LEADING TREASURY PROFESSIONALS

Examination Papers, Solutions and Examiner's Reports

Paper: MCT Case study exam
Paper: MCT General exam

April 2013

ACT LEADING TREASURY PROFESSIONALS

The Association of Corporate Treasurers

Examination Paper, Solutions and Examiners Report

MCT ADVANCED DIPLOMA CASE STUDY EXAMINATION

April 2013

This exam is based on the Case Study 'Cognova'

QUESTION 1

All the valuation multiples for the company have fallen considerably since 2008. As an illustration you have selected P/E and EV/EBITDA ratios for Cognova and for various sector and peer group comparables.

P/E Ratios	2007	2008	2009	2010	2011	2012
Cognova plc	14.0	14.0	11.6	13.1	8.2	8.8
UK defence & aerospace sector	18.1	19.2	8.2	13.8	12.1	12.8
European defence average	15.5	14.0	9.6	10.4	10.0	8.8
Total UK stock market	10.5	8.0	3.4	7.1	7.8	8.3

EV/EBITDA Ratios	2007	2008	2009	2010	2011	2012
Cognova plc	13.2	13.9	8.8	8.6	8.2	8.7
7-company European peer group	11.2	11.4	7.8	8.8	9.3	8.0

Required:

a) Identify the main positive and negative non-financial factors relating to the company, its strategy, the sector and the business environment that are important for the profits and the valuation of the company.

(8 marks)

b) Quantify the relative decline in Cognova's valuation multiples (not its share price). Summarise the most important valuation drivers and explain how they impact the multiples.

(4 marks)

(Total 12 marks)

QUESTION 2

Required:

Summarise the main changes in the financial structure and performance of the company since 2010 and say what factors you think have been driving those changes.

(10 marks)

QUESTION 3

Required:

a) **Cognova plc has three Divisions: UK Services, US Services and Global Products. Firstly, how would you characterise each Division in terms of its business and financial features. Secondly, how do you see the revenue and profit contribution of the three divisions developing over the next five years?**

(8 marks)

b) **Given your analysis of the company's financials and non-financials and your response to 3a), what in your opinion are the five most important treasury/finance issues confronting Cognova plc at Group level in the medium term? Briefly justify your choice.**

(5 marks)

(Total 13 marks)

QUESTION 4

The level and detailed pattern of cash flows has fluctuated considerably over the last few years, so much so that one equity research house argues against using DCF methods of valuation for the company.

Required:

a) **Give your estimate of the level of sustainable cash flow for 2013, setting out your calculations, assumptions and reasoning for all the key cash flow items.**

(8 marks)

b) **Based on your figure for sustainable cash flow, what value would you put on the total business (EV) at March 2012, assuming a WACC of 7%. What do you conclude from the fact that the actual EV on that date was £1,148m, (based on the share price of 153 pence and 660.47 million shares)?**

(4 marks)

(Total 12 marks)

QUESTION 5

Questions 5 and 6 relate to the setting of a revised financial strategy for the company.

Required:

In light of your financial and non-financial analysis of the company, recommend a policy gearing level for the company going forward, fully supported by your analysis and arguments. What are the main practical implications of your recommendations for management of debt and equity going forward?

(12 marks)

QUESTION 6

Required:

Set out all the considerations relevant to the setting of a dividend policy for the company and make recommendations as to the total dividends per share for 2013 and thereafter, having regard to the company's dividend history and your recommendations in Question 5.

(12 marks)

QUESTION 7

During Phase One of the Renewal Programme treasury has been largely focussed on debt reduction and getting the legacy pension scheme under control.

Phase Two – Core, Explore, Test – is about Cognova learning how to capitalise on existing know-how to drive organic growth. This means identifying commercial opportunities covering the thousands of projects in hand and evaluating their viability in order to invest, divest, trade through the problems or close, ie "testing for value."

The policy is to "target the best point at which to crystallise value from technologies – through selling patents or retaining intellectual Property Rights, but outsourcing manufacture to reduce overheads and risk."

Required:

a) Given the above and your views about the major treasury/financial issues confronting the company and the medium term prospects for the three Divisions, what functions do you expect to see developing in Cognova's treasury?

(6 marks)

b) How would you organise the treasury function (i) in terms of specific roles and structure and (ii) in terms of overall organisation profile, eg role, authority, response to risk, and type of organisation structure?

(6 marks)

All three businesses are primarily engaged in consultancy projects but currently treasury is not directly engaged in the bidding process for these contracts.

c) Contract bidding can give rise to significant financial risks. What are these risks? What role should treasury seek to adopt in relation to their management?

(5 marks)

(Total 17 marks)

QUESTION 8

Cognova inherited a defined benefit pension scheme when it was created in 2001. As part of a restructuring/downsizing in 2008, scheme size and net liabilities have already been substantially reduced in negotiation with the Trustees as a basis for securing the survival of the business.

The current net pension fund liability under IAS39, after deducting deferred tax, is circa £100m, with market value of assets £1bn and present value of scheme liabilities £1.15bn.

The scheme is closed to new entrants, excepting entrants from the UK Government's public sector "protected schemes."

The scheme is open to future accruals, but there is an RPI inflation cap, Career Average Rate Pension calibration has been introduced instead of final salary and there is a Normal Retiring Age of 65 in line with the private sector.

The trustees have access to the best advisors.

Management's view is that the current scheme has again become unsustainable in terms of size and potential volatility. They believe that it is in the interests of both scheme members and the company to seek further significant reforms. By reducing the deficit and stabilising performance the scheme becomes more affordable and improves the likelihood of benefits being paid in the long run.

Required:

As a starting point, what suggestions would the company place on the table as an initial basis for negotiation with the Trustees about reducing the deficit and de-risking the dfb scheme, for the benefit of both the company and of scheme members?

(12 marks)

MCT ADVANCED DIPLOMA
CASE STUDY
BACKGROUND INFORMATION

Based on Cognova plc

April 2013

1.0 INTRODUCTION

1.1 Group Overview

Cognova plc is an international defence and security company which provides technology-based products and services to government and commercial customers. Summary financials are shown below.

Summary Financials	2011 £m	2012 £m
Turnover	1,703	1,470
EBIT	57	375
PAT	5	258
Gross Debt	375	249
Net Debt	272	132
Shareholders' Funds	458	599
Average Market Cap.	759	840

The company originated in 2001, bringing together academic and government based research interests. It was partnered by a private equity house in 2003 and embarked on a series of acquisitions with the objective of growing sales and profits on the back of the well-established UK and US Government defence business. It was floated on the London market in 2006 and now has over 10,000 employees.

1.2 Divisions

Quoting the Annual Report and Accounts:

"The Group operates three divisions: UK Services, US Services and Global Products; this enables us to leverage our expertise, technology, customer relationships and business development skills effectively.

Our Services businesses, which account for more than 75% of total sales, are focused on providing expertise and knowledge in national markets. Our Products business focuses on the provision of product-based solutions to meet customer requirements, complemented by contract-funded research and development on a global basis."

Revenue by business £m

	2012 £m	2011 £m
UK Services	**610.1**	652.7
US Services	**534.5**	607.3
Global Products	**325.0**	442.6
Total	**1,469.6**	1,702.6

Underlying operating profit by business £m

	2012 £m	2011 £m
UK Services	**63.0**	47.4
US Services	**32.1**	45.9
Global Products	**66.2**	52.1
Total	**161.3**	145.4

Revenue by major customer type £m

	2012 £m	2011 £m
UK Government	**482.8**	526.5
US Government	**730.5**	894.3
Other	**256.3**	281.8
Total	**1,469.6**	1,702.6

Revenue by geography £m

	2012 £m	2011 £m
United Kingdom	**570.1**	623.7
North America	**788.7**	949.2
Other	**110.8**	129.7
Total	**1,469.6**	1,702.6

Revenue by category £m

	2012 £m	2011 £m
Sale of goods	**253.2**	365.5
Services	**1,209.4**	1,330.0
Royalties	**7.0**	7.1
Total	**1,469.6**	1,702.6

Employees by Division

Employees	**2012**	2011
UK Services	**5,157**	5,337
US Services	**3,940**	4,686
Global Products	**1,083**	1,185
Total	**10,180**	11,208

2.0 BUSINESS PROFILE & ANALYSIS

2.1 Consolidation and "Renewal Programme"

In the years leading up to the start of the financial crisis in 2007 Cognova plc had benefitted from the ever-growing defence spend.

However, with a background mainly in the public sector it was ill-equipped to cope with the financial crisis. It had not taken the necessary measures to establish the company as a commercial enterprise.

By 2009, following the expansive acquisition programme and a drive for growth, often at the expense of profitability, Cognova plc appeared to have lost direction, had seen the cost base expand and the balance sheet become stretched. There were two profit warnings in 2009. A new Chief Executive was appointed who rebuilt the senior management team. In 2010 the new team committed to a 24 month "Renewal Programme" to transform the culture, to focus on the direction of the business by instilling commercial rigour and to strengthen the balance sheet by introducing greater financial rigour.

The benefits of the Renewal Programme are now being seen with a significantly restructured cost base, a balance sheet close to net cash, the restoration of the dividend and a shift to a more selective, focused portfolio of products and businesses.

2.2 Business Model

At the 2012 Prelims management announced the launch of phase two of the Renewal Programme: "Core – Explore – Test". This is the new business model, focused on actively managing the business portfolio to drive organic growth:

- **Maximize the core** (90% of revenues) - continue to grow those businesses that already have scale, defensible positions and sustainable strong returns.

- **Scale the explore** (8% of revenues) for those smaller businesses with defined customer bases, look to how to take them to being >£100m sales businesses. The choice is invest or divest.

- **Test for value** (2% of revenues) for those smaller technology focused businesses that continue to be funded by customers or with interesting but, as yet, not commercialised technology, there are really just four choices: 1) invest 2) divest 3) trade through the problems or 4) close.

Cognova plc will build out its core into a leading technology-based solutions Group, applying the innovation and capabilities of its people across a number of market sectors.

This will enable mature core businesses to win market share and explore adjacent markets, while nurturing a small number of newer capabilities to determine whether their business models are sufficiently robust to deliver significant growth. Each new opportunity which emerges will be managed through a disciplined process to identify and expand those which can generate sustainable returns and crystallise early value within Cognova plc from those which cannot. The group will target the best point at which to crystallise value from its technologies – through selling patents or retaining Intellectual Property Rights, but outsourcing manufacture to reduce overheads and risk.

2.3 Structure

UK Services has a 25 year long-term partnership agreement with the UK Government, dating from 2008, to help manage various defence sites around the country. This involves the testing and evaluation of equipment and the training of personnel in its use.

The research which UK Services undertakes is entirely funded by third parties and is in many cases Government related.

Consequently the UK Government exercises a degree of control over the exploitation of the companies Intellectual Property Rights.

Similarly motivated elements of government control also apply to the activities of US Services which provides defence related services to the US Government. In this case, US Services must not act in any way which could be interpreted by the US government as evidencing control by a non-US party. This creates a significant barrier to achieving conventional synergies in international treasury such as cash management.

In contrast, Global Products is a potentially global business exploiting the Group's technology internationally.

2.4 A Summary from the Chief Executive

"We have very strong core businesses which account for around 90% of our revenue. Most of them fall within our UK and US services divisions – where our people's technological know-how helps create deep customer relationships.

The profits and cash flows of these businesses are relatively stable. The challenge is that many of these businesses operate in the defence market that is facing severe budgetary pressures. Our first task, therefore, is to retain our market share and then to use our strength to grow further."

"Short-term growth should come from gaining market share in our core businesses when defence budgets stabilise."

"In the medium to long term we rely on the "value pipeline" of new offerings at various stages of development or business readiness. Some will eventually graduate to join our core businesses, others may not prove to be economically

viable. We are not short of innovation: for us the challenge is to find ways to turn 'raw' know-how and technology into commercial businesses. For sucessful developments there are a number of different "routes to market."

"The challenge is to diversify our portfolio by finding new sectors in which to apply our innovation and expertise. By using a rigorous combination of selective investments, partnerships and, where appropriate, selective acquisitions we can achieve our medium-term growth ambitions."

3.0 COMPETITION

3.1 Competition

There is limited competition for Cognova due to significant barriers to entry, greater than seen in many other industries. This trusted partner position does not exist for the products business.

There is no other single company in the UK that has equal capabilities to Cognova across the full range of the military to provide advice, and to test and evaluate their equipment. In the UK serious competition is limited to only one other company but in the US there is competition from three companies; SAIC, CACI and Mantech.

Equity analysts will often include quite a diverse selection of UK, European and US companies which are broadly in the “defence sector”, which may be relevant for investment risk purposes, but which Cognova do not regard as main-stream competition.

4.0 FINANCE AND TREASURY

4.1 Background

Cognova had its origins in the Government sector. When it was established, staff who transferred took with them their pension entitlements. This meant maintaining "broad compatibility" with their original peer group, eg non-contributory, final salary, inflation indexed, defined benefit scheme, retirement age of 60 years, with a lump sum cash payment in addition to the full pension entitlement.

This arrangement was unsustainable and in 2008, following protracted negotiations, the scheme was closed to new members from any source, excepting those in the public sector "protected schemes", eg military personnel. The scheme was amended to Career Average Rate rather than Final Salary and inflation capped. The Normal Retirement Age was raised to 65 in line with private sector schemes. However the Scheme remained open to future accrual. The Principal Employer was defined as UK Services, so there was no protection from the US group.

These amendments to the pension scheme were implemented in conjunction with a significant reduction in head-count, both designed to improve the sustainability of the company.

4.2 Treasury

The Treasurer was appointed in 2010. Priorities since then have been on retiring/restructuring the firm's long term debt as the balance sheet strengthened and currently on further renegotiating the terms of the legacy defined benefit pension scheme.

Currently the Treasurer's time is spent 25% on conventional treasury issues, 60% on pensions and 15% on insurance. The insurance is largely in relation to the UK sites managed on behalf of the Government. There is a Cognova captive insurance company to pick up a limited amount of loss and third party insurance to pick up extreme amounts.

Because of Government involvement in the two Services divisions there has been very limited opportunity for Treasury to add value. However the future succesfully "scaled-up" businesses which don't fit into either of the Service divisions will not be similarly constrained.

To date Treasury has not been directly involved in the bidding process, despite the fact that the Group overall may have as many as 3000 projects in progress at any time. As these are completed, they are replenished by new successful bids. These may involve bid bonds and performance bonds, sometimes as a retaliatory response to Cognova's request for a letter of credit to hedge the buyer's counterparty risk.

4.3 Recent Earnings

In four of the last five years earnings have been seriously impacted by a variety of exceptional items, both positive and negative. A summary reconciling underlying profit with reported profit attributable to equity shareholders is given below.

	2012	2011	2010	2009
Underlying profit for equity shareholders	94.8	92.8	72.8	103
Impairments amortisations, reorganisation costs, etc.	(72.1)	(90.7)	(156.9)	(29.2)
Restructuring recoveries and gains on disposals	235.2	2.9	20.8	19.3
Reported profit attributable to equity shareholders	257.9	5.0	(63.3)	93.6

NB Exceptional items are expected to be insignificant from 2013 onwards.

KPIs cover: lost time injury rate, employee engagement, customer satisfaction, underlying eps, organic revenue growth, underlying operating profit, underlying operating margin, underlying operation cash conversion ratio and gearing ratio.

4.4 Details of Net Debt

	2012			2011		
all figures in £ million	Assets	Liabilities	Net	Assets	Liabilities	Net
Current financial assets/(liabilities)						
US$ private placement notes – 5.44%	–	–	–	–	(94.3)	(94.3)
US$ private placement notes – 7.13%	–	(15.9)	(15.9)	–	–	–
US$ private placement notes – 7.62%	–	(67.3)	(67.3)	–	–	–
Bank overdraft	–	–	–	–	(0.3)	(0.3)
Deferred financing costs	–	0.6	0.6	–	0.6	0.6
Bank borrowings	–	(82.6)	(82.6)	–	(94.0)	(94.0)
Derivative financial instruments	0.1	(0.1)	–	–	(0.4)	(0.4)
Finance lease debtor/(creditor)	2.3	(2.2)	0.1	3.0	(2.8)	0.2
Total current financial assets/(liabilities)	**2.4**	**(84.9)**	**(82.5)**	**3.0**	**(97.2)**	**(94.2)**
Non-current assets/(liabilities)						
US$ private placement notes – 7.13%	–	(26.6)	(26.6)	–	(39.6)	(39.6)
US$ private placement notes – 5.50%	–	(30.4)	(30.4)	–	(78.9)	(78.9)
US$ private placement notes – 7.62%	–	(102.0)	(102.0)	–	(152.7)	(152.7)
Deferred financing costs	–	1.0	1.0	–	1.7	1.7
Bank borrowings	–	(158.0)	(158.0)	–	(269.5)	(269.5)
Derivative financial instruments	0.1	–	0.1	–	–	–
Finance lease debtor/(creditor)	6.8	(6.4)	0.4	8.2	(7.9)	0.3
Total non-current financial assets/(liabilities)	**6.9**	**(164.4)**	**(157.5)**	**8.2**	**(277.4)**	**(269.2)**
Cash	46.2	–	46.2	58.3	–	58.3
Cash equivalents	71.6	–	71.6	44.2	–	44.2
Total cash and cash equivalents	**117.8**	**–**	**117.8**	**102.5**	**–**	**102.5**
Total net debt as defined by the Group			**(122.2)**			**(260.9)**

4.5 Latest Share Prices and Prospects

At March 2012 the price was 153p. In the six months since that financial year-end the share price has touched 200 pence. Analysts' target prices for end 2013 range from 145p to 230p, mean 185p.

