TREASURY, RISK
AND FINANCE
PROFESSIONALS

The Association of Corporate Treasurers

Examination Paper, Solutions and Examiner's report

Paper: MCT Case Study Exam

APRIL 2010

You are required to answer ALL 7 questions.
(All questions relate to the TIG Case Study)

QUESTION 1 **[Total 10 marks]**

Required:

(a) Identify which stage of the product market cycle the company's business is at and give your reasons.

(2 marks)

(b) What are the main implications for sales/market strategy, financial management, corporate finance and shareholder value management?

(8 marks)

QUESTION 2 **[Total 18 marks]**

Required:

(a) Calculate a forward-looking weighted average cost of capital for the company, being careful to spell out any assumptions you need to make.

(3 marks)

(b) Estimate the sustainable ungeared free cash flow (free cash flow to the firm) as at 2009 allowing for the expected growth in profit and sales. Give your reasoning on all items.

(7 marks)

(c) Calculate the enterprise value of the company as at 2008 based on your answers to questions (a) and (b).

(3 marks)

(d) Comment on any differences between your valuation and the recent market valuation of the company, and what they might mean for the valuation fundamentals.

(5 marks)

QUESTION 3 **[Total 10 marks]**

Required:

Given your responses to Questions 1 and 2, and considering the core subject areas of Treasury Management/Control, Corporate Finance, Funding, Liquidity and Risk Management, what would you consider to be the five most important issues within the corporate finance/treasury functions for the Company in the medium term? Justify your choices.
[The five issues you choose need not encompass all of the five core subject areas].

QUESTION 4 **[Total 8 marks]**

You have details of the equity risk metrics for the company for the last five years, using London Business School terminology and data, concerning the diversifiable and non-diversifiable components of overall risk.

	2005	2006	2007	2008	2009
Variability %	24.50	20.25	18.75	15.00	15.25
Beta	0.64	0.61	0.65	0.70	0.58
Specific Risk %	22.75	19.25	16.75	13.00	13.00

Required:

(a) **Explain briefly the three equity metrics and their role in corporate finance theory.**

(4 marks)

(b) **Using your knowledge of the company's recent history, the business and associated risks, particularly diversifiable versus non-diversifiable risks, comment on the likely reasons for the levels and trends in the various metrics.**

(4 marks)

QUESTION 5 **[Total 12 marks]**

You have been tasked to draft a funding policy for the company, bearing in mind your understanding of the company and its trading environment. As a preliminary you need to think about the funding topics that need to be covered and the company-related constraints and opportunities which will influence the casting of the funding policy. At this stage you are not being asked to write the detailed content of the funding policy.

Required:

(a) **Set out the dimensions of funding that you think should be covered in a funding policy document for this company.**

(5 marks)

(b) **Given the funding dimensions set out in your answer to (a), and with reference to the company's financial profile and business environment, identify the main considerations, constraints and opportunities which will be relevant when deciding the substance of the company's funding policy.**

(7 marks)

QUESTION 6 **[Total 32 marks]**

TIG plc is exposed to several typical treasury risks:

(1) interest rate risk
(2) counterparty risk
(3) currency transaction risk
(4) currency translation risk

Required:

For each of (1), (2), (3), and (4)

(a) Explain how the risk arises in TIG.

(1 mark per risk)

(b) How material is each type of risk for TIG? Where possible quantify and indicate the level of sensitivity.

(4 marks per risk)

(c) Identify the key policy dimensions for the management of each of these risks within TIG.

(3 marks per risk)

QUESTION 7 **[Total 10 marks]**

TIG's Finance Strategy is to "*drive world class, integrated financial performance management processes that support and challenge the business to deliver added value."*

Treasury is committed to support this strategy by achieving "best in class" performance across all areas of treasury activity by adopting and implementing a Treasury Change Programme.

