



**LEADING TREASURY
PROFESSIONALS**

MCT ADVANCED DIPLOMA GENERAL EXAMINATION Paper, solutions and Examiners' Report

Monday 9 October 2017 09.30 – 13.00

Instructions:

Answer **SEVEN COMPULSORY** questions.

Time allowed: **3 hours + 30 minutes reading time.**

During the reading time you may annotate the examination paper but you may not write in your answer booklet or use your calculator.

- Enter your student number on the answer booklet: **do NOT write your name**
- You must write in blue or black ink and ensure your handwriting is legible.
- Enter the order in which questions are answered in the box provided on the front of the answer booklet.
- Ensure that all additional submissions (if applicable) are attached to the answer booklet by the tag provided and write your student number on all items to be marked.
- Show all your workings and state your assumptions in all questions, as appropriate.

QUESTION 1

You will need to make several additional assumptions in answering the various parts of this question.

You are Treasurer at a conglomerate, Electrical Components plc, which is planning to sell its Dutch electrical components subsidiary, Elecco Bv, to a private equity group. In anticipation of negotiations with the Private Equity company you have decided to do some preliminary work on the valuation and the likely leveraged financing structure. The components sub-sector has average equity risk ratings and currently is valued at average-to-high multiples. A summary of the 2017 financials and the projections out to 2023 is given in Table 1. EURIBOR is expected to be at 2.0% for the foreseeable future.

As required, assume:

- that the tax rate for both the P&L and Cash Flow is 20%
- that the private equity group aims to dispose of the business at the end of 5 years, via either a trade sale or a flotation
- that senior debt would be structured in several tranches with terms of 5 to 8 years and with differing interest rates
- all debt interest would be 100% cash paid (except as instructed in relation to question 1e)
- that only Tranche A, of EUR 500 million, would be fully repayable over the first five years
- appropriate credit spreads over EURIBOR for all the various tranches of debt

Table 1

Elecco Bv.	<u>Income Statement</u>							
	EUR millions	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22	Sep-23
Total Revenues	1,200	1,320	1,426	1,511	1,587	1,634	1,667	
	<i>growth rate</i>		10.0%	8.0%	6.0%	5.0%	3.0%	2.0%
EBITDA	384	427	464	495	525	541	551	
	<i>EBITDA margin</i>	32.0%	32.4%	32.5%	32.7%	33.1%	33.1%	33.1%
Depreciation	(31)	(33)	(41)	(40)	(51)	(52)	(53)	
EBIT	353	394	423	455	473	489	498	
	<i>EBIT margin - %</i>	29.5%	29.8%	29.7%	30.1%	29.8%	29.9%	29.9%
	<i>EBIT growth rate</i>		11.4%	7.5%	7.4%	4.1%	3.3%	2.0%
	<u>Cash Flow Statement</u>							
		Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22	Sep-23
EBITDA			427	464	495	525	541	551
Working capital change			(25)	(17)	(7)	(15)	(7)	(10)
Total capex.			(50)	(46)	(49)	(56)	(59)	(63)
Cash from operations			353	401	438	454	475	478
	<i>Capex / depreciation</i>		1.50	1.13	1.23	1.09	1.14	1.19
	<i>NWA% Sales</i>	24.0%	23.7%	23.1%	22.3%	22.2%	22.0%	22.2%

For this question, we have provided you with a separate worksheet for any profit and cash flow calculations. If you do use it, please remember to fill in your student number on this worksheet and hand the worksheet in with your answer book.

Required:

In all answers please explain all your assumptions.

Q1.a Estimate a likely range of values for the total business (Enterprise Value) using both P/E and EBITDA valuation multiples appropriate to the forecast growth rate. Highlight your best estimated value within that range.

(6 marks)

Q1.b Based on the projections, and using appropriate debt and interest multiples, estimate the maximum amount of senior debt that could be supported by the P&L in year 1 and demonstrate that the senior debt can be serviced with adequate after-tax cash-flow cover for both interest and repayment.

(6 marks)

Q1.c Estimate how much non-amortising mezzanine debt, at an appropriate interest rate, could be supported by the residual cash flow in year 1.

(4 marks)

Q1.d Calculate how much equity is required to complete the sale, given your original valuation and your estimated debt totals, and comment on the resultant balance sheet and EBITDA leverage.

(3 marks)

Q1.e If the mezzanine debt interest were only 65% cash paying, 35% accruing, what would be the advantages of this and what would be the implications for the financing structure?

(4 marks)

(Total 23 marks)

QUESTION 2

A leading supplier of industrial safety equipment recently increased its dividend by around 6% for the thirteenth successive year, in line with similar rates of growth in sales and profits over that period, and despite a fall in underlying sales and profits during the second half of the year to March 2017. The company intends to continue expanding through acquisition opportunities using its strong balance sheet.

The market revised its 2018 profit forecasts downwards slightly, bearing in mind both its exposure to the construction market and the company's announced programme of cost cutting. The company has been criticised for "borrowing to pay the dividend" in the last two years. Based on the consensus forecast, the prospective P/E ratio is just under 12 times, slightly ahead of mid-cap engineering peers. The shares firmed 1.5p on the news to close at 176.5p, up by 50% over the last five years, very much in line with earnings growth.

Key Financials

<i>Income Statement and Balance Sheet</i>	March 2017	March 2016
Revenue (£m)	718.3	657.9
Profit attributable to shareholders (£m)	50.284	44.011
Dividends paid and proposed (£m)	28.172	26.753
Number of shares (m)	372.75	372.75
Net debt (£m)	63.3	29.8
Capital and capital reserves (£m)	67.8	50.4
Retained earnings (£m)	178.3	156.2

<i>Cash Flow</i> (£m)	March 2017	March 2016
Profit before tax	68.0	62.2
Depreciation	11.1	9.6
Amortisation and other non-cash items	1.8	2.6
Change in working capital	(4.9)	(4.1)
Taxation paid	(17.6)	(19.5)
Cash from operations after tax	58.4	50.8
Net interest	(1.8)	(0.9)
Net capital expenditure	(18.7)	(11.2)
Acquisitions	(44.1)	(27.5)
Dividends paid	(27.3)	(25.9)
Increase/(decrease) in net debt	33.5	14.7

Required:

Q2.a Calculate the level and composition of total shareholder returns over the last few years and comment on how acceptable they have been for shareholders. Support your argument with appropriate equity metrics but do not calculate the last five years' dividends and share prices.

(4 marks)

Q2.b Assess whether the last two years' dividends have been affordable and whether the current dividend policy is sustainable given forecast earnings. Use the background information and financial data, as well as financial theory, to support your argument.