Analyst Estimates of Sales & Earnings	2013	2014
	low/average/high	low/average/high
Sales (bn)	1.33/1.39/1.42	1.30/1.37/1.46
Earnings/share (p)	14.30/16.77/18.72	12.70/14.69/15.84
EBITA (m)	145/151/161	129/137/147

4.6 Comparative Multiples

A recent analyst's summary of global defence-related sector historic P/Es for 2012 gave Cognova at 11.3, the pan-European average at 11.6, the defence-biased Euro average at 11.3, the UK average at 11.6, the US average at 12.9 and the US defence-biased average at 10.8.

4.7 Historical Growth Ratio – Peer Group

Historically organic growth rates for the defence activities of four major players have declined from 8% in 2008 to zero in 2012, but with a 2012 range of plus 8% to minus 4%.

5.0 FINANCIALS

Equity Analysis Model
Cognova Plc
Income Statement

Equity Analysis Model

Cognova plc

Income Statement

		Historical Data					
Month	*Accounts date*	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
March	*Currency / units*	**£mill**	**£mill**	**£mill**	**£mill**	**£mill**	**£mill**
	Audit / man / fcst	**audited**	**audited**	**audited**	**audited**	**audited**	**audited**
	Number of months	**12**	**12**	**12**	**12**	**12**	**12**
Sales Revenue		**1,149.5**	**1,366.0**	**1,617.3**	**1,625.4**	**1,702.6**	**1,469.6**
Operating Expenditure							
b	(Personnel Costs)	(513.4)	(608.8)	(673.8)	(722.7)	(766.1)	(649.8)
b	(Depreciation & Impairment of Tangible Assets)	(31.7)	(33.0)	(33.5)	(59.1)	(39.5)	(32.5)
b	(Amortisation of Intangibles excluding Goodwill)	(15.4)	(23.0)	(32.4)	(90.8)	(37.8)	(29.3)
b	(R&D Costs)						
b	Other Operating (Costs) & Revenues	(495.6)	(592.2)	(749.5)	(736.0)	(713.8)	(596.7)
b	Exceptionals etc. +/-		(32.6)		(42.1)	(90.7)	201.7
Operating Profit		**93.4**	**76.4**	**128.1**	**(25.3)**	**54.7**	**363.0**
Non-operating Income & Expenditure							
	Exceptionals etc.	7.9	(7.0)	7.3	(6.2)	2.7	11.6
	(Amortisation & Impairment of Goodwill)						
Financial Income							
	Income from Investments, Participations etc						
EBIT		**101.3**	**69.4**	**135.4**	**(31.5)**	**57.4**	**374.6**
Interest Received & Paid							
	Other Financial Income & Expenditure	1.7	0.9	3.5	(2.8)	8.1	4.9
	Interest Received	2.1	1.7	1.0	0.4	0.6	1.3
	(Gross Interest Paid)	(15.8)	(20.6)	(25.9)	(32.2)	(39.5)	(49.2)
Profit before Tax		**89.3**	**51.4**	**114.0**	**(66.1)**	**26.6**	**331.6**
	(Tax charge)	(20.3)	(4.0)	(20.4)	2.8	(21.6)	(73.7)
Profit after Tax		**69.0**	**47.4**	**93.6**	**(63.3)**	**5.0**	**257.9**
	Extraordinaries, Discontinued Operations etc						
	Minority Interests						
	(Preference Dividends)						
Net Income / Earnings for Ordinary Shareholders		**69.0**	**47.4**	**93.6**	**(63.3)**	**5.0**	**257.9**
	(Ordinary Dividends)	(24.1)	(28.0)	(31.1)	(4.8)	(10.5)	(18.8)
Retained Profit for Year		**44.9**	**19.4**	**62.5**	**(68.1)**	**(5.5)**	**239.1**
	Statement of Gains and Losses						
Income after gains and Losses		69.0	47.4	93.6	(63.3)	5.0	257.9

EBITA (before exceptionals & Goodwill Amort.)	**93.4**	**109.0**	**128.1**	**16.8**	**145.4**	**161.3**
EBITDA (before Exceps. Deprn, & all Amortisn.)	**140.5**	**165.0**	**194.0**	**166.7**	**222.7**	**223.1**
Cash Earnings (Before Goodwill, Exceps.& Extraords)	**61.1**	**87.0**	**86.3**	**(15.0)**	**93.0**	**44.6**
Cash Retained Profit (Before Goodwill, Exceps & Extraords)	**37.0**	**59.0**	**55.2**	**(19.8)**	**82.5**	**25.8**

Equity Analysis Model
Cognova Plc
Balance Sheet

Equity Analysis Model

Cognova plc

Balance Sheet

	Historical Data					
Accounts date	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Currency / units	**£mill**	**£mill**	**£mill**	**£mill**	**£mill**	**£mill**
Intangible Fixed Assets	438.0	546.5	802.7	721.4	624.3	591.1
Property, Land & Buildings, Forestry Assets - net	260.7	252.2	237.7	209.0	195.5	186.2
Other Fixed Assets - net	80.8	80.2	94.7	76.5	65.4	60.4
Financial Investments, Tax & Pension Assets & Deriva	58.6	39.3	28.0	44.4	47.9	29.7
Medium-term Trade-related Assets						
Total Fixed Assets	**838.1**	**918.2**	**1,163.1**	**1,051.3**	**933.1**	**867.4**
Stocks, Inventories, Work in Progress	39.5	56.9	68.3	79.8	45.4	31.2
Debtors, Prepayments, Receivables etc.	401.2	469.0	532.9	423.8	389.5	404.8
Other financial assets & investments	8.0	8.7	3.7	10.1	5.3	3.5
Cash and Short-term Investments	20.0	24.5	262.1	63.9	102.5	117.8
Tax Assets, Derivatives, Assets for Sale & Other	1.8	4.8	10.4	5.1	7.5	5.1
Total Current Assets	**470.5**	**563.9**	**877.4**	**582.7**	**550.2**	**562.4**
Total Assets	**1,308.6**	**1,482.1**	**2,040.5**	**1,634.0**	**1,483.3**	**1,429.8**
Short-term Debt	15.9	11.8	22.1	8.9	97.2	84.9
Creditors, Accruals, Advance Payments etc.	340.0	374.4	447.2	396.4	465.6	498.7
Corporation Tax Payable	6.9			7.5	4.2	13.7
Provisions, Derivatives & Other Current Liabilities	1.1	31.8	4.3	16.1	20.4	3.4
Total Current Liabilities	**363.9**	**418.0**	**473.6**	**428.9**	**587.4**	**600.7**
Medium & Long-term Debt	327.7	415.3	792.6	530.2	277.4	164.4
Medium-term Trade-related Liabilities	5.5	47.7	48.7	35.2	23.8	20.6
Deferred Tax, Pension & Other Long-term Provisions	134.1	68.1	122.9	166.0	137.2	44.7
Total Non-current Liabilities	**467.3**	**531.1**	**964.2**	**731.4**	**438.4**	**229.7**
Issued Share Capital	6.6	6.6	6.6	6.6	6.6	6.6
Share Premium Account, Treasury Shares	147.6	147.6	147.6	147.6	147.6	147.6
Revaluation Reserve						
Other Reserves	26.8	18.6	79.7	82.2	61.7	59.7
Retained Earnings / Profit and Loss	296.3	360.1	368.7	237.2	241.5	385.4
Total Capital and Reserves	**477.3**	**532.9**	**602.6**	**473.6**	**457.4**	**599.3**
Minority Interests	0.1	0.1	0.1	0.1	0.1	0.1
Total Shareholders' Funds	**477.4**	**533.0**	**602.7**	**473.7**	**457.5**	**599.4**
Accumulated depreciation	124.5	153.9	193.3	241.8	256.3	281.8

Equity Analysis Model
Cognova Plc
UK-Style Cash Flow Statement

Equity Analysis Model						
Cognova plc						
UK-Style Cash Flow Statement	**Explanatory note**					
			Historical Data			
Accounts date	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Currency / units	**£mill**	**£mill**	**£mill**	**£mill**	**£mill**	**£mill**
Number of months		**12**	**12**	**12**	**12**	**12**
CASH FLOW FROM OPERATING ACTIVITIES						
Operating Profit	93.4	76.4	128.1	(25.3)	54.7	363.0
Tangible Asset Depreciation	31.7	33.0	33.5	59.1	39.5	32.5
Dec(Inc) in Stock / Inventories	(15.5)	(17.3)	(2.9)	(13.1)	(5.1)	12.1
Dec(Inc) in Debtors / Receivables	(33.9)	(49.0)	4.4	89.9	45.6	1.2
Inc(Dec) in Creditors / Payables & Advance Payments	27.0	36.7	5.1	(29.9)	64.7	30.3
All other non-cash adjustments & Exceptionals	4.3	58.5	7.0	88.5	56.4	(197.2)
Cash Generated from Operations	**107.0**	**138.3**	**175.2**	**169.2**	**255.8**	**241.9**
Dividends Received from Associates						
Tax Paid	(3.3)	(17.7)	(2.5)	1.5	(42.9)	(23.3)
Net Cash from Operating Activities	**103.7**	**120.6**	**172.7**	**170.7**	**212.9**	**218.6**
CASH FLOW FROM INVESTING ACTIVITIES						
Dividends Received from Investments						
Interest Received	4.2	1.7	1.0	0.4	0.3	1.0
(Purchase of Tangible Fixed Assets)	(34.8)	(23.7)	(30.3)	(24.8)	(19.7)	(22.0)
Disposal of Tangible Fixed Assets	8.6	14.9			0.3	7.3
(Purchase of Subs, Intang., Financial & Forestry Asse	(158.7)	(135.9)	(102.0)	(53.6)	(18.2)	(1.6)
Disposal of Subsidiaries, Intangibles & Financial Assets	20.8		24.6	21.8	38.2	14.8
Net Cash from Investing Activities	**(159.9)**	**(143.0)**	**(106.7)**	**(56.2)**	**0.9**	**(0.5)**
CASH FLOW FROM FINANCING ACTIVITIES						
(Total Interest Paid)	(13.8)	(20.0)	(21.3)	(36.8)	(28.9)	(39.5)
New Shares Issued						
(Repurchase / Redemption of Shares)		(12.8)	(0.8)	(0.8)	(0.6)	(12.0)
(Costs of Issuing / Redeeming Equity)						
Total Increase in Debt	136.1	91.1	226.7	3.0	7.9	3.0
(Total Decrease in Debt)	(86.5)	(3.3)	(3.3)	(234.9)	(146.9)	(136.4)
(Dividends Paid on Ordinary Shares)	(22.7)	(24.9)	(28.9)	(31.6)	-	(16.4)
(Preference and Minority Dividends Paid)						
Miscell. Financing Costs e.g. derivatives, bank fees	(2.4)	(0.5)	(1.5)	(14.3)	(2.4)	(1.6)
Net Cash from Financing Activities	**10.7**	**29.6**	**170.9**	**(315.4)**	**(170.9)**	**(202.9)**
Net Cash Flow from Ops. Investing & Funding	(45.5)	7.2	236.9	(200.9)	42.9	15.2

Equity Analysis Model
Cognova Plc
Share Price Data

Equity Analysis Model

Cognova plc

Share Price Data

	Historical Data					
Accounts date	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Currency / units	**£mill**	**£mill**	**£mill**	**£mill**	**£mill**	**£mill**
	12	**12**	**12**	**12**	**12**	**12**
Number of Shares & Eps						
Basic Earnings per Share (pence or equivalent)	10.51	7.22	14.30	(9.70)	0.80	39.60
Underlying Earnings per Share (pence or equivalent)	**11.29**	**13.41**	**15.90**	**11.10**	**14.20**	**14.60**
Interim Dividend Per Share	1.20	1.33	1.50	1.58		0.90
Final Dividend Per Share	2.45	2.92	3.25		1.60	2.00
Total Dividends Per Share (pence or equivalent)	**3.65**	**4.25**	**4.75**	**1.58**	**1.60**	**2.90**
Average number of common shares	656.6	656.2	652.7	653.5	654.6	654.5
Average number of preference shares						
Share Prices						
Common Share Price - Low (pounds or equivalent)	0.94	1.61	1.23	1.21	0.96	0.97
Common Share Price - High (pounds or equivalent)	2.22	2.14	2.44	1.69	1.36	1.60
Common Share Price - Average	1.58	1.87	1.84	1.45	1.16	1.28
Preference Share Price - Low (pounds or equivalent)						
Preference Share Price - High (pounds or equivalent)						
Preference Share Price - Average						
Risk rating						
Variability %	20	20	24	27	26	26
Beta (actual or estimate)	1.14	0.99	0.89	0.75	0.76	0.69
Assumed Market Risk premium	**4.50**	**4.50**	**4.50**	**4.50**	**4.50**	**4.50**
UK 10-year Gilt Yield	**5.52**	**5.04**	**3.69**	**3.38**	**3.13**	**1.72**
LIBOR or equivalent	5.32	5.89	2.71	0.61	0.76	0.76
Market Capitalisation						
Market Capitalisation - Common Stock	1,036	1,230	1,199	948	759	840
Market Capitalisation - Preference Stock	-	-	-	-	-	-
Market Capitalisation - Total	1,036	1,230	1,199	948	759	840
Minorities	0	0	0	0	0	0
Net Debt	324	403	553	475	272	132
Enterprise value [EV]	**1,360**	**1,632**	**1,751**	**1,423**	**1,032**	**971**

Equity Analysis

Equity Ratios						
Eps Growth %		18.8%	18.6%	(30.2%)	27.9%	2.8%
P/E Ratio	14.0	14.0	11.6	13.1	8.2	8.8
Market / Book Ratio of Equity	2.17	2.31	1.99	2.00	1.66	1.40
Dividend Cover	3.1	3.2	3.3	7.0	8.9	5.0
Dividend Yield %	2.3%	2.3%	2.6%	1.1%	1.4%	2.3%
Total Return to Shareholders %		21.4%	0.5%	(20.2%)	(18.9%)	13.1%
EV Valuation Multiples						
EV / Sales	1.18	1.20	1.08	0.88	0.61	0.66
EV / Book Capital Employed	1.70	1.74	1.52	1.50	1.41	1.33
EV / EBITA	14.6	15.0	13.7	84.7	7.1	6.0
EV / EBITDA	9.68	9.89	9.03	8.54	4.63	4.35
EV / Staff Costs	2.6	2.7	2.6	2.0	1.3	1.5

Equity Analysis Model
Cognova Plc
Cash Flow Analysis

Equity Analysis Model						
Cognova plc						
Cash Flow Analysis						
				Historical Data		
Accounts date	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Currency / units	**£mill**	**£mill**	**£mill**	**£mill**	**£mill**	**£mill**
Cash Flow Summary	**audited**	**audited**	**audited**	**audited**	**audited**	**audited**
Number of months	**12**	**12**	**12**	**12**	**12**	**12**
CASH FLOW FROM OPERATIONS						
Operating Profit	93	76	128	(25)	55	363
Other Non-cash & Exceptional Items	2	58	5	74	54	(199)
Investment Income						
"Cash Profit"	**95**	**134**	**134**	**49**	**109**	**164**
(Increase) / Decrease in Net Working Assets	(22)	(30)	7	47	105	44
Tangible Asset Depreciation	32	33	34	59	40	33
Net Capital Expenditure	(26)	(9)	(30)	(25)	(19)	(15)
(Tax Paid	(3)	(18)	(3)	2	(43)	(23)
(Dividends Paid)	(23)	(25)	(29)	(32)		(16)
Free Cash Flow before Interest	**52**	**86**	**112**	**100**	**191**	**186**
(Net Interest Paid)	(10)	(18)	(20)	(36)	(29)	(39)
Internal Cash Flow	**43**	**68**	**92**	**64**	**163**	**147**
ACQUISITION & FINANCING CASH FLOWS						
(Acquisitions),Disposals,(Investments)	(138)	(136)	(77)	(32)	20	13
Increase / (Decrease) in Share Capital		(13)	(1)	(1)	(1)	(12)
Increase / (Decrease) in Debt	95	85	224	(229)	(143)	(133)
(Increase) / Decrease in Cash		(5)	(238)	198	(39)	(15)
Net Financing Cash Flow	**(43)**	**(68)**	**(92)**	**(64)**	**(163)**	**(147)**