While Treasury has already made significant progress, history and the complex corporate structure (a federal model) has allowed elements of decentralisation to persist in treasury. This has resulted in:

- a high number of banking relationships/accounts
- higher headcount
- specialist skills scarcity in some locations
- not fully integrated
- cash forecasts of variable quality
- restricted visibility of daily global cash positions
- restricted visibility of underlying fx exposures
- potential control weaknesses

The Treasury Change Programme goal is *"to implement a centralised Treasury operation with global reach operating across three time zones in partnership with Markets and Shared Service Centres to create less complex, streamlined and integrated processes that enables an effective and efficient Treasury function, which is fit for servicing our global business".*

Required:

What actions are required to achieve this goal?

Background information based on Tobacco International Group (TIG)

1.0 INTRODUCTION

Tobacco International Group (TIG) is the world's most international tobacco group. It was founded in 1902 and its brands are sold in more than 180 markets. It has factories in 40 countries, significant global interests in tobacco growing and employs approximately 53,000 people worldwide.

A financial profile of the company in 2008 is shown in Table 1.

Table 1: Financial Profile of Tobacco International Group for 2008

For the year ended 31 December	**2008 IFRS £m**
Income statement	
Gross turnover (including duty, excise and other taxes)	**33,921**
Revenue (after deducting duty, excise and other taxes)	**12,122**
Profit from operations	**3,572**
Profit before taxation	**3,684**
Profit for the year (before minority interest)	**2,659**
Profit for the year (attributable to shareholders)	**2,457**
Earnings per share	
- diluted adjusted	**128.78p**
As at 31 December	**2008 IFRS £m**
Debt (Net)	**9,891**
Debt credit rating	**BBB+**
Market capitalisation	**35,679**
Total 5-year shareholder return	**183%**
FTSE 100 Total 5 year shareholder return	**13%**

2.0 GLOBAL TOBACCO INDUSTRY

(This section includes extracts from a recent broker's report on the industry).

Top 4 companies hold 76% market share ex-China

The global tobacco industry is the most consolidated FMCG sector with four major companies holding an estimated 76% global market share (ex-China) based on volumes. Note too that none of the 4 directly hold a significant share of the US cigarette market (10% of global market ex-China) or the Indian market (3%) then their share of the remaining markets is c88%. Even then many of the North African markets remain under effective state control so the 'big 4' control over the 'free markets' is almost total.

Table 2: Comparative size of international tobacco producers, 2009

Company	Volume	Global market share	Share ex-China	Net Sales (US$)	EBITDA (US$)
TransAtlantic Corporation International (TCI)	853 billion	16%	26%	$24,410m	$11,030m
TIG	731 billion	13%	22%	$22,520m	$7,615m
Nippon International Tobacco (NIT)	588 billion	11%	18%	$16,325m	$5,260m
Majestic Tobacco	322 billion	6%	10%	$10,910m	$4,625m
Total 'Big 4'	2494 billion	46%	76%	$74,165m	$28,530m
TIG associates	163 billion	3%	5%		
BTC	2200 billion	40%	-		-
Bushmead Group	154 billion	3%	5%	$16,980m	$6,600m
All Others	441 billion	8%	14%	-	-
Global Market	5450 billion	100%	100%	-	-

Source: Company reports, UBS estimated. Figures above are for subsidiaries only and excl distribution and non-tobacco operations. US$1.6/£

'Big four' dominate most profitable non-US markets

In November 2007, we concluded that 'We believe further consolidation by the major international players is unlikely due to competition concerns, although a few bolt-on opportunities remain'. From the table above we give more precise details of some of the largest world markets by volume and the market shares of the major companies.