(10 marks)

(Total 14 marks)

QUESTION 3

MunchGas AG, an A-rated German gas producer, is planning an acquisition of a US shale-gas company, valued at circa USD 4.6 billion. This will be the third major acquisition in the past 15 years, which have been funded by varying mixes of equity, bank debt, bond finance and cash reserves. For example, for this particular acquisition, they plan to issue a EUR 1.0 billion, 8-year bond, targeted at institutional investors in Germany, UK and France. The company has a 30-strong treasury team. The Group Treasurer is quoted as saying “treasury is very much involved in all stages of an acquisition.”

Required:

Q3.a. Given the above scenario evaluate the use of equity, bank debt, bond finance and cash reserves respectively as sources of finance for this kind of acquisition.

(7 marks)

Q3.b Analyse the major challenges and main risk factors to be considered by the Finance and Treasury team, throughout the whole process, when funding such acquisitions.

(6 marks)

(Total 13 marks)

QUESTION 4

You are the newly appointed treasurer of HiFlo, a company which is a recent management buy-out and which includes private equity investors seeking an exit in 5-7 years. Debt is high and there is a very strong focus on generating cash at the centre and paying down debt in line with progressive covenants.

The business provides high accuracy liquid flow control valves for high pressure, high temperature applications in the food and pharmaceutical process industries where hygiene, accuracy and reliability are paramount. The technology underpinning the product was developed by an aero-space manufacturer but this application did not fit their business model, hence the MBO.

To date, all sales, manufacturing and components have been UK based/resourced. Turnover at £100m represents less than 5% of the global market which is growing at 8-12% p.a. The company's marketing strategy is to expand overseas, initially by exporting then subsequently by joint venture/licensing/partnering for local distribution. The Company's manufacturing strategy is to improve competitiveness and flexibility by much tighter management of net working assets (NWAs). The goal is to establish a high earnings growth record prior to a trade sale or IPO in 5-7 years.

As someone coming into the business with a fresh mind the finance director has asked you to set up and lead a NWA Project Management team. Currently NWAs (or working capital, i.e. stocks plus debtors minus creditors) equals 25% of annual sales, (stocks 18%, debtors 30%, creditors 23%).

Required:

Q4.a Identify the business functions you would need to engage within the project team.

(4 marks)

Q4.b Discuss and prioritise the particular type of contribution you would expect each business function to make.

(8 marks)

Q4.c Quantify the range of savings which you might reasonably expect from improved management of NWAs.

(3 marks)

(Total 15 marks)

QUESTION 5

Your relatively new and fast-growing company is considering the acquisition of a long established and listed smaller competitor. The target company has been in slow decline for some years and has recently experienced some setbacks which left it vulnerable to takeover. Both companies are UK-based.

The prospect company has a defined benefit (DB) scheme, with 50% of members still active. The most recent actuarial valuation showed liabilities of £500m, and a deficit of £100m. The DB scheme is now closed to new members but not to further accrual.

The composition of assets is:

Equities	50%
Government Securities	25%
Corporate Bonds	15%
Real Estate	<u>10%</u>
	<u>100%</u>

Consequently there is now an agreement in place with the regulator to pay down the deficit of £100m over the next 10 years.

The acquisition negotiations, if they go ahead, will include discussions with the trustees of the prospect's DB scheme in order to acquire preferred person status for your company as bidder.

As part of the acquisition due diligence process your Finance Director needs to decide what to do about the DB scheme and asks for your advice.

Your company has a defined contribution (DC) pension scheme and no experience of managing a DB scheme.

Required:

Q5.a Critically examine three alternatives for dealing with the inherited DB scheme and the implications of each for the company.

(8 marks)

Q5.b Recommend one alternative and justify your recommendation.

(2 marks)

Q5.c Explain how you would evaluate the deficit for the purposes of valuing the target company.

(3 marks)

(Total 13 marks)

QUESTION 6

K-IT software entrepreneur Sir Kit Rea recently arranged a one-year loan with Investment Bank IBG by providing 2,488,000 of his K-IT shares as collateral. Sir Kit retains voting and dividend rights. This sum, together with £26m raised from other sources, is being used to finance the purchase of a London property for his newly established K-Hotel chain.

The expectation of both parties is that the loan will be repaid. However as a hedge Sir Kit has put in place a collar option with IBG under which he has bought the right to sell shares to IBG at 362p and sold IBG the right to buy shares from him at 577p when the loan matures. Share price at date of deal was 402p.

The value of the transaction is £10m (number of shares multiplied by current share price). The amount lent by IBG is £10m discounted by a factor taking into account prevailing interest rates, credit spreads and the term.

Required:

Q6.a Critically evaluate the attractions and drawbacks of this arrangement for Sir Kit.

(7 marks)

Q6.b Critically evaluate the attractions and drawbacks of the deal for IBG.

(5 marks)

(Total 12 marks)

QUESTION 7

Your company has just negotiated a £100m 7-year LIBOR linked bullet repayment credit facility with a syndicate of four banks, led by your relationship bank, to fund a step increase in production capacity.

The company's policy for interest risk management is to swap to fixed at the outset in order to protect the project return, so the return has been calculated on the basis of hedging at the current 7-year interest swap rate.

In addition to the new facility, there is outstanding term debt of £100m, comprising the amortising phases of previous loans all at interest rates fixed to maturity, and running off over the next 4 years.

The Finance Director believes that interest rates will continue at the current low level for some time to come and therefore is in favour of postponing a fix for the new facility contrary to past practice.

Before sharing his belief with the Chief Executive the Finance Director seeks your advice, as Treasurer, about how to implement his view without taking undue risk. Of particular concern is the need for a monitoring system to flag when action to hedge might be necessary.

As interest rates on term debt for capex have been fixed in the past, monitoring of swaps/hedges has been minimal, focusing only on collateral exposures.

Current interest rate data:

LIBOR: 3mth = 0.31%; 6mth = 0.46%
Swap rate: 7 year = 1.16%

Required:

Q7.a Propose methods for monitoring and managing the interest rate risk arising from postponing the hedge to fixed interest rates. You are required to justify the methods you have proposed.

(8 marks)

Q7.b Discuss the appropriateness of the Finance Director's preference to postpone the hedge.