Equity Analysis Model
Cognova Plc
Financial Profile

Equity Analysis Model

Cognova plc

Financial Profile

	Historical Data					
Accounts date	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Number of months	***12***	***12***	***12***	***12***	***12***	***12***
Annual % Growth Rates						
Sales Growth		18.8%	18.4%	0.5%	4.7%	(13.7%)
Margins and Cost Structure						
Personnel Costs % Sales	(44.7%)	(44.6%)	(41.7%)	(44.5%)	(45.0%)	(44.2%)
Depreciation % Amortisation % Sales	(4.1%)	(4.1%)	(4.1%)	(9.2%)	(4.5%)	(4.2%)
Other Operating Costs & Revenues % Sales	(43.1%)	(43.4%)	(46.3%)	(45.3%)	(41.9%)	(40.6%)
Total Exceptional Items & Goodwill Amort.% Sales (+/-)	0.7%	(2.9%)	0.5%	(3.0%)	(5.2%)	14.5%
EBIT % Sales	8.8%	5.1%	8.4%	(1.9%)	3.4%	25.5%
Profitability / Return on Capital Employed						
EBITA % Capital Employed (pre-exceptionals)	11.7%	11.7%	11.1%	1.8%	19.9%	22.1%
Pre-tax Target Rate of Return 0n Book Value	22.8%	21.6%	15.5%	12.6%	11.8%	8.9%
EBITA % Market Enterprise Value	6.9%	6.7%	7.3%	1.2%	14.1%	16.6%
Pre-tax Target Rate of Return on Market Value	13.4%	12.4%	10.2%	8.4%	8.4%	6.7%
Asset Utilisation / Capital Intensity						
Sales / Total Assets	0.88	0.92	0.79	0.99	1.15	1.03
Stocks % Sales	3.4%	4.2%	4.2%	4.9%	2.7%	2.1%
Debtors % Sales	34.9%	34.3%	32.9%	26.1%	22.9%	27.5%
Creditors & Advance Payments % Sales	30.1%	30.9%	30.7%	26.6%	28.7%	35.3%
Net Working Assets % Sales	8.3%	7.6%	6.5%	4.4%	(3.2%)	(5.7%)
Tangible Fixed Assets % Sales	30%	24%	21%	18%	15%	17%
Depreciable Assets % Sales	7%	6%	6%	5%	4%	4%
Net Capex % Annual Depreciation	83%	27%	90%	42%	49%	45%
Average Age of Depreciable Assets (years)	3.9	4.7	5.8	4.1	6.5	8.7
Tax Ratios						
Effective Interest Rate [P&L] %	4.6%	5.3%	4.2%	4.8%	8.6%	15.8%
Effective Tax Rate [P&L] %	22.7%	7.8%	17.9%	4.2%	81.2%	22.2%
Cash Tax Rate [Cash Flow] %	3.7%	34.4%	2.2%	2.3%	161.3%	7.0%

Capital Structure & Credit Status

Balance Sheet Gearing & Leverage						
Leverage: (Net Debt % Capital Employed)	40%	43%	48%	50%	37%	18%
Net Debt % Enterprise Value	24%	25%	32%	33%	26%	14%
Interest Cover Ratios						
Interest Cover: (EBITA / Net Interest Paid)	6.8	5.8	5.1	0.5	3.7	3.4
Interest Cover: (EBITDA / Net Interest Paid)	10.3	8.7	7.8	5.2	5.7	4.7
Cash Flow before Interest / Cash Net Interest	5.5	4.7	5.5	2.7	6.7	4.8
Income Leverage (Debt Repayment Ability)						
Gross Debt / Cash Retained Profit (years to repay)	9.3	7.2	14.8	oo	4.5	9.7
Net Debt / EBITDA	2.3	2.4	2.8	2.9	1.2	0.6

Equity Analysis Model

Cognova plc

Financial Profile

	Historical Data					
Accounts date	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Number of months	***12***	***12***	***12***	***12***	***12***	***12***
Annual % Growth Rates						
Sales Growth		18.8%	18.4%	0.5%	4.7%	(13.7%)
Margins and Cost Structure						
Personnel Costs % Sales	(44.7%)	(44.6%)	(41.7%)	(44.5%)	(45.0%)	(44.2%)
Depreciation % Amortisation % Sales	(4.1%)	(4.1%)	(4.1%)	(9.2%)	(4.5%)	(4.2%)
Other Operating Costs & Revenues % Sales	(43.1%)	(43.4%)	(46.3%)	(45.3%)	(41.9%)	(40.6%)
Total Exceptional Items & Goodwill Amort.% Sales (+/-)	0.7%	(2.9%)	0.5%	(3.0%)	(5.2%)	14.5%
EBIT % Sales	8.8%	5.1%	8.4%	(1.9%)	3.4%	25.5%
Profitability / Return on Capital Employed						
EBITA % Capital Employed (pre-exceptionals)	11.7%	11.7%	11.1%	1.8%	19.9%	22.1%
Pre-tax Target Rate of Return 0n Book Value	22.8%	21.6%	15.5%	12.6%	11.8%	8.9%
EBITA % Market Enterprise Value	6.9%	6.7%	7.3%	1.2%	14.1%	16.6%
Pre-tax Target Rate of Return on Market Value	13.4%	12.4%	10.2%	8.4%	8.4%	6.7%
Asset Utilisation / Capital Intensity						
Sales / Total Assets	0.88	0.92	0.79	0.99	1.15	1.03
Stocks % Sales	3.4%	4.2%	4.2%	4.9%	2.7%	2.1%
Debtors % Sales	34.9%	34.3%	32.9%	26.1%	22.9%	27.5%
Creditors & Advance Payments % Sales	30.1%	30.9%	30.7%	26.6%	28.7%	35.3%
Net Working Assets % Sales	8.3%	7.6%	6.5%	4.4%	(3.2%)	(5.7%)
Tangible Fixed Assets % Sales	30%	24%	21%	18%	15%	17%
Depreciable Assets % Sales	7%	6%	6%	5%	4%	4%
Net Capex % Annual Depreciation	83%	27%	90%	42%	49%	45%
Average Age of Depreciable Assets (years)	3.9	4.7	5.8	4.1	6.5	8.7
Tax Ratios						
Effective Interest Rate [P&L] %	4.6%	5.3%	4.2%	4.8%	8.6%	15.8%
Effective Tax Rate [P&L] %	22.7%	7.8%	17.9%	4.2%	81.2%	22.2%
Cash Tax Rate [Cash Flow] %	3.7%	34.4%	2.2%	2.3%	161.3%	7.0%

Capital Structure & Credit Status

Balance Sheet Gearing & Leverage						
Leverage: (Net Debt % Capital Employed)	40%	43%	48%	50%	37%	18%
Net Debt % Enterprise Value	24%	25%	32%	33%	26%	14%
Interest Cover Ratios						
Interest Cover: (EBITA / Net Interest Paid)	6.8	5.8	5.1	0.5	3.7	3.4
Interest Cover: (EBITDA / Net Interest Paid)	10.3	8.7	7.8	5.2	5.7	4.7
Cash Flow before Interest / Cash Net Interest	5.5	4.7	5.5	2.7	6.7	4.8
Income Leverage (Debt Repayment Ability)						
Gross Debt / Cash Retained Profit (years to repay)	9.3	7.2	14.8	oo	4.5	9.7
Net Debt / EBITDA	2.3	2.4	2.8	2.9	1.2	0.6

ADVANCE DIPLOMA

CASE STUDY EXAMINATION – NOTE FORM ANSWERS

QUESTION 1 **(21.6 mins, 12 marks)**

1 a) **(14.4 mins, 8 marks)**

(Marking scheme 8 marks so ⅓ mark for each good point)

Not necessarily equal numbers of positive and negative points;

Positive

- Limited competition because of [1] established, strong positions in UK and US defence industries and high [2] entry barriers
- £1,200 to £1,400 million core [3] government business (UK & US)
- 20.4% operating profit [4] margin on Global Products
- Undoubted technological expertise [5] and applied customer knowledge [6] – product-based solutions to customer requirements
- Attracts contract [7] funded research moneys
- Significant barriers to entry
- Research and development generates [8] future business opportunities
- Global Products Business potential for growth independent [9] of US and UK defence budgets
- Worldwide political uncertainty may underpin demand in the long run.

Negative

- World recession and after-effects of global financial crisis still a depressant to revenue [10] growth?
- US and UK defence [11] budgets particularly under pressure
- US defence budget faces particular political uncertainty under second [12] Obama administration
- US Services business low [13] margin (6.0%)

- US business must not be seen to be UK controlled – constraining [14] factor

- Big exceptionals indicate scale of [15] re-organisations and write-down (financial cost, management time, strategic re-positioning [16])

- Barriers to entry make it difficult to break into [17] new defence markets eg Europe, Australia, which are also smaller

- "Non-commercial", public sector culture [18] seems hard to shake off

- Market Life Cycle – generally mature, [19] stable/declining? markets

- "Stalemate" [20] market environment, potentially "volume market" if defence spending growth resumes

- In terms of Porters 5 Forces

Positive [21] high entry barriers, favourable competition dynamics
Low supplier power, neutral threat of new products because of own R&D programme

Negative [22] Very high buyer power

Porter conclusion: On balance one big negative balance [23], three positives and one neutral.

<u>Key to Value</u>

Profitability and steady growth, coherent strategy, management delivery on promises [24]

1 b) **(7.2 mins, 4 marks)**

Percentage changes in P/E ratios since 2007 [1]
Cognova – 37%
UK defence & aerospace sector – 29% [2]
European defence average – 43%
Total UK market – 21% [3]

Percentage changes in EV/EBITDA
Cognova – 34%
7-company European peer group – 29%

Cognova has generally [4] suffered to a similar degree as the sector. Worse than US, better [5] than Europe, much worse than the total UK stock market.

Higher multiples essentially reflect good growth [6] expectations and/or [7] lower risk.

Need to convince markets of viable, sustainable strategy [8] and management's ability to deliver growth in revenues profits and dividends.

Company floated in 2006 to great expectations of business growth, based on the strength of its extremely advanced technological knowledge – has proved much more difficult [9] than expected. Over-hyped by private equity partner? [10] So growth expectations revised downwards.

Company also struggling with transition from university/public sector mentality/culture [11] (bureaucratic rather than commercial) plus an associated high-cost base – depressed profit growth potential of profitable Global Products business.

Poor acquisitions [12] strategy and economic recession have meant big losses – exceptional losses – volatile and less predictable profit.

Sector always dependent on (UK and US) defence budgets – very much under pressure post [13] Iraq and with Afghanistan run down. Also background of austerity measures and economic recession, [14] post 2007. Growth and profit expectations revised downwards. Greater risk and [15] volatility overall.

QUESTION 2 **(18 mins, 10 marks)**

(Marking scheme - ⅓ mark for each good point)

<u>2010</u>

Two profit warnings in a few months. [1] Company loss making (31.5m [2] operating loss) but about 55m extra amortisation and 48m other exceptionals.
Dividends drastically reduced in 2010 (only small interim, no final). [3]
Sales growth had tailed off with acquisitions. [4]
Even before exceptionals ROCE [5] consistently around 11/12% versus target of 13 to 22%.
Debtors and creditors falling but still high at 26% of sales.
Capex now only 42% of depreciation (average 61% 4 years) – [6] under investment.
Net debt 33% of EV, 2.9 times EBITDA, EBITDA interest cover fallen to 5.2 from 10.3.
Repayment ability 9.3 [7] to 14.8 years to infinity.
Credit rating ? BB ? – on cusp of investment grade and falling. [8]
Over four years £412m cash profit, £383m spent on acquisitions, 41% growth in sales, virtually no growth in underlying profits. [9]

<u>2010 – 2012</u>

Profits little changed pre-exceptionals [10] but dividends partly [11] restored.
Sales reduced by disposals [12] and rationalisations. [13]

Massive de-gearing [14] exercise – net debt now £132m, down by £330m (cash flow) or by £343m (balance sheet)
Reasonable cash generated from cash [15] profits after tax £207m, working capital £149m, [16] depreciation less capex £39m, [17] reduced dividends and disposals £33m. [18]

Net debt % EV down to 14%, net debt/EBITDA 0.6 times. [19]
Interest cover still falling but ok (EBITDA cover 4.7).
But repayment ability now 9.7 years.
Margins have improved [20] from 11% to 22% [21] as target rate of return has fallen with lower costs of capital. Non-personnel cost base being reduced. [22]
Creditors increased so net working assets now negative. [23]
Company has "bitten the bullet" on the pension deficit [24] and the expensive [25] and constraining debt burden.

So a financial strategy [26] of cost cutting, improving efficiency, cash generation and de-gearing – a company very much in transition so what comes next?

<u>Factors driving change</u>

More difficult operating environment [27]
New management regime [28]
New business strategy [29]
Strategy to reduce financial liabilities [30]
More difficult operating environment [31]
Rationalisation post acquisitions [32]

(18 mins, 11 marks)

QUESTION 3 **(23.40 mins, 13 marks)**

Having a clear view about Q3.a. and Q3.b. is important for responding to the rest of the questions, particularly Question 7.

3 a) Divisional characteristics and medium term prospects
(14.4 mins, 8 marks)

(Marking scheme: Expecting both quantitative and qualitative characteristics for each division, eg revenue and profitability, business model. UK & US Services have similar characteristics so OK to discuss these as a pair. For a pass, evidence of a feel for each division as a separate business, and for the significant differences)

Characteristics

• UK/US Services	• Global Products
- service contracts - relatively stable big portfolio - high reliance on domestic government spend - low-medium operating margin - degree of ring-fence - relatively high headcount	- more product orientated - small portfolio, volatile - a little more commercial, international - high operating margin - no ring-fence - relatively low headcount

If these businesses were more conventional then a more generic list of differentiators would include:

- Capital intensity (working and fixed asset)
- Asset life
- Time to market
- Operational gearing

Revenue, profit growth

UK/US service low growth or some decline in revenue and profits.

Global Products potential for higher growth, also by its nature may be able to monetise value up front which a manufacturer might have to harvest over several years.

3 b) Five finance/treasury issues (9 mins, 5 marks)

(Marking scheme: Number of issues, quality of justification. For a pass, minimum of 5 issues)

- Pensions still a material issue
- Evaluation of the Test for Value businesses
- Bidding for UK/US government contracts, given the climate of cutbacks
- Availability of funding for growth if the core UK/US Services businesses take a knock
- Development of entity-wide treasury function
- Insurance and the captive company also probably, given the treasurer's time allotted
- Ring fencing of the US business and its effect on cash flow management and financing of the business – maybe on non-recourse basis
- Possible credit rating to help liquidity.

QUESTION 4 **(21.6 mins, 12 marks)**

4 a) Sustainable cash flow 2013 **(14.4 mins, 8 marks)**

(Marking scheme - ½ mark for each good point)

Assume 2% [1] sales decline (based on latest analysts' projections).

	2013 £m	
Operating profit (2012 161m before exceptional items)	121 [2]	151m analysts' average [3] forecast of EBITA range 145 to 161, less amortisation of 30 – well down on 2012.
Amortisation of intangibles (2012 – 29m) [5]	30 [4]	estimate after recent exceptionals
Change in working capital	13 [6]	limited further squeezing,* sales slight decline
Depreciation	34 [9]	pretty stable, low capex [10] **
Capex at replacement level (deprn x 1.0)	(30) [11]	replacement capex 120-130% deprn. but historical spending at 45% [12]
Tax on operating profit (22.2% [15] x £121m)	(27) [14]	effective tax rate 2012
Cash flow for valuation purposes	141 [15]	(± 10m? range 131m – 151m? [16]

Interest – (probably heading for zero gearing

Dividends – to be decided.

* Change in net working assets

NWA 2012 was – 83.8m, (31.2 + 404.8 – 498.7 – 20.6)

Sales 2013 down 2% = 1470 x 0.98 = 1441

Assume NWA% Sales continues to fall, to, say, - 6.7%

Therefore NWA 2013 = 1441 x – 6.7% = - 965

Change in NWA ≡ + 12.7m**Historical capex looks too low to be sustainable but [13] 2009 capex nearly equals depreciation. Replacement capex might be as high as £43m but hard to assess for this services company.

4 b) **(7.2 mins, 4 marks)**

(Marking scheme - ½ mark for each good point or correct calculation)

Valuation (2% decline per annum) 141 / (0.07 + 0.02) [1] = 1,567m [2]

The actual EV was 1,148, [3] therefore decline seems to be assumed, based on SCF of 141;

g = WACC – (SCF / EV)

g = 0.07 – (141 / 1148)
g = 0.07 – 0.123

g = – 0.053 [4] ie – 5.3%

Decline of 5.3 is below the bottom of the sector growth for 2012 [5] (+ 8 to - 4%).