China remains closed. TCI reasonably well placed for other opportunities

We would note that China is a closed market dominated by state-owned companies and we believe it will be a significant amount of time before market opens up to competition. Elsewhere the Indian market is dominated by local companies and laws largely prevent new investment in the tobacco sector, and a direct acquisition of one of the major Indian companies appears unlikely. Elsewhere the acquisition of a major US cigarette producer with historic US tobacco litigation liability appears unlikely due to the detrimental impact this would have on the credit ratings of the acquirer. This would leave Indonesia, South Korea, Egypt and the Philippines as major markets where local companies still have significant market share where the international players can grow. Of these markets, it is noticeable that TCI has a double-digit market share in all of these, TIG is the number 2 in South Korea and has single digit market shares in Egypt and Indonesia.

2.1 Relative position of international players

1. Geographic profile

Global vs international companies

The four major tobacco companies can roughly be divided into two global companies (TIG and TCI) and two international companies (NIT and Majestic). There are a number of markets in which, due to political restrictions (eg China, India) or to political embargoes (Burma, North Korea), the major players do not have subsidiaries. In China, the industry is state-owned and in India the majors are represented by associates. In the US market, the majors attempt to avoid direct exposure to historic US tobacco litigation, since it would significantly impact a company's credit rating. TCI has no interest in the US market since its spin-off from Bushmead Group in March 2008, TIG has a 42% stake in Raleigh American since 2003, Majestic Tobacco acquired a small US cigarette producer (with no historic litigation liability) and the market leading cigar operation with Spartac whilst NIT has almost no exposure to the US market.

W. Europe still most important profit centre followed by Asia

The most important profit centre for the companies is Western Europe, which accounts for an average of 36% of global cigarette profits for the big four tobacco companies. However, the importance of Western Europe varies significantly between companies, since it represents only 14% of TIG's cigarette profits, compared to 28% for NIT, 45% for TCI and 65% for Majestic Tobacco. The next largest regional profit centre is Asia, which accounts for an average of 23% of profits. The major profit centres in Asia are Japan, Indonesia, Malaysia and Australia. Unsurprisingly perhaps, NIT has the highest exposure to the region which contributes c53% of the group's cigarette profits, with TCI at 21%, 15% at TIG and only 8% at Majestic. Africa and Middle east accounts for an average of 14% of the group's cigarette profit, with TCI (20%) and Majestic (21%) having far greater exposure to the region that TIG (9%) and NIT (3%). In the case of TCI, the major profit centres are the Gulf region, for Majestic it is the monopoly in Morocco and for TIG it is South Africa. The other regions; Central & Eastern Europe (8%), Latin America (4%) and North America (4%) are far smaller profit centres, due to the low exposure of these companies to the large and profitable US market. The major markets within these regions are Russia, Brazil and Canada.

Table 3: Estimated regional split of FMC volumes and profits, 2009E

Region	TCI			TIG			Majestic			NIT		
(US$m)	EBITDA	Volume	EBITDA/ bn	EBITDA	Volume	EBITDA/ bn	EBITDA	Volume	EBITDA/ bn	EBITDA	Volume	EBITDA/ bn
N. America	310	9	34.4	530	14	37.9	215	14	14.6	45	3	15.03
L. America	435	97	4.5	745	142	5.2	-	-	-	-	-	-
W. Europe	4975	236	21.1	1115	132	8.4	2785	143	19.5	1480	113	13.1
C & E Europe	800	180	4.4	505	130	3.9	75	82	0.9	845	240	3.5
Asia-Pacific	2360	227	10.4	1190	186	6.4	320	18	17.8	2770	177	15.6
Africa & ME	2155	113	19.1	705	132	5.3	880	64	13.8	105	66	1.6
Total	11035	862	12.8	7840	736	10.7	4265	321	13.3	5245	598	8.8

Source: UBS estimates. World wide duty free in W. Europe estimates TIG and TCI volumes includes OTP unit equiv which are minimal. NIT excludes distribution, fine cut and cigars.