(2 marks)

(Total 10 marks)

ADVANCED DIPLOMA

GENERAL EXAMINATION - NOTE FORM ANSWERS

OCTOBER 2017

QUESTION 1 STRUCTURING AND VALUING A LEVERAGED DISPOSAL

[41.4 mins, 23 marks]

Q1.a

(10.8 mins, 6 marks)

[Marking scheme; 1/3 mark for each good point]

Medium growth forecasts, average-to-high multiples. ¹

EBITDA 2018 ² = 427m. ³ Multiples range, say, 10 ⁴ /12/14, ⁵ gives EV range 4.3 ⁶ / 5.1 / 6.0 ⁷ bn

Prospective un-levered ⁸ pre-tax profit = 394m, ⁹ less tax @ ¹⁰ 20% = ¹¹ 315.2m PAT. P/E range 14 ¹² /16/18, ¹³ gives EV range 4.4 ¹⁴ / 5.0 / 5.7 bn ¹⁵

Alternatively; prospective ⁸ levered pre-tax profit (assuming EBIT interest cover of 5.0), ⁹ gives 394m, less interest of 78.8m, ¹⁰ less tax @ ¹¹ 20% = 252.2m PAT. ¹² P/E range, say, 12 ¹³ /14/16, ¹⁴ gives equity value range of 3.0 / 3.5 / 4.1 bn. ¹⁵ Plus debt @ 5%, ¹⁶ therefore 78.8m / 5% = debt of 1.6m ¹⁷ EV range therefore 4.6 ¹⁸ / 5.1 / 5.7bn ¹⁹

EV range therefore 4.3 ¹⁵ to 6.0bn, ¹⁶ with best estimate, say, ¹⁷ 5.0bn. ¹⁸

Some candidates also calculated multiple-based values at 2023 and discounted the values back to present values, which was good in principle, but most did not adjust the multiples down for the ex-growth scenario.

[NB. Using an appropriate logic and implementing it correctly is most important but also choosing “reasonable” assumptions and getting answers in a feasible range].

Q1.b

(10.8mins, 6 marks)

[Marking scheme; 1/3 mark for each good point]

N.B. Norms for leverage multiples, even in LBOs, have varied considerably over time, and are much lower in 2017 than in 2007 for example. The multiples used in these answers are therefore only illustrative (and a bit on the high side for 2017). Candidates will be rewarded for correct logic and not punished for different, but “reasonable”, assumptions. They should, however, be able to comment intelligently

about their resulting capital structure and put it in context.

Assume maximum Senior Debt ¹ / EBITDA of 5.5 ² times, giving debt of 5.5 x 427m ³ = 2,349m. ⁴ Assume a credit spread of 3%, ⁵ with EURIBOR at 2% this gives an average interest rate of 5.0% ⁶ and senior debt interest in year 1 of 117.4m. ⁷ PBT = 394m – 117.4m = 276.6m, ⁸ tax @20% = 55.3m, ⁹ PAT = 221.3m. ¹⁰ This gives senior interest cover of 3.6 ¹¹ (EBITDA), 3.4 (EBIT).

[Alternatively; minimum EBITDA ¹ interest cover of, say, 3.8 ² (or PBIT cover of 3.5) could be used to determine senior debt of 427m ³ / 3.8 = 112.4 ⁴ / 5% ^{5,6} = 2,247m ⁷ – this method is equally acceptable. PBT = 286.9m, ⁸ tax = 57.4m, ⁹ PAT = 229.5m. ¹⁰ with Debt / EBITDA of 5.27.]

Cash from operations in year 1 is forecast at 353m. ¹¹ Subtracting tax (55.3m) ¹² and senior interest (117.4m) ¹³ gives **180.3m**. ¹⁴ Repayment of Tranche A senior debt of 100m, ¹⁵ leaves residual cash flow is 80.3m. ¹⁶

After-tax cash cover for interest and repayment is therefore (353m ¹⁷ – 55.3) / 217.4m = 1.37, ¹⁸ which is very acceptable. ¹⁹

Q1.c

(7.2 mins, 4 marks)

[Marking scheme; 1/3 mark for each good point]

Non-amortising mezzanine debt carries a lot more risk ¹ than senior debt because of subordination, ² longer repayment and likely PIK ³ features, so interest rate, say, 9%.⁴

Direct calculation;

Cash flow after senior debt service = 80.3. ⁵ Allowing for mezz. interest cash cover of, say, 1.33 means using 75% ⁶ of the year one residual cash for mezz interest. Allowing for the tax ⁷ shelter benefit gives (80.3 x 0.75) ⁸ / (0.09 x 0.8) = ⁹ 836m debt and gross interest of 75.2m ¹⁰ (net 60.2m). Residual cash flow is now 80.3 – (836 x 0.09 x 0.8) = 20.1m. ¹¹ Now checking cash cover for total debt servicing; total cash interest and repayments = 117.4+100.0+75.2 = 292.6. Cash flow after tax = 353 – 55.3 + 15.0 = 312.7, so total debt service cash ratio = 312.7 / 292.6 = 1.07. ¹²

Alternative calculation (illustrated in the table below);

Choose a minimum EBITDA ⁵ total interest cover of, say, 2.25 ⁶ times.

Total interest, therefore, of 427 / 2.25 = 189.8m, ⁷ giving mezzanine interest of 72.4m ⁸ and mezzanine debt of 72.4m / 0.09 = 804.4m. ⁹

Residual cash flow was 80.3m, subtract mezz. interest of 72.4m ¹⁰ (net 57.9), but add back tax shelter of 14.5m leaves residual cash flow of 22.4m. ¹¹ Total cash interest and repayments = 117.4+100.0+72.4 = 289.8. Cash flow after tax = 353 – 55.3 + 14.5 = 312.2, so total debt service cash ratio = 312.2 / 289.8 = 1.08. ¹²

This leaves little room for error, ¹³ but assumes mezz. interest is 100% cash paid.

Q1.d

(7.2 mins, 4 marks)

[Marking scheme; 1/3 mark for each good point]

Initial EV valuation was 5,000m. ¹

Senior debt = 2,349m, mezzanine debt = 804m, ² requiring equity of 1,847m. ³

Capital leverage ⁴ = $3,153 / 5,000 = 63\%$ ⁵ debt (senior debt 47%, ⁶ mezz 16%), 37% equity.

Debt / EBITDA ⁷ leverage = $3,153 / 427 = 7.4$ times.

These are fairly typical leveraged deal structures and ratios. ⁹

A lower initial valuation would push up the leverage ratios and vice-versa – this was allowed for in marking. Comments required on the resultant financial structure and ratios, whatever the end result. ^{10, 11, 12}

Q1.e

(5.4 mins, 3 marks)

[Marking scheme; 1/3 mark for each good point]

The full 9% interest is still charged to the P&L and is tax-deductible, ¹ but cash flow benefits by the amount of the deferred interest, ² which could be critical where cash flow is tight, ³ especially in the early ⁴ years. Alternatively, the cash flow could support more debt and, hence, less equity would be required ⁵ from the PE owners. Mezz. debt, therefore, allows increased flexibility in finessing the capital structure.

