guide	Marks	
Section (i)		
Calculations of PIs, EAAs	3 }	
Comments	4 }	10
Combination and rankings	2 }	
Recommendation	1 }	
Section (ii)		
Comments on hard and soft capital rationing and type in evidence here	3 }	5
Other comments	2 }	

Marking Guide for Question Three (a) continued	**Marks**
<u>Section (iii)</u> Formula and comments	4

Examiner's Comments

This question was generally very poorly answered. Many candidates could not calculate EAAs or, in some cases, PI. Few recognised the need to combine the projects to determine rankings and many did not understand the meaning of hard and soft capital rationing.

Common Errors

- Saying EAA can't be calculated for project C
- Incorrect calculations for all projects' EAA
- Suggesting capital rationing means projects are not divisible
- Not combining projects, often with the comment they cannot be combined because they are 'not divisible'.
- Discussing NPV instead of the appropriateness of PI/EAA.

Question Three

(b)

Assume that Project B, and B only, could attract Government support as follows:

• A non-repayable grant of $3·5 million payable as soon as the project commenced; plus
• Subsidised bank lending of 50% of the initial investment (after the government grant), secured on the non-current assets that would be acquired for this project.

The capital amount of the debt would be repayable in eight years' time. Interest (before tax) is at the rate of 8% per annum and will be paid in equal instalments annually at the end of each year. Discuss, with supporting calculations, whether this new information would change your recommendation using an APV approach incorporating the NPV in the scenario as the "base case".

(Total for part (b) = 6 marks)

A report format is **not** required for this question.

Suggested Approach

- Calculate APV using base case NPV + grant and interest rate benefit
- Revise rankings
- Make a recommendation and comment

Marking Guide	**Marks**
▪ Calculation of APV	3
▪ Revised rankings and recommendations	3

Examiner's Comments

Very poorly answered and in many cases not even attempted

Common Errors

- No attempt at any calculations
- No understanding of APV

Question Four

(a)

(i) Calculate the sterling NPV of the project both with, and without, adjusting for certainty equivalents.

(12 marks)

(ii) Discuss briefly other internal factors the entity should consider before deciding whether the project should proceed. You are NOT required to discuss external economic factors or hedging techniques. Include comments on the use of certainty equivalents and why the Finance Manager's "rough calculations" might have been wrong.

(6 marks)

Calculations count for up to 12 marks

Rationale

Concerns a specialist UK-based manufacturing entity that is considering establishing a manufacturing plant in Asia. The investment requires capital expenditure in both the UK and the Asian country although all operating costs will arise in Asia. Part (a) requires calculations of sterling NPVs, adjusted using certainty equivalents, and discussion of internal factors that should be taken into account before a decision is made.

Suggested Approach

Part (i)
- Calculate forward rates
- Calculate NPV using Risk Adjusted Discount Rate and Certainty Equivalents

Part (ii)
- Comment on other factors

Marking Guide	**Marks**
Part (i)	
▪ Calculations/recognition of correct cash flows	6
▪ Calculation of NPV using RADR	2.5
▪ Calculation of NPV using CEs	3.5
Part (ii)	
Discussion of key points - up to max	6

Key points:
- Appropriateness of discount rate
- Limitations of CE approach
- Opportunity cost of managers' time
- Other potential costs
- Use/usefulness of sensitivity analysis

Examiner's Comments

This was a very popular optional question and on the whole answered at least satisfactorily.

Common Errors
- Adding UK sterling costs to A$ costs
- Using 10% as a discount rate in the CE calculations instead of the risk free rate of 3%
- Including management costs and/or cost of feasibility study in the cash flows
- Discussing only financing as an 'other factor'
- Discussing method of valuation weaknesses rather than other factors

Question Four

(b)

Advise the Directors of UVW whether or not the management of working capital should be carried out in the Asian country compared with maintaining a centralised function in the UK.

(7 marks)

A report format is **not** required for this question.

Rationale

Part (b) requires advice on whether the management of working capital for the Asian project should be carried out in Asia or maintained as a centralised function in the UK. The question tests topics in Sections A and D of the syllabus.

Suggested Approach

- Discuss the key factors in the management of working capital in the situation here.
- Advise the management of UVW on the most suitable approach.

Marking Guide	**Marks**
Up to 3 marks per key point	
Key points to consider:	
▪ Availability of staff	} Max 5
▪ Need for local inventory control	}
▪ Management of Forex risk	}
▪ Management of cash	}
Advice/recommendation	2

Examiner's Comments

No specific comments.

Common Errors

- Discussing aggressive vs conservative methods of financing WC. Some credit was available for this point but it was not the main focus of the question.
- Not recognising that different components of WC could be managed differently.

Question Five

(a)

Discuss the advantages, disadvantages and challenges of pursuing an IPO in DEF's circumstances at the present time. Conclude with a recommendation. Calculations are not the main purpose of this question, but credit is available for calculating some simple figures to support your discussion.

(9 marks)

Rationale

Concerns a private telecommunications entity that provides services to telecommunication operators in Europe and parts of Asia. It is now considering a public listing of its shares. Part (a) requires discussion of the advantages, disadvantages and challenges of pursuing an IPO at the present time. The question tests topics in Sections B and D of the syllabus.

Suggested Approach

- Provide brief calculations and preliminary comments
- Discuss the advantages, disadvantages and challenges
- Make a recommendation
- Ensure answer relates to DEF

Marking guide	**Marks**
Calculations/preliminary comments	2 } Max 9
Advantages, disadvantages, challenges – up to	9 } overall
Recommendations	2 }

Examiner's Comments

Question Five was a popular choice of optional question and generally answered satisfactorily. Some overseas centres provided very good answers here.

Common Errors
- Not discussing challenges
- Not making a recommendation
- Not relating the answer to DEF

Question Five

(b)

Advise on the roles that would be played by the following organisations in DEF's IPO:
• Investment bank;
• Stockbroker;
• Potential institutional investors in the issue;
• DEF's Treasury Department.

(9 marks)

Rationale

Part (b) requires advice on the roles of various financial institutions and advisors. The question tests topics in Sections B and D of the syllabus.

Suggested Approach

Advise on the roles of each of the organisations in turn, relating discussion to DEF.

Marking guide	**Marks**	
Comments on:		
▪ Investment bank	3 }	
▪ Stockbrokers	2 }	9
▪ Institutional investors	2 }	
▪ Treasury Dept.	2 }	

Examiner's Comments

No further comments

Common Errors
No specific common errors

Question Five

(c)

The following methods of issuing shares are being suggested:

• Private placing;
• Public offer for sale by either fixed price or tender.
Discuss the features, advantages and disadvantages of these methods and conclude with a recommendation of the preferred method of issue for DEF.

(7 marks)

Rationale

Requires discussion of two methods of flotation and a recommendation. The question tests topics in Sections B and D of the syllabus.

Suggested Approach

- Discuss the features, advantages and disadvantages of the two methods
- Make a recommendation

Marking guide	**Marks**	
▪ Private placing	3 }	Max
▪ Offer for sale (fixed price and/or tender)	6 }	7 marks
▪ Recommendation	2 }	overall

Examiner's Comments

No further comments

Common Errors
- Not making a recommendation
- Assuming a private placing is done by the entity (DEF) and/or to a single investor.