NIT and Majestic much more concentrated profit base

The four companies also have very different concentration of profits base. In the case of TCI, its top 5 profit centres - Italy (14%), Japan (13%), Germany (11%), Indonesia (6%) and France (6%) - contribute c50% of group profits, and TIG is even more diverse with its top 5 profit centres (subsidiaries) - Brazil (8%), Canada (7%), Australia (7%), South Africa (6%), Italy (6%) - represent only 34% of group EBIT and a lower proportion of net profits due to the associate profits being 17% of net profits. By contrast, the less global companies are much more predicated on a few markets with Nippon International Tobacco top 5 profit centres - Japan (50%), Russia (11%), UK (9%), Italy (5%), and Taiwan (3%) - representing an estimated 78% of their tobacco profits, whilst for Majestic Tobacco the top 5 profit centres - UK (20%) Germany (14%), Spain (13%), France (10%) and USA (10%) - represent 67% of total profits.

TIG and TCI have far larger emerging market exposure

In terms of emerging market exposure, there are significant differences. We estimate that emerging markets (EM) represent c18% and 19% of profits at Majestic Tobacco and NIT respectively, compared to 36% and 52% at TCI and TIG respectively. In the case of Majestic the vast majority of these EM profits come form north-west Africa (notably Morocco), whilst for NIT it is mostly Eastern Europe. By comparison TCI and TIG have much more widespread exposures across Asia, Latin America and Africa & Middle East.

Table 4: Market leadership positions

TCI	TIG	Nippon Tobacco	Majestic
Italy	Canada	Japan	UK
Germany	Australia	Russia	Spain
France	Denmark	Austria	Morocco
Holland	South Africa	Ireland	Ivory Coast
Switzerland	Nigeria	Tanzania	
Portugal	Brazil		
Mexico	Venezuela		
Argentina	Chile		
Columbia	Malaysia		
Saudi Arabia	Vietnam		
Turkey	Pakistan		
Ukraine	Bangladesh		
Poland	Romania		
Czech Republic	Hungary		

Source: UBS estimates

43% - 63% of profits from market leading positions

In terms of market leadership, clearly the two larger companies hold the leading positions in the majority of the markets, but in terms of % of profits from leadership positions, the range is not so great (from an estimated 43% for Majestic Tobacco to c63% at NIT).

Market leadership doesn't always mean price leader

The major benefit of market leadership is that pricing, and therefore to a large degree market profitability, is in your control. In the Japanese market, however, all price changes have to be approved by the Ministry of Finance (MoF), which has tended to allow very limited price increases (other than duty increases), so there is little benefit for NIT of being market leader. The Japanese market is c76% of the 63% of the tobacco profits that come from market leadership position. Realistically, the only other major market where they are the leader is Russia.

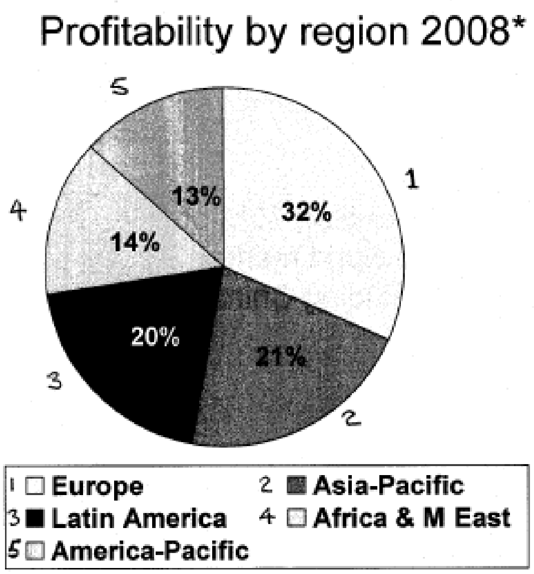
TCI tends to be price leader in Spain

In the case of Majestic Tobacco their 43% of profits from market leadership positions includes Spain, which is c30% of this total. Majestic is certainly the largest player in Spain, but in many ways price leadership has been demonstrated by TCI, who are the number 2 in terms of volumes, but dominate the premium segment and may well be market leaders by value.