If the mezzanine interest is 65% tax paying the cash saving would be $72.4m \times 0.65 = 25.3m$, ⁶ and extra mezz debt of $25.3 / (0.09 \times 0.8) = 351m$ ⁷ could be serviced, giving a new total for mezz debt of 1,155m. ⁸ Mezz debt now 23% of total finance and total debt 70%, or $3,504 / 427 = 8.2 \times$ EBITDA. ⁹ These levels used to be seen before the GFC but no longer. ¹⁰

Alternatively, on the original amount of mezzanine debt, cash flow could benefit by the 25.3m, increasing the cash debt service ¹¹ cover from 1.08 to ¹² 1.18 ($312.2 / (289.8 - 25.3) = 312.2 / 264.5 = 1.18$) – much healthier. ¹³

N.B. A full 5-year projection is given below for future learning purposes (obviously with a lot of detail not required in the exam).

General Exam Work Sheet (Question 1, October 2017)				Candidate number					
Elecco Bv.									
<i>Income Statement</i>				Sep-18	Sep-19	Sep-20	Sep-21	Sep-22	Sep-23
EBITDA				427	464	495	525	541	551
EBIT	<i>interest rate</i>	<i>debt amount</i>		394	423	455	473	489	498
Senior Debt Interest	@	5.0%	2,349	(117)	(112)	(107)	(102)	(97)	
Mezzanine interest (100% cash paid)				(72)	(72)	(72)	(72)	(72)	
PBT				204	239	275	299	319	
Tax @ 20%, after senior debt interest				(55)	(62)	(69)	(74)	(78)	
Tax shelter on mezzanine interest				14	14	14	14	14	
PAT				163	191	220	239	255	
<i>EBITDA / Senior Interest</i>				3.64	4.13	4.60	5.12	5.55	
<i>EBITDA / Total Interest</i>				2.25	2.51	2.75	3.00	3.18	
<i>Senior Debt / Prospective EBITDA</i>			5.5						
<i>Total Debt / Prospective EBITDA</i>			7.4						
<i>Cash Flow Statement</i>									
EBITDA				427	464	495	525	541	551
Working capital				(25)	(17)	(7)	(15)	(7)	(10)
Total capex				(50)	(46)	(49)	(56)	(59)	(63)
Cash from operations				353	401	438	454	475	478
Tax paid (before mezzanine interest)				(55.3)	(62.2)	(69.5)	(74.2)	(78.3)	
Senior interest Paid				(117.4)	(112.4)	(107.4)	(102.4)	(97.4)	
Senior loan repayments				(100)	(100)	(100)	(100)	(100)	
<i>Senior loan balance (based on EBITDA multiple)</i>	5.5	2,349		2,249	2,149	2,049	1,949	1,849	
Cash flow after senior debt service				80.3	126.3	161.4	176.9	199.2	
<i>Max. total interest (based on min. EBITDA cover)</i>	2.25	189.8							
Mezzanine interest (100% cash paid)				(72.4)	(72.4)	(72.4)	(72.4)	(72.4)	
Tax shelter on mezzanine interest	20%			14.5	14.5	14.5	14.5	14.5	
Cash flow after mezzanine interest				22.4	68.4	103.5	119.0	141.3	
<i>Mezzanine debt @ 9% interest (100% cash paid)</i>	9.0%	804							
<i>Mezzanine debt if 65% cash paid</i>	65.0%	1,156							
<i>Cash flow/ total debt service</i>				1.08	1.24	1.37	1.43	1.52	
Valuation (middle)	5,000			Valuation (middle)			5,000		
Total senior debt	2,349	47.0%		Total senior debt			2,349	47.0%	
Mezzanine (100% cash paid)	804	16.1%		Mezzanine (65% cash paid)			1,156	23.1%	
Equity (100% mezz. cash paid)	1,847	36.9%		Equity (65% mezz. cash paid)			1,495	29.9%	

QUESTION 2 DIVIDEND POLICY

[25.2 mins, 14 marks]

Q2.a

(7.2 mins, 4 marks)

[Marking scheme; 1/3 mark for each good point]

Share price before the recent increase = 175p. ¹

Dividends per share = $28.172^2 / 372.75 \times 100 = 7.558\text{p}$. ³

Dividend yield = $7.558 / 175 = 4.3\%$ (assumed to be typical ⁵ for the company, given stable policy)

Share price growth ⁶ (CAGR) = $1.5^{0.2} = 1.0845^7$ i.e. **8.45%** per annum.

Total annual shareholder return = **12.75%**. ⁸

Quick calculation of required return for an average-risk company = $1.2 + (1.0^9 \times 4.2) = 5.4\% \pm 10$

Conclusion; excellent ¹¹ return over the last five years – a better than average ¹² dividend yield for a mid-cap. company (typically about 3.5%?) plus sustained growth. ¹³

Q2.b.

(18.0 mins, 10 marks)

[Marking scheme; I have 40 detailed points but not all expected so, 1/3 mark for each good point]

P&L dividend cover ¹ = $50.284 / 28.172 = 1.78$ (2016 = 1.65). Pay-out ratio 58% average, which is high. ³ Company exhibits stable growth ⁴ but there is uncertainty from sector problems ahead and the acquisition strategy, so the level of cover looks slim. ⁵

Cash flow after capex and interest = 37.9m ⁵ (2016 38.7m). Interest is negligible and capex at 1.44 times depreciation is almost certainly well above replacement level, ⁶ maybe by about 3m per year.

So, the cash cover ⁷ ratio for dividends of 27.3m = 1.39 ⁸ (2016 1.49m) – “headroom” 10.6m and 12.8m respectively – ⁹ very comfortable.

“Borrowing to pay the dividends” is a misleading comment ¹⁰ – borrowing to pay for acquisitions would be more accurate. ¹¹ Company has borrowed 48.2m over the last two years as against acquisitions of 71.6m ¹² i.e. 67%, so 33% ¹³ was funded internally. In other words, 23.4m cash-flow was generated after dividends, compared with retained profit of 39.4m, a good conversion rate. ¹⁴

Dividends can only be paid out of distributable reserves but retained earnings stand at £178.3m while the annual dividend is £28.2m, so no problems for the foreseeable future. ¹⁵

Conclusion; the last two years' dividends have been affordable. ¹⁶

Profit after tax (earnings) increased by ¹⁷ 14.3% in 2017. Prospective P/E ¹⁸ is 11.9, latest share price is 176.5p, ¹⁹ so prospective eps = 14.832p, ²⁰ giving earnings of

55.29m, ²¹ which is 11.0% ²² up on 2017. This looks very ²³ good given the bad news items and compared with historical earnings growth of 8 to 9%. In years with no acquisitions there would be big cash ²⁴ surpluses; in years with big acquisitions the low gearing ²⁵ means debt finance should be readily available. ²⁶

A cyclical ²⁷ down-turn would increase pressure on cash flows but the company seems to have delivered consistent steady growth in profits etc over a long period of time.

Debt/market cap. ²⁸ = $63.3 / (372.75 \times 1.765) = 63.3 / 657.9 = 9.6\%$ ²⁹ - very low.