Therefore the market definitely seems to be assuming longer-term decline of earnings. [6] The following matrix illustrates the impact of various combinations of WACC, SCF and growth rate for the given EV of 1,148. Decline ranges from - 4.4% to – 6.2% [7] for 7% WACC. Different WACC? [8] Undervalued? [9]

Growth rates for differing combinations of WACC and SCF.

(required for EV of 1,148million)

(g = WACC - (SCF/EV)

	WACC			
SCF		131	141	151
	6.0%	(5.4%)	(6.3%)	(7.2%)
	6.5%	(4.9%)	(5.8%)	(6.7%)
	7.0%	(4.4%)	(5.3%)	(6.2%)
	7.5%	(3.9%)	(4.8%)	(5.7%)
	8.0%	(3.4%)	(4.3%)	(5.2%)

QUESTION 5 **(21.6 mins, 12 marks)**

(Marking scheme - ½ mark for each good point or calculation)

Any risk assessment and associated capital structure choice is subjective. The methodology below is therefore more important than the level of the credit ratios chosen.

Credit status now quite strong [1]. Scope for gearing up to reduce [2] WACC, maximise shareholder value and provide debt funding [3] for requirements.

Choice of credit rating equivalent – defence sector, but low risk overall, need for new growth strategy [6] (via organic growth, acquisitions) – possibly single A? [7]

Debt/EV, say, 30% [8]	971 x 0.30 = 291m [9] debt
EBIT Interest Cover*, say, 5 times	121/5.4/5% = 484m debt
EBITDA Int. Cover*, say, [10] 8 times	(121+34+30)/8/5% = 463m debt [11]
Net Debt/EBITDA, say, 2.4 times [12]	(185 x 2.4 = 444m debt [13]
	Average 421m [14]

* NB Profit forecasts have been used from earlier answers.

N.B. Current interest obviously includes 'breakage costs' (effective rate 15.8%) so 5% used as more realistic.

Net debt is currently 84.9 + 164.4 - 117.8 = 131.5m so extra debt/reduced cash of £289m. [15]

Simply increasing the debt would give EV of 971 +289 = 1260 and Debt/EV of 33%.

Net debt peaked at £553m in 2009 (gross debt 815m). So this suggested policy is a return to previous levels [17] of debt, provided profitability can be restored [18] and maintained (controversial?). Company might well be more conservative [19] given current market uncertainties and bad experience of [20] 2010.

Potential problem: - how to spend the cash – company has generated £300m in 2011 and 2012 [21] (with low capex) and is paying down debt/building cash. Our forecast indicates sustainable cash flow of £122m [22] after tax-sheltered interest of 15.7m (£24m x 0.778) but before dividends. NB. Still £109m after "replacement" capex.

Acquisitions in 2007 and 2008 were £137m p.a. but not very successful. Maybe [23] acquisitions are needed to spend the extra debt. Company will need to explore [24] new sources of debt and decide a dividend policy (see next question). Share buy-backs? [25]

The following, alternative answer note gives the view of a practising treasurer. It presents the arguments for a more cautious approach to the question of gearing based on a more conservative assessment of the company's level of risk. The

quantified answer note above gives a more aggressive “corporate finance” view. One could perhaps characterise the two contrasted approaches as one primarily concerned with minimising risk and the other concerned with maximising shareholder value.

Answer to Question 5, additional to the corporate finance based approach.

The information in the background is actually relatively scanty but we need to make some fundamental analysis of this business before we can address the financial strategy. The bulk of the business, ((483+730)/1470), or 83% is essentially an outsourced research arm of the US and UK governments. There are other aspects than research but they share the same characteristics. Its business model to carry out research is to gain a contract, then research. The key asset of the business is the staff and it is probably not heavily capital intensive. There are some fixed assets but they are relatively stable. The high receivables and payables (plus advance payments received) are unusual and a cause for concern but they do seem to be matched and therefore not require much capital.

Therefore this business rather resembles the typical ‘advertising agency’ model, where the key competitive advantage is the staff (who can walk out of the door) and not much else. Perhaps in the case of Cognova there is generated Intellectual Property, but without the staff it is not much use.

So for this part of the business there is no real fundamental demand for capital. Capital expenditure is likely to be quite low, restricted to testing machinery rather than manufacturing machinery. Taking this further, there is therefore no real need for this part of the business to be geared in any way.

However, acquisitions are a major part of the advertising industry and have played their part for Cognova as well, as the £591.1 of intangibles testifies. It is made up of £519.3 goodwill and £71.8 (presumably) IP. Note you can only know this from the accounts of Qinetiq but it is a crucial fact. Note also that they did a large write down of this goodwill in FY 13. So Cognova is in a sector where knowledge is often bought so this must factor into the financial strategy.

The Global products business is small but very profitable and amounts to a small manufacturing business. So this part of the business will need capital for research (unless cloned from the UK and US services), for capital expenditure and for machinery and working capital. Clearly this business should be grown and so needs capital.

Is Cognova a fundamentally good credit risk? On the face of it yes, because it has pretty good customers (UK and US governments) and some long term contracts (although we don’t know this from the material). However both these governments are on the back foot as far as spending money is concerned so arguably there is a credit weakness there. High creditors and advance payments

don't help the credit story. For the Global business, surely it is actually a very risky business. The products are short runs, to possibly strange and volatile governments and the high returns also support the high riskiness. It is not churning large stable numbers of cans of coke at small margins. It is risky.

Does Cognova need to be a good credit risk for its customers? The UK and US governments will want it to be there in the long run, but what they actually want is for the staff and equipment to be there in the long run, and those assets can survive bankruptcy. The US government seems to have enforced some sort of ring fencing anyway so they probably could survive if the shareholder collapsed. For Global products, the customers probably would like a decent credit risk to be there to support the after sales aspects of it all.

So to lenders, this all seems to add up to quite a risky business and so lending to it really will be a rather short term affair, with bank facilities and perhaps private placements up to say 5 years maximum. It does not feel like a natural bond issuer.

And lending is really only needed to support acquisitions, with a short term repayment cycle, then start over again. Global Products is a slight wrinkle to this, but its riskiness tends towards lower gearing as well.

So to get to answering the question, I do not think that a gearing policy level is appropriate over the long run, unless it is zero. So if Cognova makes an acquisition, it does so with a suitable mix of short term debt and equity, with a target of zero gearing within the contract life horizon of say 4 to 5 years. To get that finance, it needs to be on good terms with its shareholders and bankers and be prepared to 'go junk' for a short while. So confidence in management ability to make acquisitions work is the key credit risk. A credit rating does not seem appropriate for Cognova as it may change too quickly.

QUESTION 6 **(21.6 mins, 12 marks)**

(Marking scheme - ½ mark for each good point or relevant calculation)

<u>Dividend history</u>

Up to 2009 dividends growing at 16.4% and [1] 11.8% then cut in 2010 (no final 2010, no interim 2011). [2]
Company could clearly [3] afford the dividend in cash terms so why cut? Signal to the market [4] of determination to sort out the finances after [5] 2 profit warnings? Prior to 2010, yield at a low 2.3 to 2.6% [6] (increasing), well covered at 3.1 to [7] 3.3 times (increasing).

Dividends resumed at a very modest level eg 2012 61% of [8] the 2009 level. Yield even lower and even better covered by underlying [9] eps.
Big problem has been difference between basic and underlying eps.

Totals 2007-2012	basic	23.13p	cover 1.23 x
	underlying	65.90p	cover 3.52 x [10]

The basic is what is actually available, the underlying is what "might have been" – so it is now time to deliver the underlying as the basic.

Considerations

Sufficient sustainable [11] earnings must be actually delivered over time to provide adequate cover (subjective [12] judgement, depending on volatility [13] and expected growth in earnings) meaning "no risk" of a further dividend cut from a [14] drop in earnings

Analysts estimates of eps range (high/low) = 14.3p to 18.72p for 2013 [15]

Also strength and stability in actual cash [16] flow available for dividend eg working capital and capex considerations – the cash conversion ratio issue. Depends on company's growth strategy. Over the 6 years cash before dividends = £842m as against earnings of £810m, [17] so no problems unless capex has been too low

Above all company needs to select and [18] communicate a sustainable dividend policy.

		re-geared	as is
Sustainable operating profit 2013		= 121m	121m
Assume interest if re-geared to reasonable level (5.0 times cover)		= (24m)	0
Tax @ 22%		= (21m) [19]	(27)
Profit after tax		= 76m	94m
No. shares 660.476m	eps	11.5p [20]	14.2
Assume comfortable dividend cover given reasonably low risk business, strong cash flows, low growth		2.4 times [21]	
	dps	4.79p [22]	(5% compound annual growth on the 2009 level)
ie dividends of £31.7m			

NB. The re-geared scenario above is very pessimistic – interest on new debt is included but spent on new acquisitions generating no extra earnings as yet.

	2013	2014
N.B. Analysts' forecasts of eps [23]	14.30/16.77/18.72	12.70/14.69/15.84

NB. Sustainable cash flow can [24] easily cover £32m of dividends. From above - £141m less tax-sheltered interest of 19m = £122m. [25] (or £109m with replacement capex.

So generated cash flow is available for investments and acquisitions, [26] supplemented by the new debt available, under the suggested gearing policy, [27]

Aim to grow dividends thereafter at, say, 5% p.a. [28]

Yield for a low growth "yield stock" 5% - 6%, based on dps 6.4p to 7.7p [29] and a price of 128p.

QUESTION 7 **(30.6 mins, 17 marks)**

7 a) Future treasury functions **(10.8 mins, 6 marks)**

(Marking scheme: Number of functions, <u>coverage of key areas</u>, quality of comments; evidence of translating "issues" (i.e. Q3 b) into treasury "functions".)

Question 3 b response provides a starting point for this part:

- Pensions
- Evaluating "Test for Value" businesses
- Bidding for UK/US government contracts in cutback conditions
- Funding for the business overall if UK/US services falter
- Insurance, eg of military assets
- Development of a pro-active entity-wide treasury function
- Ring fencing the US business
- Credit rating.

How to translate this into "functions"?

- Pensions and insurance, party as a legacy function
- Funding for the business overall; outward facing to financial markets and governments as well as inward facing
- The treasury-financial dimensions of project evaluation, project monitoring and value extraction as a joined-up long-term process in Global Services
- Participation in and oversight of the bidding process so that the out-turn adds to rather than destroys value for shareholders in the long-term; potential for the classic technical boffin – bean counter clash
- More conventional treasury risk management functions such as liquidity/cash management, currency, interest risk, commodity risk, trade finance, sovereign risk
- Corporate structure analysis, especially in the US for the ring fenced business, with possibility of separate non-recourse finance for it.

7 b) Future treasury structure (10.8 mins, 6 marks)

(Marking scheme: Evidence of ability to translate "functions" into an "organisation structure". For a pass, expect to see some acknowledgement of the ring-fence nature of the Service businesses and the more conventional nature of Global Products.)

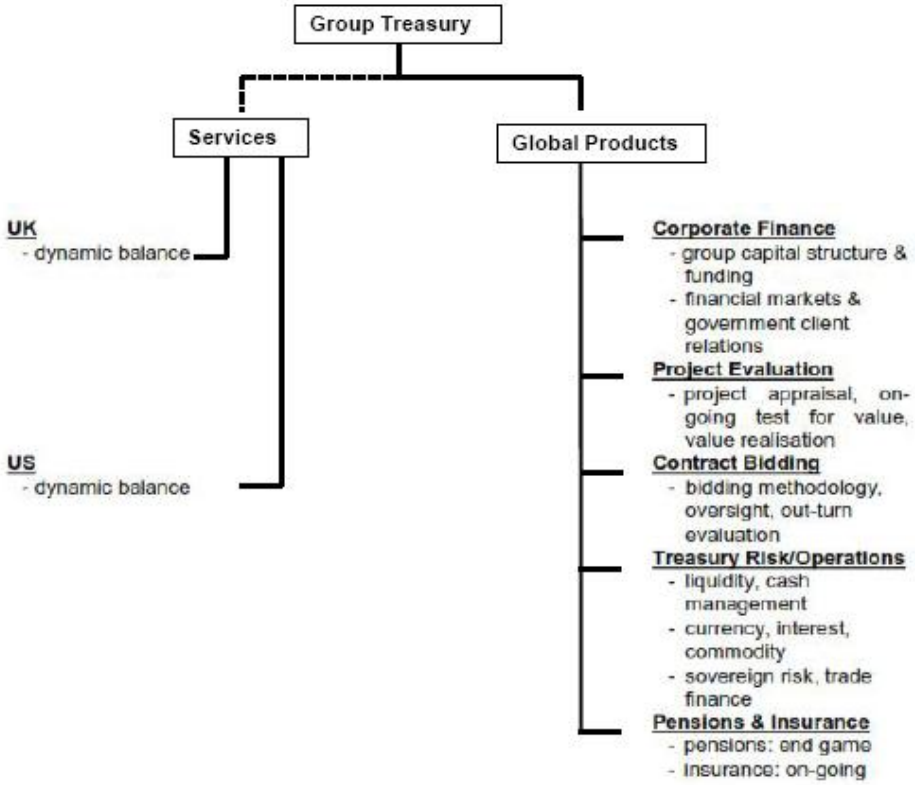
Treasury has existed for only three years, there is no current structure to displace, so this will depend very much on how the business develops. In fact there could be a pushback from management who may not see the relevance of treasury until a crisis develops somewhere.

Since recruitment in 2010 the Treasurer has been focussing on the key issues of pension deficit and stronger balance sheet. The potential for short to medium term revenue and profit growth is in Global Products, and possibly also the potential for greatest new treasury risks.

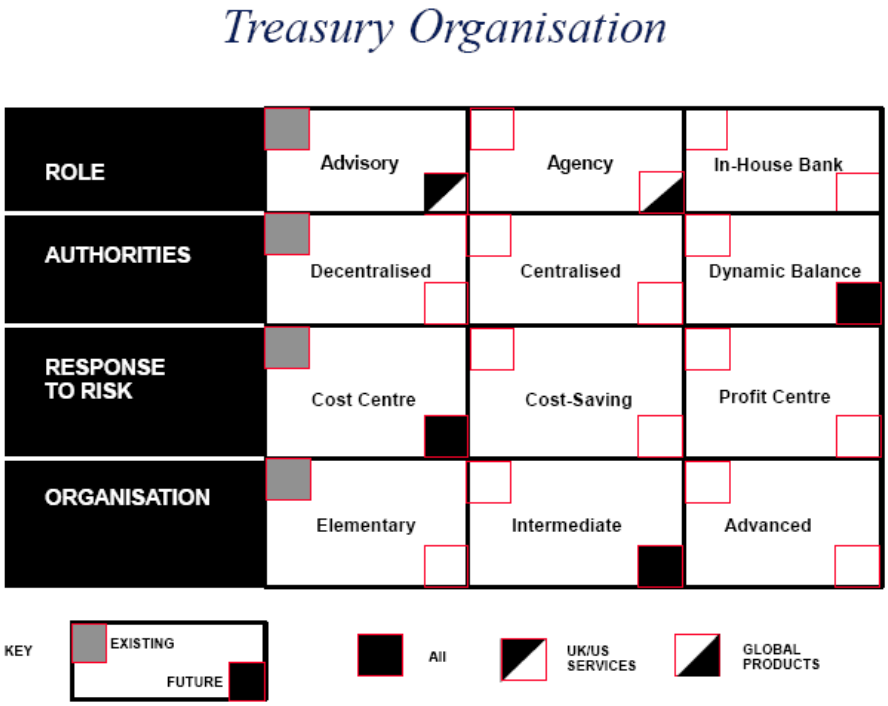
If this potential is realised then the firm may have in the medium term two partially ring-fenced static businesses (UK & US) and a non-ring-fenced low capital intensive high growth international business with conventional treasury management needs.

It may be that the legal structure of the Group needs to recognise the ring-fence issues in the UK and US (shades of the ICB/Vickers UK bank ring-fence). If so, then the treasury structure needs to recognise this too. Look at financing this business. Perhaps do this separately on a non-recourse basis. Argument may also apply to the UK defence division.
Ideally, the business needs a CEO/CFO who sees the long-term benefits in creating a consistent approach to financial performance and risk management across a group with a hi-tech culture, public sector/military orientation and in organisation terms formally siloed divisions to safeguard valid national security interests. For this to happen requires a group treasurer with strong political as well as financial skills, an understanding and respect for technology, persuasiveness and demonstrated unwavering support from top management.

So the structure could be a group treasury which has a direct control of Global Products but advises/sets policy for UK and US Services and delegates operations.



The Treasury Organisation matrix below indicates where things might be expected to evolve in the medium-term. It is more likely to be “evolution” rather than “revolution”, in the absence of a shock event.



7 c) Role in Bid Process (9 mins, 5 marks)

(Marking scheme: Number of points, quality of comments, coverage of both risks and their management. For a pass, probably 6-8 points but "coverage" and "quality" more significant.)