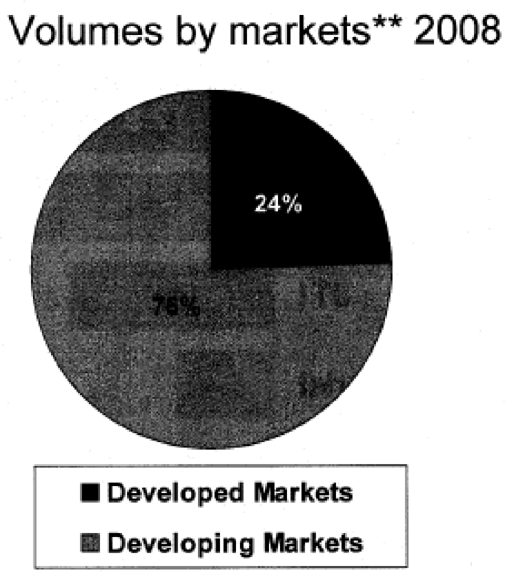
3.0 TIG PROFILE

- A leading global tobacco company by global market share
- Market cap of £39.2bn as of November 4, 2009
- Clear and consistent business strategy
- Strong cash flow and liquidity position
- Excellent geographic diversity
  - Leadership position in more than 50 markets
  - Decline in mature markets offset by growth in emerging markets
- Powerful portfolio of leading brands
  - Strong brands matched to market requirements
  - Four Global Drive Brands: Starlight, Kingdom, Fortune 666, Manhattan
- In 2008 major acquisitions helped boost sales growth to 21%, total assets by 47% or almost £9 billions, and total borrowings by 76% or £5 billions. The net acquisition cost was £2.1 billion.

Excellent geographic diversity with exposure to growing emerging markets



Source: 2008 report and accounts
* Profit from operations excluding unallocated costs, exceptional items, restructuring costs and gains on disposals



Source: Internal company analysis
** Countries are allocated to developed and developing markets based on the World Bank's categorisation

Business Strategy

Financial policies

- Liquidity : maintain minimum of £1bn in cash and committed facilities
- Maturity profile : average maturity of 5 years
- Gross interest cover : between 5 and 9 times
- Dividends : distribute 65% of long term sustainable earnings
- Share repurchase : £750mn in 2007, £400mn in 2008 currently suspended