Conclusion; the current dividend is affordable and the 6% growth dividend policy sustainable. ³⁰ In principle, this is obvious since earnings grow at 8% and the share price has increased at a similar ³¹ rate, so the market must generally agree.

Both finance theory and practical considerations indicate that stability ³² in the pattern of dividend payments is a key consideration, so both investors and company know what to expect. Different investors prefer yield over growth, ³³ and vice-versa, for tax and other reasons – the “clientele effect.” ³⁴ Maintaining a dividend policy “despite a fall in sales and profits” is a key aspect of such a stable policy, but to be seen by the market as sustainable i.e. the recent dip in profits must be seen and explained by management as temporary. ³⁵

According to finance theory, if there were no ³⁶ tax differentials between dividends and capital gains, investors should be indifferent between the two sources of ³⁷ income, and, where corporate cash flows are tight, management should also ³⁸ be indifferent between a) retaining the cash and b) funding dividends with ³⁹ borrowing (“dividend irrelevance ³⁷ theory”). In this case the company only needs to borrow to finance acquisitions, not the dividends, so it is not cash constrained. ⁴⁰

If management had to consider a cut in the dividend because of the recent problems this would be seen as a very strong negative “signal” to the market that future prospects meant that the dividend policy was not sustainable – “signalling theory”. ³⁹

QUESTION 3 TREASURY IN ACQUISITIONS

[23.4 mins, 13 marks]

Q3.a

(12.6 mins, 7 marks)

[Marking scheme; I have 27 detailed points (and there may be more) but not all expected so, 1/3 mark for each good point]

Equity;

The least useful for initial ¹ funding of an acquisition – issue costs, ² procedures, ³ consents, overall cost, ⁴ lack of confidentiality. ⁵

May be required after the debt-funded acquisitions ⁶ to re-balance capital structure and reduce leverage. ⁷

Eps dilution to consider. ⁸

Part-share offer may be appropriate in some situations. ⁹

Market appetite for rights issue?

Bank debt;

Banking facilities, bi-laterals, multi-laterals – great variety. ¹⁰

The most readily ¹¹ accessible source of finance, and very deep ¹² market, even after GFC.

Available at short notice ¹³ for a well-organised Treasury. ¹⁴

Short maturities can be re ¹⁵-financed later with term debt.

Ideal for meeting unforeseen contingencies, bridging situations. ¹⁶

Confidentiality good. ¹⁷

Maintaining bank relationships is key. ¹⁸

Cash;

Most readily accessible ¹⁹ but unlikely to be sufficient ²⁰ for 100% funding of larger acquisitions.

War chest will need to be restored/re-built ²¹ afterwards.

Bonds;

For a rated company the main source of debt finance, ²² especially longer maturities. ²³

Requires more planning and rating management, ²⁴ especially leverage ratios.

Timing and choice of markets, ²⁵ currencies are important.

Mainly for re-financing ²⁶ not immediate financing of deals, unless issued in advance ²⁷ for a war chest.

Q3.b.

(10.8 mins, 6 marks)

[Marking scheme; I have 23 detailed points (and there may be more) but not all expected so, 1/3 mark for each good point]

FX hedging ¹ of all operational and ² funding exposures connected with the acquisition.

Timing considerations ³ re. market volatilities, pricing,⁴ availability of funding,⁵

investor demand.

Pension issues ⁶/problems in target company.

Detailed, close, confidential working with rating ⁷ agencies at earliest. Decide size of debt and equity issues to preserve chosen ⁸ rating, given ex-post financial position ⁹ and business/strategic implications. ¹⁰

Economic or company-specific factors ¹¹ impacting on ratings and/or funder/investor appetite e.g. oil and gas bad news.

Possible threats to and problems in company's and target's existing debt and bank facilities. ¹² Also to bank relationships because of e.g. conflict of interest issues. ¹³

Risks regarding integration of the target's treasury function ¹⁴ of the acquired business and target's intra-group funding. ¹⁵ Ensuring funds are flowing from day one to all parts ¹⁶ of the acquired company, more complex if a large group.

Equity book-building ¹⁷ if required.

Managing syndication ¹⁸ members and bond ¹⁹ issuers.

Ensuring the cash is available and in the right place to complete ²⁰ the acquisition.

Counter-party risk on banks ²¹ involved in funding and all other relevant ²² third parties.

Refinancing s.t. debt and managing maturities profile vs. cash flows. ²³

Securing all necessary business regulatory approvals. ²⁴

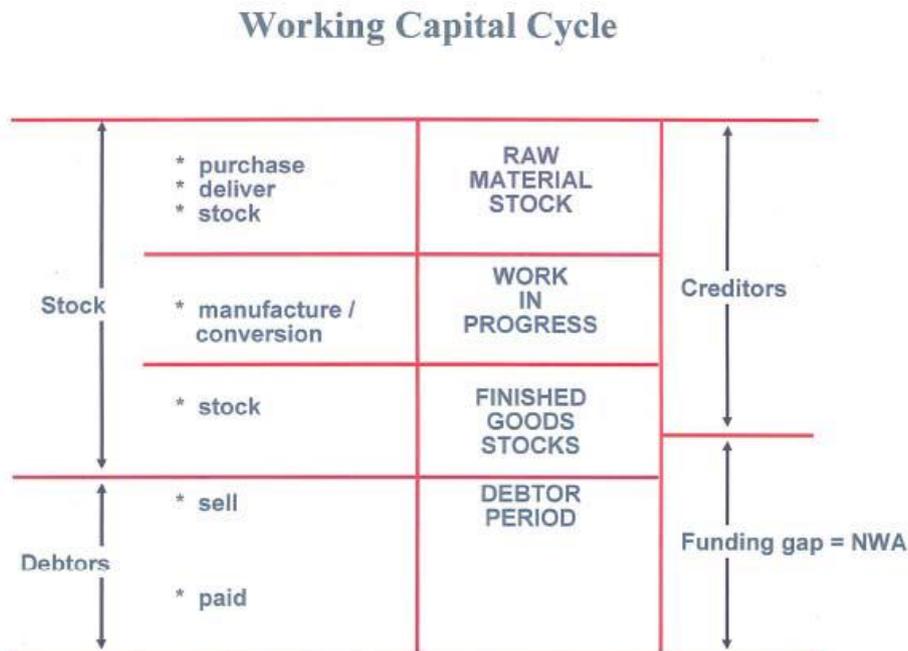
Ensuring confidentiality with all parties

QUESTION 4 WORKING CAPITAL ECONOMIES

[27 mins, 15 marks]

Background

Working capital cycle for a manufacturing company is shown diagrammatically below:



The **level** of NWAs, expressed as % annual sales, varies enormously for different types of business. For instance engineering manufacturers might run at + 20% to + 30% and retailers at - 2% to - 8%.