Risks

- Tender to contract price risks, eg currency, commodity, interest, staff costs
- Sovereign, counterparty payment risks
- Fixed price risk and cost escalation
- Performance penalties and related insurance type bonds (bid bonds, advance payment bonds, performance bonds). Wording of bonds, central/local provision, monitoring of outstandings and cancellations. Difficulty in US market where US banks cannot issue guarantees so business underwritten by insurance companies which may need LCs.

Bid Process

- Oversight re accuracy of pricing of bid and profitability
- Advice and provision of facilities for financing dimensions eg bonds, lc's
- Financial Audit of success rates and out-turn.

Overall, involvement in the bid timeline from the start so financial dimensions, particularly, costs, risks, profitability and benchmark returns, are fully recognised.

QUESTION 8 **(21.6 mins, 12 marks)**

Suggestions for Negotiation **(21.6 mins, 12 marks)**

(Marking scheme: Number of points, quality and comments, coverage of both deficit reduction and de-risking the scheme – most of all evidence of trying to build in a balance of benefits to both parties as a basis for negotiation. For a pass probably around 8-10 good points, but coverage and balance important.)

The negotiations are about making the scheme affordable and predictable for the company on the one hand and certain as to payment for the beneficiaries on the other. In other words, the Question is about devising changes which benefit both parties rather than providing a list of risk mitigants. For example:

In favour of the Scheme:

1. Improved insolvency protection
2. One-off lump sum cash payment from Company
3. Contingent asset in the form of a 20 year asset backed funding arrangement using one of the Company's freehold properties
4. De-risking of investment allocation, increasing percentage of defensive assets by next valuation to an agreed level
5. Liability hedging.

In favour of the Company:

1. Switch of index from RPI to CPI for revaluing pensions in payment (subject to trust deed and unions)
2. Closure of the Scheme to future accrual
3. Liability management exercise to reduce size of the Scheme by transferring out benefits (ETV and TPIE) ie something now instead of something more valuable but uncertain in the future
4. Agreement to facilitate a closer collaboration on investment strategy (including liability hedging).

In favour of Both:

1. Buy out from insurance company (but likely to be expensive up front).

Extra marks for picking up that the US will also have similar pension problems, and will be managed separately from the UK scheme, so solving one does not necessarily solve both pension schemes.

Notes:

<u>Insolvency Protection</u>: If the company becomes insolvent, although the existing fund is protected, the company may owe the fund money (as with Cognova) and the fund becomes an unsecured creditor. It is however possible to negotiate a

higher preferential status in anticipation of insolvency.

ETV is enhanced transfer value exercises – whereby deferred members are offered an incentive to transfer their benefits out of their scheme

TPIE is total pension increase exchange exercises – whereby deferred members over early retirement age are offered to transfer out of their scheme and receive an augmented immediate pension in return for giving up their future pension increases.

Examiner's Report

Advanced Diploma - April 2013

OVERALL SUMMARY

OVERVIEW

	General Exam	Case Exam	Combined
Marks	47.8%	57.8%	52.8%
Questions	8	8	16
Students	18	16	34
Pass #	7	12	19
Pass %	39%	75%	54%

Range of marks 31.9% to 72.2% 44.3% to 73.1%

N.B. For original marking purposes the pass mark discussed here is 50%.

This was a good set of results overall, with the range of marks and the average mark a few points higher than for some time. The average mark and pass rate on the case exam were particularly good. The general distribution of the marks across the two papers was very good, but it revealed three very distinct constituencies – the top 29% achieved marks of 60 or above, the “middle slice” of 44% of candidates achieved marks between 45 and 57, but the remaining 27% achieved marks between 32% and 45%. One excellent candidate achieved an average mark of 70.6%.

We have detailed the results by question, which show that some questions had very low pass rates and very low average marks;

General exam	marks available	passes out of 18	average mark
Q1 (GI)	14	13	58%
Q2 (GI)	24	6	42%
Q3 (GI)	13	9	48%
Q4 (JB)	12	7	40%
Q5 (JB)	9	12	53%
Q6 (JB)	8	9	49%
Q7 (JB)	8	10	54%
Q8 (JB)	12	8	46%
Case exam	**marks available**	**passes out of 16**	**average mark**
Q1 (GI)	12	10	54%
Q2 (GI)	10	11	56%
Q3 (JB)	13	13	56%
Q4 (GI)	12	13	66%
Q5 (GI)	12	13	66%
Q6 (GI)	12	8	50%
Q7 (JB)	17	13	59%
Q8 (JB)	12	8	53%

Corporate Finance and Funding Summary (both papers)

Overall the quality of answers on the eight corporate finance and funding questions across the two papers (109 marks out of 200) was much better than in recent years. The average mark was 53.7% with 12 passes plus 3 marginal passes out of the 19 candidates. Two candidates were at distinction level but 3 of the clear fails were bad fails with marks in the 30s.

Treasury and Risk Management Summary (both papers)

There were eight questions on treasury and risk management across the two papers (91 marks out of 200). Unusually the marks were poorer on TRM than on CFF and worse than in previous years. The average mark for the 19 candidates was reasonable at 51.5% but only 9 of the 19 candidates passed, but with another 6 marginal passes. Again there were two distinction level candidates. There were 2 bad fails but not the same as those in CF&F. The most significant and unusual feature of the distribution was the 42% of candidates achieving scores in the 40s.

Examiner's Report - Case Study Examination

Question 1 Assessment of the positive and negative aspects of the business and its environment, and the implications for valuation multiples.

Part 1a. This question produced some very good analysis with an average score of 58% and 14 passes. There was a lot to write about and most candidates provided pretty comprehensive analysis, but the 2 fails wrote very thin answers. This is a variation on a predictable, generic question so candidates are expected to have researched the non-financials well, in advance, and have plenty to write about.

Part 1b was about quantifying and interpreting trends in the company's valuation multiples, relative to peer companies, sectors and market indexes. The data were messy, as is the norm, but it was possible to identify that the company had more or less suffered in line with its sector. What many candidates do not seem to understand is the difference between share prices falling because of falling profits on the one hand and falling multiples on the other hand. The big issue in this case is the market's concern that levels of existing business and profits in the defence sector are coming under increasing pressure and that strategies for future growth are not totally convincing.

Question 2 Main changes in the financial profile over the last two years and the main factors driving them

A good average mark of 56% and 11 passes on this question, but the five fails ere very poor and thin answers. This generic question on the financials is predictable but it is important to answer the particular question as posed by the examiners. The biggest weakness of the poorer answers was a failure to relate the financials to the non-financials i.e. "the main factors driving them".

Question 3 (a) Divisional business characteristics and prospects, and (b) five most important future treasury finance issues

Both parts of the Question invited students to pull together their analyses of the business and its financials (Q1, Q2). Both parts were answered well, particularly the evergreen part (b) with 14 passes out of 16 students. Part (a) was included to draw attention to the quite different characteristics and prospects for Global products when compared with the traditional Services businesses (11 passes).

Responses to this Question had particular relevance for Question 7.

Question 4 Calculation of sustainable cash flow, valuation and comment

This question on core material was very well answered (66% average mark and 13 passes out of 16). A few candidates, however, did not have a reliable grasp of the methodology and, although most candidates produced plausible numbers the detailed calculations by some are mechanical and suspect e.g.1. simply using a five-year average even when the recent figures are very different from the earlier ones e.g.2. using last year's figures all multiplied by a constant inflation or growth factor. The objective is to use one's judgement as to what is a sustainable figure for each cash flow item, each considered separately in relation to the particular pattern of the last few years. On the valuation question some lost marks by not drawing any conclusions about their value and the company's actual market value – surprising in that the answers to the previous three generic questions lead into the issue of the apparent under-valuation of the company and the reasons for that.

Question 5 Recommend a gearing policy for the company.

A 66% average mark and 13 passes again on this question! I gave two candidates 100% and two candidates 29%. The general standard was good, but with varying proportions of quantification and discussion of the principals involved, and the best answers had both in equal measure. The best also built on their calculations of sustainable cash flow from question 4.

Question 6 Discuss dividend policy principles and recommend a dividend policy given the company's past dividend record. Related to question 5.

A 50% average mark and only a 50% pass rate – the lowest on this paper! But one 100% mark and one 21% mark. The comment about balance or lack of it between words and numbers also applies here, with poor or no quantification being the bigger weakness. The earlier work on sustainable cash flow and policy gearing level are crucial here if one is to recommend an actual dividend payment, based on a view of what is an appropriate level of dividend cover.

<u>Question 7</u> Future Functions and Organisational Structure for Treasury, Including Treasury Involvement in the Contract Bidding Process.

Three-part 17 mark Question, requiring a good grasp of the overall business, its component parts and their future opportunities and challenges. Throughout responses needed to reflect the (partially) ring-fenced nature of Services and the more normal circumstances of Global Products. More perceptive students also recognised that introducing a group-wide treasury function when very little has existed beforehand in such a large and diverse organisation would be an evolutionary process. The first part of the Question was about translating the major issues already identified at Q3.b. into recognisable functions. The second part was about creating an organisational structure to execute these functions, giving a general indication of overall role, accountability/control, response to risk and complexity of structure. The third part focussed on contract bidding, an area of particular significance for all businesses.

All three parts of this testing Question were well answered, with a pass rate overall of 13/16 and by part 14/16, 11/16, 13/16.

<u>Question 8</u> Proposals for negotiating further changes to the Pension Scheme

Cognova migrated to the private sector with a defined benefit pension scheme which because of its unsustainability had already been renegotiated once to pre-empt the collapse of the business. The objectives this time are to further reduce the deficit and de-risk the scheme. The challenge in the Question is to determine a set of proposals as a basis for negotiation which of necessity must offer some benefits to both parties in terms of reducing the burden of the scheme on the company and providing more certainty and sustainability to scheme members.

So this Question was not just about listing dbp risks and mitigation but also about establishing a balanced starting point for negotiations. Perhaps because this Question came last, some answers were much too brief to earn 12 marks so the pass rate fell to 8/16.

Summary of Questions 1, 2, 4, 5 and 6, Case Exam (58 marks) – Corporate Finance and Funding.

Overall 13/16 passes, average mark 58.6%, range 40% to 76%, with four candidates in the 70s – an excellent performance, with some genuinely impressive work.

Summary of Questions 3 ,7 and 8, Case Exam (42 marks) – Treasury & Risk Management

Overall 14/16 passes, average mark 56.6%, range 44% to 71%, excellent performance and noticeably good pick up on nuances of the businesses.

LEADING TREASURY PROFESSIONALS

The Association of Corporate Treasurers

Examiners Paper, Solutions and Examiners Report

MCT ADVANCED DIPLOMA

GENERAL EXAMINATION

APRIL 2013

QUESTION 1

A recent survey of North American finance professionals investigated current practice in project appraisal methodology. The results are summarised below:

Period of explicit cash flow forecasts:
5 years 38%, 10 years 35%, full project 27%
Risk-free rate instrument: 46% used the 10-year Treasury bond
Range: 90-day Treasury bills to 30-year Treasury bonds
Cost of debt:
current cost of total debt 37%
forecast rate on newly-issued debt 34%
average cost of total debt over some historical time period 29%
Tax rate for shelter of debt:
affective P&L tax rate 64%, marginal tax rate 29%, 7% a target rate
Debt to equity ratio:
current book debt and equity 30%
target debt/equity ratio 28%
current market debt and equity 23%
current book debt, market equity 19%
Project discount rates in DCF calculations:
WACC used for all appraisals 53%, higher hurdle rate or variable hurdle rates 47%.

Required:

With specific reference to each of the 6 findings above and concerning yourself with "best-practice" for project appraisal in a non-financial organisation, answer the following questions:

a) How would you choose the explicit forecast period?

(1½ marks)

b) What risk-free instrument would you choose and why?

(1½ marks)

c) Which method would you use for the cost of debt and why?

(1½ marks)

d) What are the pros and cons of using the effective tax rate versus the marginal tax rate? Define "effective" and "marginal" tax rates.

(2½ marks)

e) Which is technically the "best" method for calculating gearing and which is the "worst"? Give your reasons and identify any problems in using each method.

(3 marks)

f) What are the arguments for using the same WACC for all appraisals (53% of practitioners)? Why would some companies use a single higher hurdle rate or variable hurdle rates?

(4 marks)

(Total 14 marks)

QUESTION 2

You are a member of the Finance and Treasury team working for North East Builders, a construction company which specialises in work for local authorities and other public sector organisations. In 2012 North East Builders reported turnover of £158 million (excluding £24 million from joint ventures) and operating profit of £12.8 million, before exceptional charges of £1.0 million. Joint ventures contributed £8.0 million of this operating profit. The net interest charge on group and j.v. debt, was £5.6 million (of which j.v. interest was £5.4m). Group, cash balances stood at £25.4 million, group debt at £76.2 million and joint venture debt at £120 million. The CEO reported that "because of the adverse economic environment affecting the construction industry, also the UK Government's public sector spending cuts and changes to the benefits regime, competition for new business is increasing in its intensity".

Your company is a member of the Toon Consortium which is bidding for a 25-year project to design, build and operate a 390-unit social housing, extra-care facility, located on three sites, for Newcastle City Council (NCC). The NCC has a responsibility for, and an urgent requirement for, suitable accommodation to house its elderly people with varying levels of care needs. The facilities will include a range of communal amenities for both residents and non-residents, such as restaurants, coffee shops, lounges, hairdressing salons, therapy rooms and gyms. Payments for rent and services are largely supported from local authority or central government sources. The total cost of the project is estimated at £120 million.

Your partners in the consortium are Care Homes Ltd, a not-for-profit housing association, and Nagoya Financial Partnership Ltd, specialist investors in healthcare and education, who will provide investment, financial expertise and introductions for the long-term debt finance. The bid costs for North East Builders, which are non-recoverable if the Toon Consortium bid is unsuccessful, are estimated at £350,000. The members of the Consortium have not worked together previously.

A Special Purpose Vehicle (Geordiecare Ltd) will be established to contract with Newcastle City Council to provide the extra-care accommodation on a long lease, for which it will receive payments from NCC. The SPV, in turn, will grant a sub-lease to Care Homes, who will serve as landlord to residents of the homes, for which they will pay a guaranteed lease charge to the SPV. Construction and maintenance of the facility will be sub-contracted to North East Builders. Management of tenancy and resident services will be sub-contracted to Care Homes. On-site care and support services will be provided outside of the PFI by specialist care providers appointed by NCC.

Financing will consist of equity share capital, subordinated debt and senior debt. Equity of £1 million and subordinated debt of £11 million will be contributed by the partners in proportion to their respective shareholdings in Geordiecare Ltd; North East Builders 25%, Care Homes 25%, Nagoya 50%. Interest on the subordinated debt is projected at 11%, with the blended return on equity and subordinated debt projected at 13%. The equity would be subscribed at the outset but the sub-debt would be subscribed at the end of the construction period, scheduled for month 18, and would repay the "subordinated debt bridging loan" provided by the senior lenders. The project IRR is calculated at 9.75%.

NCC has an option to purchase the facility from the SPV after 25 years. If NCC does not exercise its option to buy the facility then Care Homes will be contracted to buy the facility and pay at least the "residual value", an amount to be agreed as part of the consortium's bid. The effect of this "residual value" payment is to reduce the level of loan repayments during the lifetime of the PFI and also reduce the charges payable by NCC to the SPV. There will also be an "overage sharing arrangement" whereby, if the market value exceeds the agreed residual value, Care Homes will pay 50% of the difference to NCC. If the market value is less than the residual value there are no extra payments either way.

In the event of any default by the SPV, NCC reserves the right to take ownership and control of the PFI assets on payment, to the SPV, of a sum equal to the present value of the "residual value", discounted at the project IRR. This discounted "residual value" will be considerably less than the re-payable outstanding debt in the early years of the project.

Required:

a) What are the main risks to the SPV? In each case say how the SPV could be protected from the risk and who should bear the risk?

(10 marks)

b) What is the implied rate of return on the equity and the implied interest rate on the senior debt? Comment on the relative costs and functions of the three types of finance.

(6 marks)

c) What are the pros and cons, for North East Builders and for Care Homes respectively, of including a higher versus a lower "residual value" in the competitive tender?

(4 marks)

d) In broad terms summarise the likely financial returns and main risks for North East Builders, in preparation for a forthcoming Board Meeting.

(4 marks)

(Total 24 marks)

QUESTION 3

On January 30th 2013 the German healthcare and pharmaceutical company Stein AG announced a bid of $34 per share, worth $1.13 billion, for the US vitamin company Schooner Inc. The bid was subsequently agreed.

On February 15th Stein's UK rival, Albion PLC, made a counter bid of $42 per share, worth $1.40 billion (£880 million). Albion intend to fund the acquisition, which is key to its strategic global move into vitamins, from existing debt facilities. This rival bid was agreed on 22nd February and Stein decided not to increase its original offer.

It estimates that it can make cost savings of £25m.