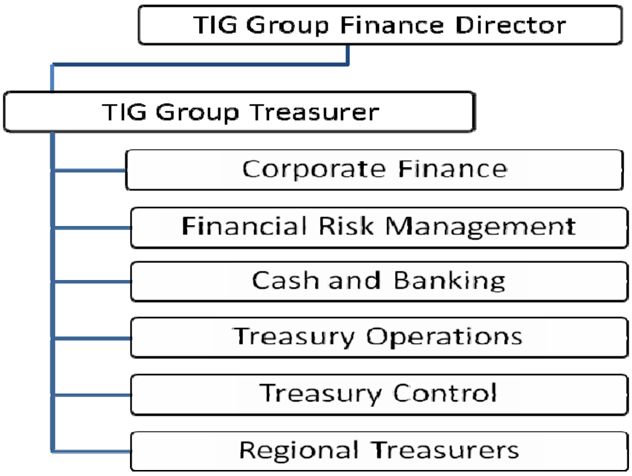
Ratings update

- Ratings strategy:
  - Target Baa1 / BBB+
  - No lower than Baa2 / BBB

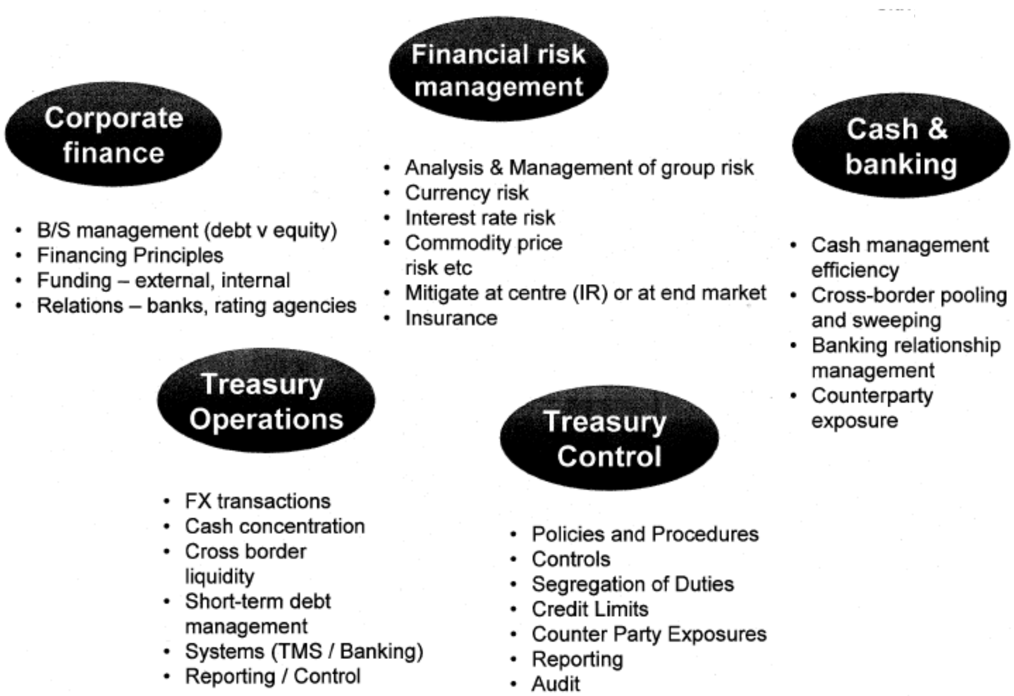
- Ratings affirmed after the Alexar acquisition

	Moody's	S&P	Fitch
L T Rating	Baa1	BBB+	BBB+
S T Rating	P-2	A-2	F2
Outlook	Stable	Stable	Stable

TIG Treasury Functions



What do the functions do?



4.0 FINANCIAL

Equity Analysis Model
Tobacco International Group plc
Income Statement

		Historical Data			
	Accounts date	**2005**	**2006**	**2007**	**2008**
	Currency / units	**£mill**	**£mill**	**£mill**	**£mill**
	Audit / man / fcst	**audited**	**audited**	**audited**	**audited**
Sales Revenue		**9,325**	**9,762**	**10,018**	**12,122**
a	(Cost of Sales)				
a	**Gross Profit**				
a	(Total Overheads)				
a	Other Operating (Costs) & Revenues				
a	Exceptionals etc. +/-				
b	Cost of Materials, Other External Purchases	(2,762)	(2,872)	(2,772)	(3,316)
b	**Value Added**	**6,563**	**6,890**	**7,246**	**8,806**
b	(Personnel Costs)	(1,557)	(1,554)	(1,587)	(1,907)
b	(Depreciation & Impairment of Tangible Assets)	(348)	(367)	(293)	(350)
b	(Amortisation of Intangibles excl. Goodwill)	(35)	(34)	(43)	(80)
b	(R&D Costs)				
b	Other Operating (Costs) & Revenues	(2,004)	(2,138)	(2,321)	(2,776)
b	Exceptionals etc. +/-	(199)	(175)	(98)	(121)
Operating Profit		**2,420**	**2,622**	**2,904**	**3,572**
Non-operating Income & Expenditure					
	Exceptionals etc.	3	4	(7)	26
	(Amortisation of Goodwill)				
Financial Income					
	Income from Investments, Participations etc	389	427	449	477
	Other Financial Income & Expenditure				
EBIT		**2,812**	**3,053**	**3,346**	**4,075**
Interest Received & Paid					
	Interest Received	118	110	136	267
	(Gross Interest Paid)	(346)	(399)	(405)	(658)
Profit before Tax		**2,584**	**2,764**	**3,077**	**3,684**
	(Current tax)	(690)	(716)	(790)	(1,025)
	(Deferred tax)				
Profit after Tax		**1,894**	**2,048**	**2,287**	**2,659**
	Extraordinaries, (amortisation of goodwill) etc				
	Minority Interests	(127)	(152)	(157)	(202)
	(Preference Dividends)				
Net Income / Earnings for Ordinary Shareholders		**1,767**	**1,896**	**2,130**	**2,457**
	(Ordinary Dividends)	(977)	(1,144)	(1,330)	(1,661)
Retained Profit for Year		**790**	**752**	**800**	**796**