The **characteristics** of NWA (stocks, debtors, creditors) are determined by several functional areas as exemplified below, and can be altered by day-to-day management responses (first level) and by longer term strategic responses, possibly requiring significant capex (second level).

Overall, significant change needs a functionally integrated approach with strong Board backing, using a structured “project management team” methodology and an “out of silo” response from line management. Very important is the involvement of external parties, eg big suppliers, big customers, possibly bank supply chain specialists. For a manufacturer, large savings may involve significant capex in equipment and technology.

Framework

Below is a detailed but not exhaustive framework for classifying business functions, with corresponding examples of first level and second level responses, likewise not exhaustive.

[Marking scheme; 4.a/4.b for a pass, acknowledgement of a majority of the main drivers of NWAs, e.g. procurement, operations, product/technology, sales/marketing and financial control – thereafter, depth and quality of the narrative; for 4.c, credibility and arithmetic of the quantification, including interest savings.]

Q4.a WHAT BUSINESS FUNCTIONS? (7.2 mins, 4 marks)	Q4.b WHAT CONTRIBUTIONS? (14.4 mins 8 marks)	
	First Level Responses eg management	Second Level Responses eg capex
Procurement	Terms of trade “Just in time” delivery	Supply chain Preferred Suppliers Supplier rationalisation
Operations - Production Control - Manufacturing/Technical	Raw materials/parts stock Progress control (W.I.P.) Finished good stock	Plant layout Product handling, processing Quality control, shrinkage Manufacturing plant design Outsourcing
Logistics/Distribution	Delivery schedules	Transport/depot infrastructure

QUESTION 5 ACQUISITION INCLUDING D.B. PENSION SCHEME

[23.4 mins, 13 marks]

Context

The scheme is already closed and 50% of members are no longer active while the other 50% are still employees but no longer contributing to the scheme.

If the acquisition goes ahead, the employees of the acquired company will be your company employees, working at all levels. So what happens to their DB, albeit closed, matters in terms of the signals it sends to them. More immediately, you need to convince the trustees that you are well-intentioned.

Q5.a

(14.4 mins, 8 marks)

[Marking scheme; to pass, reference to two of (i) to (iv) and one other credible alternative, as well as short summary of implication for the acquired.]

Possibilities include:

- (i) Hold, assume passive role
- (ii) Hold, assume active role
- (iii) Exit, pay a third party to assume ownership.
- (iv) Hold, outsource

Implications:

- (i) Long term involvement in an unfamiliar area with the drain of the deficit and uncertainty about further deficits. Result: possibility that deficit increases dangerously.
- (ii) Possibility of economic savings in the longer term but if you get it wrong someone else's problem becomes yours. Result: possibility of downside greater than deficit; cost of acquiring expertise; upside more likely than with (i) but an extra function to manage for legacy purposes only.
- (iii) Exit, pay a third party to assume ownership. Significant cost of making good the deficit but achieve certainty and avoid being tainted by a problem of someone else's making. Result: certainty.
- (iv) Outsource to a third party if you can't afford to exit now. Result: Reduce uncertainty of (i) at a cost.

Candidates' Choices	% of Students who mentioned
(i) Hold, assume passive role	72%
(ii) Hold, assume active role	56%
(iii) Exit, pay a third party to assume ownership.	81%
(iv) Hold, outsource	44%
(v) Other possibilities	31%

The “%” shows that 72% of students mentioned possibility (i), 56% mentioned possibility (ii) and so on.

Q5.b

(3.6 mins, 2 marks)

[Marking scheme; 3 points to pass.]

Exit now if funds permit, get certainty, avoid possible distractions in an unfamiliar functional area which could result in making matters worse – a useful point to make to the trustees; and then negotiate the risk adjusted cost into the acquisition price.

Q5.c

(5.4 mins, 3 marks)

[Marking scheme; for a pass, responses which involved the current shortfall adjusted for future potential downside movement – with the “transfer price” as a surrogate.]

QUESTION 6 STRUCTURED PRODUCT RATIONALE [21.6 mins, 12 marks]

I.T. entrepreneur Sir Kit Rea has pledged personally owned shares in the software business he created as security to finance a property for his embryo hotel chain. He has, at the same time, executed a collar equity option with the lending bank to reduce his downside risk on the property transaction by giving away some of the potential upside on the K-IT shares.

General points

- Sir Kit is the principal in this transaction and not K-IT and the shares are his personal assets
- The loan is interest bearing
- The stock is collateral
- The “collar” is probably zero cost

[Marking scheme: for a pass, demonstrated understanding of the rationale for the structure; additional marks for quality and completeness of the narrative.]

Q6.a Attractions and drawbacks for Sir Kit.

(12.6 mins, 7 marks)

Sir Kit cannot borrow unsecured and has had to use his shares as collateral but with this arrangement retains his voting rights and his dividend income.

If the hotel deal succeeds he may be able to refinance the borrowing against the asset acquired and/or the related income stream within the one-year timeframe.

If the deal fails/can't be refinanced and the share value has fallen below 362p he can exit without loss other than the fall in share price to 362p.

Attractions for Sir Kit:

- gets the loan
- retains dividend and voting rights
- floors loss
- zero cost option
- £26m existing facility is probably at LTV limit
- suits his risk appetite
- if deal is successful and adds value to property, can refinance after a year

Drawbacks:

- margin cost
- potential loss of upside on shares
- refinance risk at 1 year
- “cost” of collar (even if zero cost there is spread on options)

Q6.b Attractions and drawbacks for IBG.

(9.0 mins, 5 marks)

The bank has been able to lend to a sub-investment grade borrower without providing a conventional debt facility and attracting the unsecured loan capital charge.

The bank also gets the upside of a rise in the share price and the spread on the options.

The bank has done the equivalent of a 1-year reverse repo with Sir Kit with a large haircut and embedded a (probably) zero cost capital hedge for Sir Kit.

Attractions to Bank:

- secured loan, lower capital cost
- probably good margin
- big upside
- derivative business (options)

Drawbacks:

- potential loss
- refinance may fail

QUESTION 7 INTEREST RISK MANAGEMENT**[18.0 mins, 10 marks]****Q7.a Monitor & Manage Postponement of Hedge****(14.4 mins, 8 marks)**

[Marking scheme; to pass, evidence of metrics to measure the risk, trigger to signal action and arrangements to implement; thereafter quality of discussion.]

There is £200m of debt, including the new loan of £100m. The £100m of older debt is comprised of the amortising principal of previous loans. The new debt is 50% of the total. This new loan proportion will be rising over the next few years as the older loans all amortise and therefore becoming more material to total interest cost and weighted average cost of capital.

The new loan is non-amortising. Potential saving from not fixing at current rates is £0.7m p.a. against the 6-month rate in Year 1.