Between 26th January and 22nd February the FTSE 100 Index fell slightly from 5806.7 to 5791.0.

	Schooner Inc.			**Albion PLC**		
	June 2012			September 2012		
	$ millions			**£ millions**		
Sales	258.9			9,485		
Profit before interest	25.46			2,395		
Interest received	0.056			23		
Interest paid	(2.795)			(32)		
Tax paid	(9.074)			(622)		
Earnings	13.727			1,745		
Gross debt	135.762			2,508		
E.P.S. years	2012	2013	2014	2012	2013	2014
Earnings per share ($ or £)	0.47	0.94	1.20	2.40	2.47	2.48
Average no shares (mill)	33.186			727.629		
No. of shares at year-end	33.341			728.622		
Share prices	**$**			**£**		
2 October 2012	17.48			35.07		
1 November 2012	19.28			35.60		
4 December 2012	24.19			35.65		
1 January 2013	24.49			37.50		
26 January 2013	23.19			37.50		
31 January 2013	33.84			37.50		
15 February 2013	33.92			37.51		
16 February 2013	43.76			37.04		
22 February 2013	41.90			38.59		

Required:

a) What are the likely reasons for the increase in Schooner's share price between October 2012 and 26th January 2013, and the increase in Albion's share price since 16th February 2013?

(4 marks)

b) Calculate the market capitalisation values of the two companies and their combined values between 26th January and 22nd February 2013. Has the proposed merger permanently added value?

(4 marks)

c) Given Albion's intention to fund the acquisition with debt calculate Albion's eps for next year. Comment on the importance of the likely improvement in eps.

(5 marks)

(Total 13 marks)

QUESTION 4

You are Treasurer of Fonds Jacques Brulure (FJB), a charitable fund which endows worthy causes with fixed annual grants for 3 to 10 year periods. It therefore seeks to hedge its future income from investments in line with future commitments.

Summary financials (EURm)

			2010			**2011**
Fund at start year			11,861			12,656
Charitable activities			(654)			(617)
Income, gains	(209	+	1302)	(237	+	132)
Expenses	1,511			369		
			(62)			(55)
			12,656			12,353

***** Fund seeks to earn 5% real long-term return.

For the portion of the fund invested in assets which deliver Libor-linked returns the charity transacts "pay floating, receive fixed" IRSs. The swap counterparties now require either a Credit Support Annex (CSA) or a credit risk premium in lieu.

Indicative premiums paid by a BBB+ rated entity for a EUR 10m IRS without a CSA are shown below:

5 Year IRS	10 bps
7 Year IRS	13 bps
10 Year IRS	18 bps

Some banks are also justifying a liquidity premium by arguing that with a positive yield curve the swap payments represent an embedded loan. In the early years of the swap the fixed payment from the swap bank is higher than the floating payment it receives and this imbalance is only redressed in later years.

Currently you have EUR 50m nominal of IRS, average maturity 5yrs.

Your CFO has asked you to advise on two possibilities for reducing the cost of IRS hedging:

(x) Use exchange traded futures

(y) Acquire a rating to reduce your perceived counterparty credit risk to the bank.

continued overleaf

Required:

a) i) What is the extra cost of hedging without CSAs?

(1 mark)

ii) Could it be worthwhile? Justify your answer.

(3 marks)

b) Comment on the feasibility of the CFO's suggestions (x) and (y).

(5 marks)

c) Is the Bank's argument for a liquidity premium valid? Justify your answer.

(3 marks)

(Total 12 marks)

QUESTION 5

You are Treasurer of a medium-sized e-retail company, originally a family-run mail-order business and in 2009 subject to a management buy-out. The post buy-out shift to e-retail sought to capitalise on a similar shift in retail market sentiment driven in part by the financial crisis and the company is now growing rapidly. Currently turnover is £400m, growth 18% pa, net debt £70m all bank funded.

Your Chief Executive, widely respected in the e-retail business and largely responsible for the recent growth, returns from a Breakfast Presentation at the firm's brokers eager to explore the possibilities presented by the fledgling Retail Bonds Market (LSEs ORB : Order book for Retail Bonds – this is the only UK-based market dedicated to retail-focussed issues, although some brokerages do offer retail investors access to the corporate bond market).

The Chief Executive sees two opportunities: (i) diversifying funding sources which are currently entirely bank-based; and (ii) issuing a retail bond to give publicity to the firm's name and to allow customers to share in the firm's success.

The data provided at the broker's presentation includes a profile of typical retail bond investors and a record of ORB issues since 2010.

In 2011 Tesco Bank issued two retail bonds on ORB, raising £185m. One was priced at 5.2% fixed and the other was RPI linked. Another Tesco Bank issue in 2012 at 5%, maturing in 2020, was oversubscribed.

Recent non-ORB issues included Hotel Chocolat offering 6.75% fixed for 3 years to raise £5m (issued £3.7m) and Mr & Mrs Smith, boutique hotels, offering 7.5% fixed for a similar maturity and amount.

The Typical Retail Investor

Behaviour

- 75% use tax efficient Individual Savings Accounts (ISAs)
- 43% use Self Invested Personal Pension (SIPP) accounts
- Prefer corporates and have a fondness for higher yield
- 71% aim to purchase bonds around the BBB area
- 5-7 year maturity "sweet spot" with 81% of respondents choosing this maturity
- Multiple buyers – 56% of respondents hold 5 or more bonds

Characteristics

- Prefer known-name or brand
- Absolute return, not relative value
- Round-numbers important - coupon, maturity, price
- Alternative valuation criteria to institutional market

Born on ORB Issues since February 2010

Sector	No of issuers	Volume	No of issues/taps	Size Range	Rating range
Banks	3	£795m	12	£10-200m	NR – Aa3
Alternative Financials	5	£810m	8	£25-300m	BBB- to A-
Supranationals	1	£350m	1	£350m*	AAA
Utilities/Infra	3	£517m	6	£40-260m	Baa2-AA-
Property	4	£278m	4	£58-80m	NR
Industrials	0	0	0	0	0
Retailers	0	0	0	0	0

* Retail eligible offer

Required:

a) What are your views about (i) ie the pros and cons of your company issuing on ORB as an alternative to bank finance?

(6 marks)

b) What is your advice about (ii) ie using the issue to publicise the business and create customer loyalty?

(3 marks)

(Total 9 marks)

QUESTION 6

You sit on the Investment Committee of a medium-sized privately owned company's pension fund as the shareholder representative.

The defined benefit scheme is closed to new members and also closed to future accruals. Covenants are in place to limit the size of deficit in relation to pre-tax profit and to require the company to refer to Trustees for approval of future changes to the nature of the business.

Current deficit is 120% of pre-tax profit with a 10-yr plan in place to eliminate the deficit.

The Investment Committee is considering investing in a new retail bond issue on LSE's ORB by Propinvest Holding plc, a UK-based property investment company, as part of a general endeavour to enhance yield:

PropInvest Retail Bond

Issuer	**PropInvest Holdings plc**
Issue Date	30 April 2013
Maturity	31 December 2020
Amount	£65m
Coupon	5.500%
Coupon Frequency	6 months
Coupon Type	Fixed
Denomination	100.00
Currency	GBP
Calculate	ACT/365 ISMA
Secured	No
Rated	No

Business Strategy

Propinvest invests mainly in office buildings in major European business cities: 45% of the portfolio is in London, 26% in France, 21% in Germany and 8% in Sweden. The Group believes that over the long-term this spread of locations provides the advantages of diversification into major European markets.

At 30 June 2012 the portfolio comprised 76 buildings, providing floor space of 412,200 sq. metres, let to over 400 tenants.

Financing Strategy

Propinvest believes in having a wide range of financing sources to assist in its objectives. Its strategy is for each property asset to be in its own wholly-owned subsidiary with its own separate financing arrangements, typically using bank debt and Group equity. This helps to ring-fence each property and its related debt from affecting the rest of the Group, helping to minimise risk to the Group as a whole. Propinvest has active borrowing relationships with 19 banks as part of this strategy, as well as one long-term debenture and one unsecured corporate bond which it issued in Sweden in 2011. Net loan to value at 30 June 2012 was 56%.

Five Year Financial Summary

31 December 2011

	2011 £m	2010 £m	2009 £m	2008 £m	2007 £m
Group revenue	**80.1**	79.1	76.3	81.6	89.5
Costs	**(30.6)**	(30.3)	(30.3)	(37.4)	(49.9)
	49.5	48.8	46.0	44.2	39.6
Net movements on revaluation of investment properties	**18.0**	30.1	(6.7)	(103.3)	(68.1)
Gain on sale of corporate bonds and other investments	**0.5**	9.3	1.9	–	–
Profit on sale of investment properties	**–**	–	0.3	7.0	–
Profit/(loss) on sale of subsidiaries/joint venture/associates	**2.2**	–	–	(16.2)	(1.9)
Impairment of intangible fixed assets and goodwill	**–**	–	–	(22.0)	–
Operating profit/(loss)	**70.2**	88.2	41.5	(90.3)	(30.4)
Finance income	**12.2**	6.1	6.6	8.7	6.6
Finance costs	**(47.7)**	(31.1)	(32.1)	(51.7)	(49.3)
Share of profit/(loss) of associates after tax	**3.0**	7.7	2.5	(7.5)	0.5
Other non-recurring costs	**–**	–	–	(1.3)	–
Profit/(loss) before tax	**37.7**	70.9	18.5	(142.1)	(72.6)
Taxation	**1.1**	(10.8)	(1.1)	64.1	39.7
Profit/(loss) for the year	**38.8**	60.1	17.4	(78.0)	(32.9)
Share buy-backs paid and proposed	**12.3**	11.1	6.0	59.0	9.3
Net Assets Employed					
Non-current assets	**1,037.0**	1,018.6	944.2	869.1	1,251.5
Current assets	**67.3**	59.8	80.7	205.9	132.4
	1,104.3	1,078.4	1,024.9	1,075.0	1,383.9
Current liabilities	**(182.9)**	(123.1)	(164.3)	(133.9)	(167.7)
Non-current liabilities	**(553.9)**	(598.1)	(551.6)	(602.5)	(813.1)
Net assets	**367.5**	357.2	309.0	338.6	403.1

Ratios	2011	2010	2009	2008	2007
Net assets per share (pence)	**817.5**	766.7	643.3	548.4	595.1
EPRA net assets per share (pence)	**983.1**	952.9	825.8	698.4	770.4
Earnings/(loss) per share (pence)	**82.0**	127.1	36.4	(120.6)	(45.7)
EPRA earnings/(loss) per share (pence)	**64.9**	42.5	28.0	28.4	(9.1)
Net gearing (%)	**155.0**	152.3	170.0	121.1	169.1
Adjusted net gearing (%)	**128.5**	122.1	132.5	95.1	130.6
Recurring interest cover (times)	**2.63**	3.15	2.08	1.08	1.31

Notes Net gearing (%) = Net Debt % Net Assets

Adjusted net gearing % = Net Debt % Adjusted Net Assets

Adjusted net assets = Net Assets excluding the fair value of financial derivatives, deferred tax on revaluations, and goodwill arising as a result of deferred tax.

Required:

a) What are the principal risks associated with this investment which you would wish to discuss with the Committee?

(5 marks)

b) What additional information would you request from the Committee before deciding whether or not to support the investment?

(3 marks)

(Total 8 marks)

QUESTION 7

"Using derivatives to hedge net investment risk on an overseas subsidiary is a waste of effort if the subsidiary's local currency is in long term decline against the parent company's currency."

Required:

a) What is net investment currency risk?

(2 marks)

b) How does it arise and how could you hedge it?

(3 marks)

c) Do you agree with the quotation above? Justify your answer.

(3 marks)

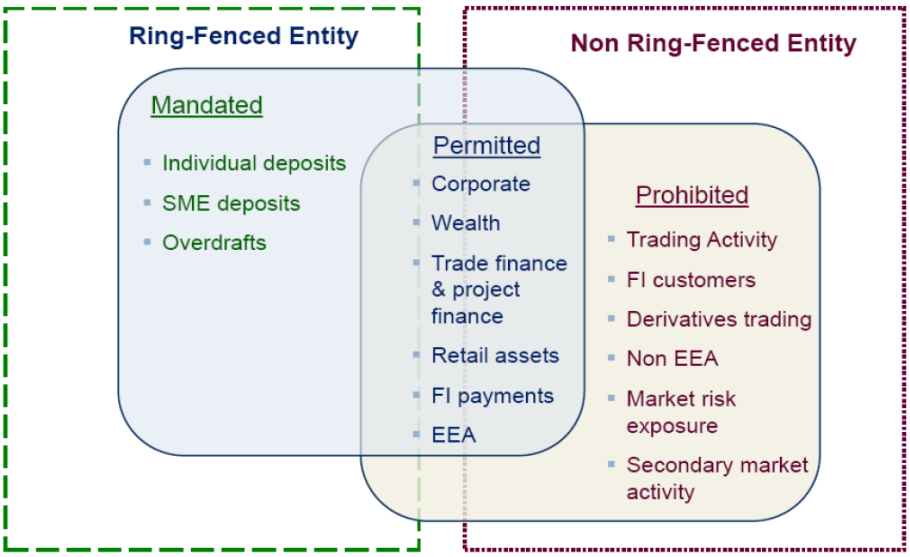
(Total 8 marks)

QUESTION 8

In order to reduce the likelihood of a future banking crisis on the scale of the 2007-08 event, governments and banking regulators have been concerned to insulate retail and commercial banking activities from the perceived excesses of investment banking.

In the UK the recommendations of the Independent Banking Commission (ICB: Vickers Report) require UK banks to ring-fence those activities of banking groups which the Government considers essential for economic stability, in order to hedge against the risk of investment banking activity triggering a bank failure:

Vickers (ICB) Ring- fence

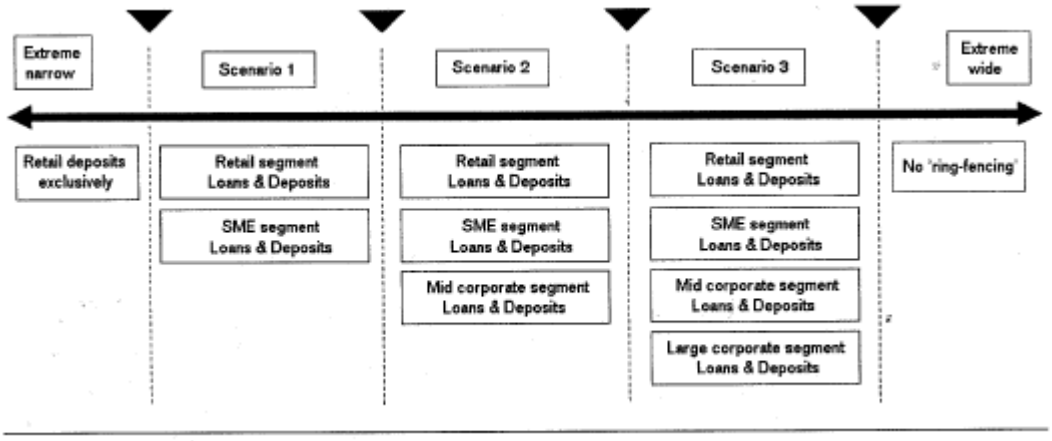


Source: ICB/ALMA 2012

The ring-fence boundary is flexible, as shown in the diagram above. However, once the boundaries are drawn each part of the bank must treat the other at arm's length as if it were a third party.

The figure below sets out three potential scenarios for UK banks ring-fenced according to the ICB recommendations.

UK Banks: potential scenarios for the ring fenced entity



Source: Credit Suisse estimates

Analysts expect to see each of the three main scenarios above adopted by at least one of the major UK banking groups.

As an alternative to Vickers, the EU sponsored Liikanen Review suggests ring-fencing the trading rather than the retail/commercial activities of banks. In addition it proposes extra capital buffers for trading activities and improved governance including limits on the use of insured deposits for "excessively risky" business.

In the US banking groups have been forbidden to engage in proprietary trading, ie trading securities solely for the banks gain.

Required:

What are the implications for corporate treasurers of non-financial services companies if these changes are implemented?

(12 marks)

ADVANCED DIPLOMA

GENERAL EXAMINATION - NOTE FORM ANSWERS

APRIL 2013

QUESTION 1: **(25.2 mins, 14 marks)**

(Marking scheme: more subjective but ⅓ mark for each good point)

i) For valuation purposes – until cash flows become stable
For providing debt repayment – until debt is repaid.
Probably full project therefore.

(2.7 mins, 1.5 marks)

ii) To match typical project life so probably 10-years at least. Also more stable over time – consistent basis for appraisal. Might be difficult in some countries where no real bond market exists. Perhaps use index linked bonds for a real return approach.

(2.7 mins, 1.5 marks)

iii) Forecast rate on newly-issued debt (ie marginal cost is more relevant to future years than historical cost. But if current rates unusually low/high an average might give a stable and relevant figure.