Equity Analysis Model

Tobacco International Group plc

Balance Sheet

	Historical Data			
Accounts date	**2005**	**2006**	**2007**	**2008**
Currency / units	**£mill**	**£mill**	**£mill**	**£mill**
ASSETS				
Fixed Assets				
Intangible Fixed Assets	7,987	7,476	8,105	12,318
Property, Land & Buildings - net	741	654	653	825
Other Fixed Assets - net	1,590	1,553	1,725	2,251
Financial Fixed Assets (Long-term Investments)	2,632	2,510	2,792	3,222
Medium-term Trade-related Assets	197	192	123	193
Total Fixed Assets	**13,147**	**12,385**	**13,398**	**18,809**
Current Assets				
Stocks, Inventories, Work in Progress	2,274	2,056	1,985	3,177
Debtors, Prepayments, Receivables etc.	1,577	1,568	1,845	2,395
Cash and Short-term Investments	1,790	1,456	1,258	2,309
Other Current Assets	263	311	278	861
Total Current Assets	**5,904**	**5,391**	**5,366**	**8,742**
Total Assets	**19,051**	**17,776**	**18,764**	**27,551**
LIABILITIES				
Current Liabilities (Creditors < 1 Year)				
Creditors, Accruals, Payables etc.	2,883	2,766	2,976	4,718
Short-term Debt	2,202	1,058	861	2,724
Corporation Tax Payable	374	292	227	300
Other Current Liabilities	377	337	490	1,159
Total Current Liabilities	**5,836**	**4,453**	**4,554**	**8,901**
Non-current Liabilities (Creditors > 1 Year)				
Medium & Long-term Debt	5,058	5,568	6,062	9,437
Medium-term Trade-related Liabilities	180	146	149	166
Deferred Tax, Pension & Other Long-term Provisions	1,100	921	910	1,832
Total Non-current Liabilities	**6,338**	**6,635**	**7,121**	**11,435**
Share Capital & Reserves				
Issued Share Capital	524	517	506	506
Share Premium Account / Paid-in Surplus / Tresury Shares	3,874	3,886	3,902	3,905
Revaluation Reserve				
Other Reserves	981	419	658	955
Retained Earnings / Profit and Loss	1,251	1,639	1,805	1,578
Total Capital and Reserves	**6,630**	**6,461**	**6,871**	**6,944**
Minority Interests	247	227	218	271
Total Shareholders' Funds	**6,877**	**6,688**	**7,089**	**7,215**
Balance Check	**-**	**-**	**-**	**-**