However the banks may have agreed the loan on the basis that, as previously, rates would be fixed (and taken account of the swap business in pricing the loan).

If the decision to postpone is adopted, then the company is taking the view that in the short to medium term interest rates will not change – and that when they do there will be enough time to fix rates.

The benchmark against which to manage will be the 1.16% seven-year swap rate.

To monitor and manage the exposure against the benchmark, the remaining period of the loan needs to be continually monitored. As soon as the yield curve moves adversely so that the new rates emerging, offset by any savings to date, threaten the benchmark, then a hedge needs to be placed.

Swap rates out to seven years are shown in the table below. Assume a simplified world where the yield curve shifts only once a year. Further assume that no change has occurred by the end of Year 1. The £700k saved against the benchmark rate, if invested for the remaining 6-year term of the loan, at the six-year swap rate of 1.13% would be £0.121m per year. So as long as the current swap rate for the remaining term stays below £1.281m (1.160+0.121), the “postponement” at worst breaks even.

YEAR	SWAP %	SAVE £K	SAVE YR 2	SAVE YR 3	SAVE YR 4	SAVE YR 5	SAVE YR 6	SAVE YR 7
		no change			if invested			
1	0.75	700						705
2	0.87	700					355	355
3	0.96	700				238	238	238
4	1.03	700			180	180	180	180
5	1.08	700		145	145	145	145	145
6	1.13	700	121	121	121	121	121	121
7	1.16		121	266	446	684	1039	1744

Assume now that the yield curve is still the same at the end of year two. If again this further £700k were to be invested at the 5-year swap rate, then the benchmark would have an additional £0.145m in hand, making a total of £1.426m. The breakeven swap rate is now 1.426%.

Of course if rates were beginning to move adversely then the position could be closed out to protect the historic gain.

Reality is of course more complex. Apart from a rise in rates or a fall in rates across all maturities where the direction of impact is obvious, the yield curve may move in opposite directions at each end, where the impact can be positive, negative or neutral depending on magnitude. And these changes may occur over a relatively short period so that constant monitoring is necessary.

Management of the position requires agreeing a facility with a bank at the outset to swap for the remaining maturity if and whenever that becomes necessary, drawing up the documentation and establishing the process to monitor and trigger execution.

Issues:

- CFO's risk appetite, eg possible impact on interest cover, p/l, collateral
- Monitoring frequency;
- Position valuation rates;
- Who to monitor the position
- Oversight of position

Q7.b Appropriateness of Postponement?

(3.6 mins, 2 marks)

[Marking scheme; evidence of understanding the interplay between company risk appetite (Board), expertise in treasury to manage an open position and the nature of the motivation to change policy for a pass; thereafter quality of the discussion.]

The appropriateness of the preference to postpone depends on the FD's motivation. At one extreme, if it is an attempt to undermine the Board's policy of "certainty first" and exercise a personal desire to speculate/make profit/look good by dangling the prospect of a seemingly low risk but material return, then it is inappropriate. If at the other extreme the firm is developing and there is a need to develop treasury expertise and at the same time educate the Board about the complexities of interest risk management with a "live" controlled exercise, then it is appropriate.

A few candidates spotted a variant on the latter argument: taking on the new loan means that *de facto* the firm now has £200m of debt with 50/50 fixed and floating. So it would be appropriate to challenge whether the historic policy of 100% fixed should be reviewed and changed to a fixed/floating mix, e.g. to provide the flexibility to switch to capital market finance without attracting swap breakage costs. In short:

- Encourage:
 - if you have the resources to monitor and manage and it's within the Board's risk appetite
 - if your mission is to develop expertise of treasury
- Discourage:
 - if you believe that the FD is trying to foist a move to higher risk appetite against the preferences of the Board
 - if there is not the expertise and systems in house to monitor and manage the position.

Finally, there may be more material issues currently afoot within treasury/the company – if so, then changing interest risk policy now may not be a first priority, especially as rates seem to be rising.

Examiner's Report

Advanced Diploma - October 2017

OVERALL SUMMARY OF PERFORMANCE

	General Exam	Case Exam	Combined
Average mark	52.3%	44.4%	48.4%
Questions	7	8	15
Students	17	17	34
Passes # @ 50%	11	8	19
Passes # @ 45%	12	9	21
Pass % (50%)	65%	47%	56%
Pass % (45%)	71%	53%	62%

Range of marks 6.9% to 68.6% 9.1% to 69.1%

OVERVIEW

These results were, overall, very similar to the October's 2016 figures. The Case exam results were much better than last October's but those for the General exam were much worse. When the two exam marks are combined nine candidates passed at the 50% level, three of them with marks over 60%, but six candidates scored less than 40%

This sitting saw better results on the General exam (average mark 52.3%) than the Case exam (average mark 44.4%). Across the two papers the results on Corporate Finance and Funding were very similar to those on Treasury and Risk Management, with strong correlations between the two. The average mark awarded by GI on the Corporate Finance and Funding questions was 46.6% as against 47.7% awarded by JB on the Treasury and Risk questions, resulting in 10 and 9 passes respectively (50% pass level).

General exam	marks available	50% passes ex. 17	average mark
Q1 (GI)	23	10	56%
Q2 (GI)	14	4	37%
Q3 (GI)	13	12	61%
Q4 (JB)	15	15	59%
Q5 (JB)	13	14	54%
Q6 (JB)	12	9	44%
Q7 (JB)	10	12	52%
Case exam	marks available	50% passes ex. 17	average mark
Q1 (GI)	12	5	41%
Q2 (GI)	12	12	55%
Q3 (JB)	14	13	53%
Q4 (GI)	13	7	42%
Q5 (GI)	13	4	39%
Q6 (JB)	12	7	37%
Q7 (JB)	12	7	40%
Q8 (JB)	12	9	47%

Examiner's Report - General Examination

On the three corporate finance and funding questions the distribution of marks is distinctly bi-modal; the 12 candidates who achieved an overall pass averaged 60.7%, whereas the 5 “fails” averaged only 31.1%. This bi-modal pattern was evident across each of the three corporate finance questions, though the results on question 2 were much weaker. So, the good work was very good, but a minority of candidates just did not know their stuff. The overall average mark was 52%.

For the four treasury and risk management questions the 9 candidates who passed averaged 64.5%, while the remainder averaged 39.3%; the overall average was 52.6%. The bi-modal pattern was most notable on question 6.

Question 1 A 5-part question valuing a disposal and structuring its finances.

This demanding, largely quantitative question was generally answered very well, particularly the core valuation and senior debt/equity funding sub-questions. Some candidates assumed somewhat high or somewhat low multiples (in my judgement) for the valuation of the level of debt, but nevertheless achieved good marks for subsequent sound logic and arithmetic. Less well answered were parts 1c and 1e, concerned with aspects of mezzanine debt.