(2.7 mins, 1.5 marks)

iv) Effective tax rate (P&L tax dividend by PBT) is easy to establish but it is the wrong rate technically eg the P&L tax charge is a provision which often includes deferred tax. But it is also the tax rate on the equity profits not on debt interest. The marginal tax rate on the company's actual borrowings is more correct (the weighted average tax rate that applies to debt interest) – should be higher than effective rate because of tax management of debt. Complex in multi nationals.

(4.5 mins, 2.5 marks)

v) Book equity is always wrong – required returns for shareholders are based on the market price they paid for shares not the book value.

Book value of debt is allowable since even fixed rate debt, where value will fluctuate with interest rates, has to be repaid at par. But use market value of debt if it is "permanently distressed" below its par value.
Best is company's target debt/equity, ratio based on market values.
Current debt/equity ratio may well be a typical.

Note that "gearing" here relates to the relative proportions of debt and equity for calculation of WACC. Other "gearing" measures such as net debt/EBITDA are used in other contexts.

(5.4 mins, 3 marks)

vi) To allow for "lazy capital", negative and low IRR projects etc. But also to allow for higher than average risk projects. Others stick with the same WACC for consistency across the whole company, irrespective of project differences eg risk. A single nominal WACC cannot be applied internationally because of different levels of inflation. Some companies have very different lines of business where one WACC is inappropriate. More than one WACC might be difficult to communicate to management, where concept is difficult anyway.

(7.2 mins, 4 marks)

QUESTION 2: (43.2 mins, 24 marks)

2a) (18.0 mins, 10 marks)

(Marking scheme: ⅓ mark for each good point)

Construction risk (cost [1] or time over-run) [2] – fixed price contract [3] with liquidated damages. [4] Penalties for delays [5] /incentives to finish on time. Also performance [6] bond from bankers – North East Builders. [7] Design and build contract by NEB. [8]

Failure of equity partners [9] to come up with their contributions to subordinated debt on completion of construction – bank guarantees [10] for respective partners with counter indemnities from the partners' banks [11] – risk on partners and banks. [12]

Demand for the accommodation [13] – payment on "availability" [14] rather than actual residents "from the local authority" [14] – by City Council [15] if they agree. Otherwise risk is on Care Homes [16] to manage voids – they pay rent to SPV irrespective of profitability of the business. Mitigate by economic and business assessment. [17] Bad debts and operating costs [18] – Care Homes at [19] risk but viability a threat to [20] payment of rent to SPV to cover interest. Welfare reform is the big risk here plus public sector cuts. [21]

Pricing issues over the project life as inflation renders historic costings useless – use minimum return or profitability criteria, ensure income and costs are matched – essentially for NCC to bear the risk but Care Homes to be efficient. Price increases are often linked to RPI or CPI by regulation.

Failure of Care Homes to operate the facility effectively/provide [22] good service. Tight operating [23] contract with defined KPIs on service level, quality etc. – on Care Homes. [24]

Failure or defects in the built [25] facility or poor maintenance of the facility – tight maintenance contract [26] on NEB with defined KPIs.

Counter-party risk - failure of either NEB [27] or CH – step-in rights [28] for banks and/or City Council to replace deficient partners.

Failure of specialist care provider – NCC, step-in rights.

Interest rate risk [29] – financial hedges [30] – SPV and banks [31]
Liquidity/cash flow [32] risks – SPV – overdraft or similar [33]
Change in low/government [34] policy – NCC [35]
Issues on residual risk.

2b) **(10.8 mins, 6 marks)**

(Marking scheme: ½ mark for each key bit of calculation but maximum 3 marks for non-financial part of answer)

Version i)

Tax status unknown so assume no tax (attempted by most candidates)
Sub debt at 11% on 11m = 1.21m
Blended return of 13% on 12m = 1.56m
Therefore approximate return on equity = 0.35 on 1m = 35%
IRR on that project funding = 9.75% x 120m = 11.7m
Therefore return on senior debt = (11.7 – 1.56) / 108 = 9.39%

Version ii)

Allowing for tax at, say, 24% (attempted by one or two candidates)
Sub debt at (11% x 0.76) = 8.36%, gives after tax cost of £0.9196
Assume blended return of 13% on 12m is after tax, ie 1.56m
So return on equity is 1.56m – 0.9196m = 0.6404m
Therefore after-tax return on equity = 0.6404/1 = 64%
Assume project IRR of 9.75% is also after tax
IRR on that project funding – 9.75& x 120m = 11.7m
Therefore after-tax cost of debt = 11.7m – 1.56m = 10.14m
Interest rate therefore 10.14/108 = 9.39 (as above) after tax
Pre-tax rate = 12.35%

Note this is higher than the subordinated rate which seems unlikely although the instrument is hardly arm's length as it contributed in the same proportions as the equity.

NB. 3 marks (9 good points for calculations, but a bonus mark if after tax version done reasonably well

	"No tax" Return		%		
Equity	35%	1m	0.833%	-	pure risk capital, [10] first in, last out [11]
Sub-debt	11%	11m	9.167%	-	quasi-equity, [12] second in, second last out (usually) [13]
			10.0%		
					Less than majority [14] stakes to keep it off balance sheet
					Minimum acceptable amount to satisfy

			the banks and achieve acceptable interest cover. [15]
Senior debt 9.39% 108m	90%	-	Maximum debt, on conventional terms,[16] to achieve maximum tax efficiency. Maximum asset security and covenants, general documentation, [17] etc. The senior lenders have control effectively. [18]

Equity is subordinated to sub-debt which, in turn, is subordinated to senior debt – in terms of timing of subscription, [19] timing of repayments, timing of dividends/interest. In this case there is a bridging loan to cover the sub-debt amount during the construction period – unusual. Effect is to help the cash flow and reduce the early stage risk for the three partners.

Senior lenders particularly will control amount and timing of [20] dividends to the equity partners.

2c) (7.2 mins,4 marks)

(Marking scheme: ⅓ mark for each good point)

Note that a major benefit of gaining this contract for NEB and Care Homes is the construction contract for NEB (up front) and the care contract (long term annuity type) that they will gain and which is their bread and butter work. Arguably the equity/sub debt is the price they pay to get the contracts.

A higher residual value reduces the annual cost of the facility to NCC, thereby increasing the [1] chances of the bid succeeding, which is beneficial to NEB because of the value of the construction [2] and maintenance contract(s). It also reduces the level of annual loan repayments thereby reducing the pressures on the SPV's cash flows, thereby reducing the risk to NEB's equity and sub-debt. [3]
In summary a higher RV is all good for NEB. [4]

The advantages of winning the tender also apply to Care Homes [5] re the value of the management contract, also the reduced risk to their partner [6] investments. But a higher guaranteed "residual value" is payable [7] by Care Homes, with the risk that the market value might be less [8] than the RV so Care Homes over-pay for the assets. A lower RV means that, if the market value is higher, Care Homes pay [9] half of this additional amount to NCC (the "overage") and they get a capital gain [10] on the other half.

In summary a higher RV reduces the potential upside [11] and increases the downside [12] risk for Care Homes. (It increases the guaranteed upside for NCC who carry no downside risk).

eg

residual value	market value	payment by Care Homes	(loss)/gain to Care Homes
100	100	100	0
100	80	100	(20)
80	100	90	10
80	80	80	0
80	60	80	(20)

2d) **(7.2 mins, 4 marks)**

(Marking scheme: ⅓ mark for each good point)

We need the work [1] – construction contract will be a good percentage of the £120m total cost at, say, 10% profit margin = £12m. [2] Significant in relation to our turnover of £158m and operating profit of £12.8m. [3]

Continuing maintenance contract worth maybe 1% of £120m [4] = £1.2m.
Return of 13% compound on 25% of £12m = £390k [5] (back end loaded, of course).

Risks – this is business as usual for us. [6] But £350k [7] costs of failed tender are significant. Also £4m is a significant [8] investment for NEB in relation to existing debt of £7.2m but we have more than adequate cash balances of £25.4m. [9] We will be expected to give various non-financial guarantees and assurances, [10] including bid and performance bonds [11] required from our banks which add to the total facilities.

The equity/sub-debt investment has a long tail – [12] when are we allowed to sell it if at all?

We are very much at risk on our counter-party partners especially Care [13] Homes (check out credit status and track record).

QUESTION 3: **(23.4 mins, 13 marks)**

3a) **(7.2 mins, 4 marks)**

(Marking scheme: ⅓ mark for each good point)

<u>Schooner</u>

Prices up 33% [1] from October to January 26th, on a rising trend (good results [2] ? acquisitions made ? [3] bid speculation ?) [4] Main increase is in October and November towards the half year mark [5] (June period end so interim results were probably announced in September) so good results anticipated? 40% is often quoted as a minimum required acquisition premium so 33% a bit low. [6] Successful bid was much higher. The bid price was 47% up on the immediate pre-bid price and 95% on the price 4 months earlier – a handsome premium – so maybe the bid was not anticipated. [7]

Albion

Albion's price fell 1.3% [8] on announcement of their bid – concerns that they may be paying too [9] much and might get involved in a bidding war with Stein [10] (bid price is 81% up on price of 26th January before either bid). However Schooner is only a small acquisition for Albion in money terms. [11]

But six days later it was up 4.2% (2.9% on the pre-bid price) so presumably the market is now happy [12] with the medium term strategic benefits of the merger and the absence of a second bid by Stein. [13]

NB The bid was debt financed so no new shares to dilute the equity.

3b) **(7.2 mins, 4 marks)**

(Marking scheme: ⅓ mark for each good point)

Market Capitalisation Values (£m)

	Schooner [1]			Albion		Combined	% Change
	Shares 33.341			Shares 728.622			
26 Jan	@ $23.19[2]	$773[3]	486	@ 37.50 [4]	£27,323	£27,809	
15 Feb	@ $33.92	$1131	£711	@ 37.51	£27,331	£28,042	+0.84
16 Feb	@ $43.76	$1459	£917	@37.04	£26,988	£27,905	- 0.49
22 Feb	@ $41.90	$1397	£878	@ 38.59	£28,118	£28,996	+3.91
Period change			+ 392		+ 795	+ 1,187 [5]	+4.27

NB Exchange rate = 880 / 1400 = 0.62857 [6] (1.5909)

The 16th February combined value is very [7] similar to that for the 15th February, before Albion's bid (down £137m).
The increase in the bid value of Schooner (+ £206m) is more than offset by the fall in Albion's value (- £343m). In theory a zero change would indicate that the market did not anticipate any positive synergies [8] or destruction of value from the merged businesses.

By 22nd February the overall increase in total market value is £1.187m [9] (+ 4.3%) while Schooner is up £392 (80.7%) and Albion up £795 (2.9%). (For comparison the FTSE fell by 0.27%, hardly moving at all). [10] The market seems to like the bid even at this high price and P/E, [11] but Albion's share price will fall if the likely benefits of the merger prove illusory. [12]

3c) **(9.0 mins, 5 marks)**

(Marking scheme: ⅓ mark for each good point)

Current forecast eps for Albion 2013 = £2.47 [1]
Estimated number of shares = 730.611 million [2] (increasing at same rate as last year, but no need to be precise.
Current forecast earnings therefore £1804.6 [3] million (Note 3.4% up on 2012)

Current forecast eps for Schooner = $0.94
Estimated number of shares = 33.652 million [4] (again, approximation is fine)
Current forecast earnings therefore = $31.633m [5] = £19.9m [6]

Required debt funding = £880m
Average interest rate paid by Albion = 32/2508 = 1.28% - very low! Effective tax rate of Albion = 26.3%. Assume marginal rate is 30. [7] [8]
Assume interest rate 4%, after tax = 2.8%
Impact on earnings = £880m x 2.8% = £24.64m [9]

Estimated cost savings of £25m – assume maybe [10] half is achievable before September 2013 – after tax @ 39.8% = £7.53m [11] (assuming US tax rate applies) [12]

Forecast earnings = 1804.6 + 19.9 – 24.6 + 7.53 = £1807.4m [13]
eps = 1807.4 / 730.611 = £2.474 [14]

Only just avoids [15] dilution because of the high price and high exit P/E multiple, based on forecast earnings for Schooner, (P/E = 1400 / 31.633 = 44.3). Earnings yield (reciprocal) = 2.26%, lower than the assumed after-tax cost [16] of debt. The possible improvement in eps is marginal. The strategic benefits in the medium term are more important.

NB The actual range of market estimates of eps at this point was 2.13 to 2.70, average 2.4895.

QUESTION 4: (21.6 mins, 12 marks)

4a) (i) Cost of not using CSA (1.8 mins, 1 mark)

(Marking scheme: right answer = 1 mark, wrong = Ø).

Assuming EUR 50m IRS for 5 years, the cost of not having a CSA and paying the premium would be:

10 bps x EUR 50m

= EUR 50,000 pa

4a) (ii) Is it worth choosing to pay a premium? (5.4 mins, 3 marks)

(Marking scheme: looking for evidence of assessing the materiality of a CSA collateral call (cost, liquidity compared with the premium cost calculated at (i)).

Whether it is worthwhile or not depends on the (i) cost of funding collateral calls, (ii) ability to fund if calls are very spikey.

Here is a basic materiality check with round numbers. If rates fall, FJB's swap is in the money, so there will be no collateral call from the bank, but if rates rise there will. Therefore, assume a rise in the relevant swap rate of 1% from, say, 3% to 4% and a collateral funding cost of 4.50%:

Residual Life of Swap Years	Collateral* EUR '000	Funding Cost pa EUR '000
5	2,226	100
4	1,815	82
3	1,388	62
2	943	42
1	481	22

Note: * PV of 1% discounted at swap rate for residual life.

For companies in general and for these relatively low interest rates, the CSA premium would appear to be preferable from a cost standpoint ('though the low cost of the premium relative to the collateral call cost possibly signifies the low probability of a rate rise now).

However, FJB is a charity and likely to be long cash. So the collateral cost is the opportunity cost of the cash, ie probably the deposit rate with a bank. But FJB should earn the deposit rate on the collateral with the bank, with possibly a small reduction for carry cost, so opportunity cost may be much less than the 4.50% assumed in the table. So in FJB's case it is unlikely that they would want to pay the extra fee to the bank, especially as collateral spikeyness is unlikely to be an issue for them.

4b) Feasibility of futures, rating (9.0 mins, 5 marks)

(Marking scheme: for (i) looking for understanding of the features of futures versus OTC swap and for (ii) the fact that a bank should not need a rating to assess the credit risk of an entity like JFB).

(i) Futures would have a lower credit spread.

Futures have margining so the issue is not avoided. Other issues would be maturities available, difficulty of getting an efficient hedge and the administration involved.

(ii) Similar large charitable foundations, eg Gates, Harvard, merit AAA rating.

If FJB has an AAA rating it would have a good basis for resisting collateral calls. However banks do not (or SHOULD NOT!) require a rating to assess credit risk. FJB is big enough to have the expertise to negotiate a CSA limit high enough to absorb the less spikey calls or alternatively use several swap providers and negotiate a CSA limit with each.

4c) Liquidity premium argument (5.4 mins, 3 marks)

(Marking scheme: looking for realisation that technically this argument is unsound. Extra points if the new regulatory regime is spotted as the possible explanation).

This argument ignores the counterparty on the other side of the swap bank which is paying the bank fixed and receiving floating and the cash flows are built into the swap price. This sounds like either a misunderstanding or mis-selling!

What the bank may be alluding to is the liquidity cost of funding an adverse MTM position with a bank's derivative counterparty which fails to honour a collateral call. Banks have to stress test for this eventuality and provide for it in anticipation of the hypothetical stress test materialising.

QUESTION 5: (16.2 mins, 9 marks)

(Marking scheme: number of credible points, quality of comments. For 5.a., to pass 5 pros, 5 cons; for 5.b., to pass 3 points).

5a) Retail Bond Alternative to Bank Debt (10.8 mins, 6 marks)

A rapidly growing e-retail business is likely to be perceived by a bank lender as at the more risky end of the credit spectrum; and most banks are emerging from the financial crisis with much reduced lending capacity.
So it is prudent for the Chief Executive to seek out other sources of funding. The pros and cons include:

Pros

- Second unrelated source of funds
- Available growing market
- Investor appetite for yield (implied acceptance of some risk)
- Develops corporate funding expertise
- Looser documentation
- No cross sell pressure from banks
- Don't need a rating
- Interest fixed without derivative collateral exposure

Cons

- Less flexible
- Immediate draw down so use to refinance or else need to warehouse
- Bullet repayment so higher refinance risk
- Public scrutiny
- Need to manage investor relations
- Issue fee/costs
- Not underwritten so if undersold, bad for image
- Not floating rate interest
- Dual impact of customer desertion if bond servicing/repayment ability is questioned publicly in the press . . . . leading to bank lender concerns about falling trade levels.

On balance possibly useful in small amounts but give high regard to reputational and refinancing risk.

5b) Retail Bond to Develop Customer Loyalty (5.4 mins, 3 marks)

Retail bond investors are characterised as absolute return rather than relative value. They are influenced by "name" and may not be skilled at fundamental analysis.

So the bond may well generate interest and sell.

However, if the company has a problem with performance which attracts adverse press comments then it could ultimately do a lot more harm than good.

It is interesting that there are no high street retailers on the ORB issue list.

Some of the bank issues consist of existing bonds grandfathered into the retail bond sector. Tesco Bank has recently issued into the market. However the large supermarket chains like Tesco do have good name recognition, are perceived as trustworthy and have financial substance. Less well established retail issuers could be running a reputational risk.

QUESTION 6: (14.4 mins, 8 marks)

(Marking scheme: number of credible points, quality of comments. For 6.a. 5 points, for 6.b. 3 points).

Observations

Propinvestment exemplifies one of the shortcomings of the ORB market: issuers/issues are typically unrated and in most cases there is no independent credit risk opinion available. This is a particularly acute issue here because this is a specialist property investment company with individual properties ringfenced in terms of funding and security. The issuer is the holding company and the detail of the legal/financial relationships within the Group are not clear from the information provided.

You are the representative of the pension company shareholders. The company is formally committed to eliminating the pension fund deficit over ten years and in the meantime material change to the nature of the business is constrained. The company's shareholders will not wish to see their exposure to the pension deficit increase because of aggressive investment but they also have an interest in eliminating the deficit as soon as possible to remove potential constraint on the future development of the business.

The pension fund is closed and relatively mature, probably focusing now on stable low returns.

6a) PropInvest Issue Risk (9.0 mins, 5 marks)

The risks you would need to raise with the Investment Committee are:

- The lack of an independent credit opinion for the issuer
- Lack of transparency about how the unsecured bondholders of the Holding Company would fare, were the issuer to fail, given the ringfenced nature of the subsidiaries
- Structural subordination of these unsecured bonds
- Double leveraging via the subsidiaries

- This bond is property-related and subject to revaluation risk at a time when both the UK and Europe are still facing a very uncertain future.

Having said all that, property investment can be a low risk business if there is a quality rent roll and the company has survived the financial crisis.

6b) Additional Information (5.4 mins, 3 marks)

- Propinvestment business model
- Purpose of issue: is it to directly fund growth at subsidiary level, maintain LTV ratio at Group level as the Group expands, fund share buybacks?
- Clarity about the Holding Company structure, subsidiary arrangements with funders for each property and where these bonds rank in the event of failure
- Comment from the Investor Committee, given information on the above, about how this investment fits with the pension fund's asset investment policy.

QUESTION 7: (14.4 mins, 8 marks)

7a) Net investment risk (3.6 mins, 2 marks)

(Marking scheme: For pass, mention of equity exposure plus intra-group debt; if latter not mentioned in part (a) but implied in part (b), credit given).
Net investment currency risk is another name for currency translation risk of the balance sheet rather than the profit and loss account.

It comprises:
- equity investment in overseas operations funded with parent company currency
- overseas retained earnings
- intra-group debt from the parent company
- (- less cash held in overseas entity denominated in parent company currency)

The value of these items will change if the overseas currency exchange rate changes.

7b) Source, hedge (5.4 mins, 3 marks)

(Marking scheme: 1 mark for comments about equity and intra-group debt, 1 mark for comments about structural hedge, 1 mark for comments about financial market hedge.)

The risk is that on consolidation a fall in value of the overseas currency against the parent company currency results in a write-down of the parent company's assets and therefore its shareholders' equity.

Hedges:
- fund overseas entity's assets locally, with debt if feasible
- maximise dividend and/or fees to reduce retained earnings
- use a cross currency interest rate swap, if available
- increase product pricing overseas to compensate, if

competition allows

Caveat: - you may not wish to hedge it if you know that shareholders invest in the company's equity because they want this risk.

7c) Quotation? (5.4 mins, 3 marks)

(Marking scheme: To pass, expecting a "yes", a "no" or a qualified version of either, plus two credible points with some discussion.)

Non-structural hedging just kicks the can down the road. And it may be that shareholders want this exposure for portfolio purposes.

However, it could be that for appearances sake (eg ratio covenants) postponement of the inevitable is worth the cost at this point in time.

So, a qualified agreement . . . . .

What actually happens? It is usually difficult to get the financial products needed in countries with a long term decline, so probably expensive and probably not worth it . . . . so again an agreement.

QUESTION 8: (14.4 mins, 8 marks)

(Marking scheme: circa 10 credible points plus quality of explanation. There were 12 marks for this question and it was the last one, so some students were probably short of time. For whatever reason some produced only half a page of text and unless the quality and focus of comments is exceptional this is unlikely to earn 6 marks for a pass.)

Implications for Corporate Treasurers of Ring-Fencing Banks

Two ways of tackling this Question:

- list of random bullets
- treat by classifying features of the corporate-bank interface

Taking the second way:

- Overall banking relationship:
  - without even considering ring-fencing (RF), banks will need more capital and more liquidity, so lending/credit-risk-related products will be less available and more expensive. With RF, the non-RF bank in the group will be largely/entirely wholesale funded: so if large corporate business goes into the non-RF bank the availability of credit related products may be even more problematic.

    Therefore corporates may need to deal with more banks including non-UK/non-EU banks.
    Corporates may also need to look beyond banks to non-bank financial intermediaries.

- Global integration:
  - as with corporates, banks had been working towards the holy grail of integrated global operations. This was always resisted by bank regulators, in the interests of protecting their domestic depositors from contagion due to failures in parts of a banking group operating in other countries. Paradoxically, just as corporates are becoming ever more global, banks are being forced by shortage of financial resources and by banking regulators to operate on a self-contained country by country basis. Some banks already worked to that business model (eg Santander) but were very much the exception.

- Disintermediation of bank lending:
  - as happened after the introduction of Basel 1 in the 1990s, corporate funding by banks has been disintermediated once again by Basel 3 because of huge changes in capital and liquidity rules. Corporate borrowers have had to shift to capital markets or to non-bank financial intermediaries. Nowhere has this shift been so rapid or so dramatic as in the UK social housing sector, traditionally funded by thirty year syndicated loans swapped to fixed.

- Derivatives:
  - some of the shocks during the financial crisis arose from unexpectedly large movements in mark to market contract values covered by collateral agreements, eg long-term interest rate swaps. Regulators are keen to drive these products from OTC to exchange traded. The regulatory cost to banks of financing OTC positions in anticipation of extreme stresses is being set deliberately high to discourage their use. Derivatives will go into the non-RF bank which may be less able/willing to support this business in the future.

- Deposits:
  - counterparty risk is already an issue for many cash rich large corporates. Regulators have shown unexpected enthusiasm recently for letting depositors take some of the strain in bank rescues and if this continues to be the practice corporate deposits are likely to get hit before retail. So whether depos are in the RF or non-RF bank they may be at higher risk than previously and it is not clear yet which place is preferable.

    So this area will continue to need careful evaluation by corporate depositors and government stock may provide some useful diversification.

- Cash Management:
  - ring-fencing together with country by country self-contained regulation may render some aspects of pooling and netting problematic.

Examiner's Report

Advanced Diploma - April 2013

OVERVIEW

	General Exam	Case Exam	Combined
Marks	47.8%	57.8%	52.8%
Questions	8	8	16
Students	18	16	34
Pass #	7	12	19
Pass %	39%	75%	54%

Range of marks 31.9% to 72.2% 44.3% to 73.1%

N.B. For original marking purposes the pass mark discussed here is 50%.

This was a good set of results overall, with the range of marks and the average mark a few points higher than for some time. The average mark and pass rate on the case exam were particularly good. The general distribution of the marks across the two papers was very good, but it revealed three very distinct constituencies – the top 29% achieved marks of 60 or above, the “middle slice” of 44% of candidates achieved marks between 45 and 57, but the remaining 27% achieved marks between 32% and 45%. One excellent candidate achieved an average mark of 70.6%.

We have detailed the results by question, which show that some questions had very low pass rates and very low average marks;

General exam	marks available	passes out of 18	average mark
Q1 (GI)	14	13	58%
Q2 (GI)	24	6	42%
Q3 (GI)	13	9	48%
Q4 (JB)	12	7	40%
Q5 (JB)	9	12	53%
Q6 (JB)	8	9	49%
Q7 (JB)	8	10	54%
Q8 (JB)	12	8	46%
Case exam	**marks available**	**passes out of 16**	**average mark**
Q1 (GI)	12	10	54%
Q2 (GI)	10	11	56%
Q3 (JB)	13	13	56%
Q4 (GI)	12	13	66%
Q5 (GI)	12	13	66%
Q6 (GI)	12	8	50%
Q7 (JB)	17	13	59%
Q8 (JB)	12	8	53%

Corporate Finance and Funding Summary (both papers)

Overall the quality of answers on the eight corporate finance and funding questions across the two papers (109 marks out of 200) was much better than in recent years. The average mark was 53.7% with 12 passes plus 3 marginal passes out of the 19 candidates. Two candidates were at distinction level but 3 of the clear fails were bad fails with marks in the 30s.

Treasury and Risk Management Summary (both papers)

There were eight questions on treasury and risk management across the two papers (91 marks out of 200). Unusually the marks were poorer on TRM than on CFF and worse than in previous years. The average mark for the 19 candidates was reasonable at 51.5% but only 9 of the 19 candidates passed, but with another 6 marginal passes. Again there were two distinction level candidates. There were 2 bad fails but not the same as those in CF&F. The most significant and unusual feature of the distribution was the 42% of candidates achieving scores in the 40s.

Examiner's Report - General Examination

Question 1 **Critical review of a survey of investment appraisal methodologies.**

This was a straight-forward but technical question asking for views on best practice in relation to six aspects of investment appraisal such as the detailed, practical calculation and use of WACCs and cash flow forecasts. It was very well answered, whereas such technical issues have not been satisfactorily dealt with in recent examination papers.

Question 2 **A very demanding project finance question.**

Part 2a – review of risks for the project SPV. The average mark here was 44%, one of the problems being that some candidates did not focus exclusively on the risks for the project company, as asked for in the question – it was all too easy to go on and on about all kinds of risks for the various parties involved in the project, but this was not asked for.

Part 2b – derive the rates of return on the different tranches of finance, given a project IRR, the composite return on equity plus sub-debt, and the capital structure (53% average mark). This was generally well answered and some candidates even did the calculations after tax (much harder and strictly correct, although the some of the parties were non-tax-paying.) A brief description of the respective nature and function of the different tranches of finance was also required.

Part 2c – this was a tough technical question about the risk-return implications for the various parties of a very technical clause in the documentation i.e. a disposal price in the bidding procedure that shifted the balance of upside and downside risks for the different parties but in different ways. Candidates did find this very hard to get their heads round in examination conditions (average mark 25%). Four candidates passed, four passed up the question and the rest failed.

Part 2d – this was about the attractions and the risks of the contract for the construction company who is also an equity partner. The average score was 36% and main weaknesses were a failure to summarise the effect of the construction company's various involvements, failure to relate the size of their involvement in the project with the scale of their existing business, and failure to refer to the state of the economy and the construction business, all of which

information was given in the pre-amble to the question.

<u>Question 3</u> Based on a contested bid for a US company, this question was about understanding share-price movements, value creation and impact on eps.

Part 3a. This only carried 4 marks but most candidates wrote very little about why the share prices of the two companies moved as they did throughout the course of the bid and therefore the average mark was only 42%. The main factors were the earnings performance and growth mainly of the target company, the market's anticipation of future bids and the markets assessment of the attractiveness of the bid to the acquirer at the bid price.

Part 3b. Candidates achieved an average mark of 61% on this question, reflecting some good understanding about creation of value (or not) in acquisitions. Some candidates were good on the numbers while others were good on the value-creation logic, and about five candidates put the two parts together.

Part 3c was a straight-forward calculation of the forecast eps for the acquiror after the completion of the deal. The average mark was 44% with only nine passes. The main observation was that most candidates did not have a clear understanding of the structure of the calculation and/or poor numerical and estimation skills.

The logic is as follows; go from current eps forecast for the acquirer to current earnings forecast via number of shares, allowing for normal increment in number of shares. Do same for target, translating from USD, of course and add to earnings. Deduct estimated after-tax interest (assumptions of UK tax rate and interest rate are required based on data in the question). Add estimated cost savings after US tax. Answer – just avoids dilution despite very high P/E because only a small acquisition.

Summary of Questions 1, 2 and 3, General Exam (51 marks) – Corporate Finance and Funding.

Overall 9/18 passes, average mark 48.0%, range 25% to 74%. The demanding project finance question and the merger-based question were not straight-forward and required some careful reading plus clear thinking, which clearly defeated some candidates and led to dropped marks for others. Unfortunately real life treasury jobs often throws up similarly unfamiliar problems and situations which require careful reading, clear thinking and the application of fundamental finance and treasury principles. This is just as important as being able to deal with more familiar, predictable problems which nevertheless still require sound and efficient technical analysis – like many of the questions in the case exam!

Question 4 About Interest Rate Swaps: Paying a Premium on the Rate versus CSA, Using Futures, Bank's Request for Liquidity Premium.

What should have been a relatively straightforward Question yielded only 7 passes out of eighteen students, the lowest on this part of the Paper. A large charitable foundation hedging the income on LIBOR-linked assets can either sign a Credit Support Agreement which defines collateral call terms or pay a fixed premium on the swap rate, thus avoiding the possible provision of collateral. Part (a) asked if the premium alternative seemed worthwhile, given some data provided. The issue is whether it is better to pay the premium to avoid a collateral call in terms of cost and the possible spikeyness of a call in liquidity terms. There is not a right or wrong answer as it depends on the future yield curve. However, the materiality of any likely call is an obvious factor and surprisingly few candidates attempted to check this out. The pass rate was 11/18. Part (b) was about whether using futures might be more desirable or whether getting a rating would pre-empt the need for a CSA – both possibilities suggested by the CFO – pass rate 6/18. Part (c) quoted a banker's alleged argument that a positive yield curve represents an embedded loan by the swap bank in the early years which justifies a liquidity premium – pass rate 9/18.

Question 5 **Debate about (a) whether a retail bond issue on LSE's ORB market would be a wise diversification of funding sources for a bank-funded e-retailer and (b) whether it would create customer goodwill.**

On this Question the pass rate was 12/18, in contrast to Q4 the highest on this part of the paper. In essence, the first part is about the difference between bank and capital market debt, eg full draw down at start, bullet repayment, fixed rate, but also with some factors specific to ORB, eg lowish amounts, not underwritten. Part (b) is about the reputational risk to the company as a retailer if the bonds do not perform well. A topical Question, answered reasonably well.

Question 6 **An ORB issue by a property investment company and its suitability as an investment for a "closed to new members", relatively mature defined benefit pension scheme.**

This was a relatively difficult Question so in the context of overall performance on the paper the pass rate of 9 overall on the Question and 9, 11 on parts (a), (b) was quite respectable. Part (a) is not so much about the ORB market as about the credit risk of the issuer and in particular where the unsecured ORB bond sits in the pecking order of funders to the issuer in the event of failure.

The second part is an articulation of what more you would need to know about the issuer's business model, the issuer subsidiaries' borrowing relationships with their banks and the asset investment criteria of the pension fund.

Students who failed part (b) also all failed part (a).

Question 7 **Net Investment Currency Risk: Definition, How It Arises, How It Is Hedged and Whether It Should be Hedged.**

A short 8-mark, three part Question on a fundamental currency risk issue, but one which has been answered poorly in the past – hence its inclusion again here. Definitions when requested in Part (a) tended to omit intra-group debt but some students implied its relevance in Part (b) when discussing hedging (thus getting credit in marking terms). Pass on Part (a) 6/18 but on Part (b) hedging 14/18 – best on this part of the Paper. The last para asked about the wisdom of hedging if the currency was deemed to be in long term decline and this part was generally well answered – 10/18 passes.

<u>Question 8</u> Impact of the Proposal Ring-fencing of UK Commercial or Corporate Treasuries.

Another topical Question which has had a lot of press but which required some "from first principles" thinking. The Basel 3 rules, currently in the implementation stage, generally render bank credit more expensive and less available. Because banks have some discretion about where the ring-fence sits, and the discretion tends to be exercised around the boundary between middle market and large market corporates, it is a little difficult to generalise. On balance ring-fencing is probably less desirable from a large corporate point of view although in practice each banking relationship needs to be judged on its own merits. So this was a Question which some students found quite difficult and which others may have "timed out" on given the very short responses. Passes 8/18.

<u>Summary of Questions 4, 5, 6, 7 and 8, General Exam (49 marks) – Treasury & Risk Management.</u>

Overall 7/18 passes, average mark 48%, range 30% to 71%. These marks are similar to those for the Corporate Finance section of the Paper, except that untypically the pass rate is lower on this section. The five Questions set were quite varied and three required some "first principles" thinking. However two (Q4, 7) were about fairly basic issues and might have provided some more badly needed marks for students on the pass/fail borderline.