On the valuation question some candidates did get confused and lost, by attempting the wrong valuation method. The question specifically asked candidates to choose valuation multiples, given the expected growth rate, which would be best applied to the prospective 2018 EBITDA or earnings – quite simple. Some candidates decided, however, to do a DCF valuation based on the 2023 EBITDA, discounted back to 2017, but often failed to include the NPV of EBITDA for the intervening years, which would have made it a technically correct valuation. Despite the errors marks were given where appropriate, but another common mistake was not adjusting the multiple for a lower growth rate from 2023 onwards.

Similarly, in determining the equity required in Q1d, the simple method is to take the amount of debt decided on (Q1b and Q1c) from the EV in Q1a. A few candidates abandoned their initial EV and attempted the Private Equity method of valuing the disposal value at 2023, minus the residual net debt, discounted to PV at a high Private Equity discount rate. This is a valid methodology but it was not asked for. It requires comprehensive cash flow projections, including interest, debt interest and repayments, dividends and taxes debt, which were not provided and would not be expected of candidates in exam conditions. It also requires strong command of the methodology, which was not apparent

in any of the candidates who attempted it. Again, marks were given where possible despite all the errors.

Question 2 A 2-part question on evaluating equity returns to shareholders and sustainability of dividends.

Surprisingly, this question was not very well answered. Despite the clear instruction not to estimate previous share prices and dividends per share, quite a few candidates did so and usually got in a mess with the numbers. A simple CAGR calculation on share price growth was all that was required. Similarly, quite a few candidates did not manage to do the simple calculation of the current dividend yield. Finally, no one estimated, or even referred to, the required return on equity (CAPM or otherwise), despite the instruction to use appropriate equity metrics to demonstrate the acceptability of total shareholder returns.

In Q2b the average mark was about 33%. The historical flow-flow performance was generally well done and most candidates concluded that the dividends had been affordable. However, not many dealt with the quotation in the question that the company had to “borrow to pay the dividends” – “all funds are fungible” but effectively it had to borrow to pay for the acquisition. Also, despite the prompt in the question about earnings forecasts few candidates used the available information to assess future affordability of the dividend policy. Finally, hardly any candidates covered the finance theory part of the question – it should have been kept as a separate sub-question as in the original formulation.

Question 3 This two-part question was concerned with the use of different funding sources to fund large acquisitions, and the challenges and risk for treasury to consider and manage during the acquisition process

This question saw the highest average mark and the highest pass rate for the three corporate finance and funding questions. The first part, on different funding sources, was very well answered (average mark 70%), although four candidates either mis-read the question or had very little

to say on the topic. The second part, on challenges and risks (average mark 50%), was more demanding in that it was wider in its scope and more open-ended. The best answers covered three main areas; all kinds of commercial, financial and economic risks, procedural funding issues and specific technical and organisational treasury matters. The weaker answers were nowhere near as comprehensive in their coverage.

Question 4 A 3-part question about convening an in-house project team to manage down investment in net working assets: which functions to involve, respective contributions and expected savings.

This question had the highest pass rate and the highest average mark for the four treasury and risk management questions. This is pleasing because it is a core area, particularly for manufacturing companies where working capital intensity may be higher than fixed capital intensity but is more amenable to close management. The context had three main strands: (i) a very high-tech manufactured product in a firm with an engineering culture, (ii) a bias to quality and customer service and (iii) new owners with a high focus on cash generation in the short and medium term. These cross currents reach parts of the business well beyond basic accounts payable/receivable and stock control and were well understood by candidates. Nonetheless a few omissions are worth noting: e.g. the need to involve major customers and board level management, the desirability of proposing second order innovations requiring initial (but short pay-back) capex. Fifteen candidates passed, scoring an average of 62%.

Question 5 Another 3-part question about planning the management of an “in-deficit” defined benefit pension scheme likely to be inherited with a proposed acquisition: possible management alternatives, preferred alternative and evaluation of the deficit for inclusion in the target company price.

A topical question, well-answered, with 14 candidates passing, scoring an average of 61%. The obvious alternatives (part 5.a) are to assume

responsibility for the existing active DB members' scheme and then to actively manage it, to outsource it or to pay the cost of transferring full responsibility to a third party: responses were dominated by these alternatives. The choice of alternative (part 5.b) introduces broader issues, e.g. expertise to manage a DB scheme, winning the confidence of trustees and of employees who transfer across to the new merged company, ensuring the continued commitment of existing employees. The majority view was to exit in favour of a third party and to outsource. Part 5.c would merit featuring as a standalone question. However for 3 marks responses which involved the current shortfall adjusted for future potential downside movements would suffice for a pass – with the “transfer price” as a surrogate.

Question 6 A 2-part question about a successful IT entrepreneur part-financing a new business venture with a loan structure involving a collar option on some of the entrepreneur's shareholdings in the IT business.

Treasurers often encounter structured products in the course of discussions with financial product providers and advisers. Questions like this one appear regularly as a test of candidates' ability to understand the rationale underpinning such products. In this instance, the successful entrepreneur, borrowing to help finance an entirely new venture, puts up as collateral for the lending bank quoted shares in the already long successful enterprise. The lending bank creates a collar option around the current market price of the shares providing a put option on the bank 10% below current price which floors the borrower's loss if the project fails and a call option at 14% above current price which provides limited upside potential for the lender if the project succeeds. Candidates were asked to critically evaluate the attractions and drawbacks of this arrangement for both the borrower and the lender. There was a distinctly bi-modal response to this question – candidates either got it or they didn't. Eight passed with an average mark of 65%, the average mark for the remainder being 18% - nobody scored between 48% and 60%.

Question 7 A 2-part question about waiving existing policy to postpone an interest rate hedge on a new loan in the expectation of continuing very low interest rates: the appropriateness of the waiver and, if actioned, how to monitor the unhedged risk.

This question has three dimensions: (i) a technical one about the economic equivalence of fixing interest rates now as policy dictates or doing so later as the yield curve shifts, (ii) monitoring the yield curve and decision rules for managing the open position; (iii) the appropriateness/probity of the finance director's action in requesting a waiver. Generally, it was sensibly answered, with twelve candidates passing, averaging 64%. However, the approaches adopted varied – in some instances dramatically. At one extreme, some candidates suggested continuous monitoring of the swap rate for the remaining life of the loan, fixing when this rate exceeded the initial 7-year rate. At the other extreme, a few candidates noticed that in fact at the start of the new loan, the company's interest rate mix was floating/fixed 50/50: thus the question *should* be is a new statement of policy required based on a mix of rates rather than all fixed. And 'though most candidates assumed that the finance director was behaving speculatively, a few stated that it was appropriate to regularly challenge the status quo. Overall a consciousness among a majority of candidates that this was perhaps a deceptively simple question.