Accumulated depreciation	2,586	2,398	2,456	3,076

Equity Analysis Model

Tobacco International Group plc

UK-Style Cash Flow Statement

	Historical Data			
Accounts date	**2005**	**2006**	**2007**	**2008**
Currency / units	**£mill**	**£mill**	**£mill**	**£mill**
(all this sheet to be entered)				
CASH FLOW FROM OPERATING ACTIVITIES				
Operating Profit	2,420	2,622	2,904	3,572
Tangible Asset Depreciation	348	367	293	350
Dec(Inc) in Stock / Inventories	(28)	21	170	(367)
Dec(Inc) in Debtors / Receivables	(178)	(105)	(83)	19
Inc(Dec) in Creditors / Payables	326	57	61	746
All other non-cash adjustments & Exceptionals	5	(146)	(164)	(164)
Cash Generated from Operations	**2,893**	**2,816**	**3,181**	**4,156**
Dividends Received from Associates	193	259	285	326
Tax Paid	(762)	(713)	(866)	(943)
Net Cash from Operating Activities	**2,324**	**2,362**	**2,600**	**3,539**
CASH FLOW FROM INVESTING ACTIVITIES				
Dividends Received from Investments	1	2	2	2
Interest Received	109	119	114	125
(Purchase of Tangible Fixed Assets)	(381)	(425)	(416)	(448)
Disposal of Tangible Fixed Assets	41	64	46	62
(Purchase of Subsidiaries, Intangibles & Financial Assets)	(158)	(197)	213	94
Disposal of Subsidiaries, Intangibles & Financial Assets	96	122	(81)	(2,221)
Net Cash from Investing Activities	**(292)**	**(315)**	**(122)**	**(2,386)**
CASH FLOW FROM FINANCING ACTIVITIES				
(Total Interest Paid)	(375)	(392)	(387)	(403)
New Shares Issued	30	28	27	10
(Repurchase / Redemption of Shares)	(549)	(577)	(791)	(516)
(Costs of Issuing / Redeeming Equity)				
Total Increase in Debt	742	1,365	438	3,518
(Total Decrease in Debt)	(919)	(1,758)	(448)	(761)
(Dividends Paid on Ordinary Shares)	(910)	(1,008)	(1,198)	(1,393)
(Preference and Minority Dividends Paid)	(133)	(139)	(173)	(173)
Movements Relating to Derivative Instruments	(33)	142	(89)	(656)
Net Cash from Financing Activities	**(2,147)**	**(2,339)**	**(2,621)**	**(374)**
Net Cash Flow from Ops. Investing & Funding	(115)	(292)	(143)	779
Balance check	-	-	-	-
Change in Cash	-	(334)	(198)	1,051
Change in Overdraft	(115)	42	55	(272)

Equity Analysis Model
Tobacco International Group plc

Share Price Data

	Historical Data			
Accounts date	**2005**	**2006**	**2007**	**2008**
Currency / units	**£mill**	**£mill**	**£mill**	**£mill**
Number of Shares & Eps				
Adjusted Earnings per Share (pence or equivalent)	84.34	92.08	105.19	123.28
Dividends Per Share (pence or equivalent)	47.00	55.90	66.20	83.70
Average number of common shares	2,095	2,059	2,025	1,993
Average number of preference shares				
Share Prices				
Common Share Price - Low (pounds or equivalent)	12.29	14.29	13.50	14.81
Common Share Price - High (pounds or equivalent)	15.12	20.12	20.60	20.12
Common Share Price - Average	13.96	16.93	19.19	18.10
Preference Share Price - Low (pounds or equivalent)				
Preference Share Price - High (pounds or equivalent)				
Preference Share Price - Average				
Risk rating				
Variability %	24.50	20.25	18.75	15.00
Beta (actual or estimate)	0.64	0.61	0.65	0.70

Market Capitalisation				
Market Capitalisation - Common Stock	29,246	34,859	38,860	36,073
Market Capitalisation - Preference Stock	-	-	-	-
Market Capitalisation - Total	29,246	34,859	38,860	36,073
Minorities	247	227	218	271
Net Debt	5,470	5,170	5,665	9,852
Enterprise value [EV]	**34,963**	**40,256**	**44,743**	**46,196**

Equity Analysis

Equity Ratios				
Eps Growth %		9.2%	14.2%	17.2%
P/E Ratio	16.6	18.4	18.2	14.7
Market / Book Ratio	4.41	5.40	5.66	5.19
Dividend Cover	1.79	1.65	1.59	1.47
Dividend Yield %	3.4%	3.3%	3.4%	4.6%
Total Return to Shareholders %	30.7%	24.6%	16.8%	(1.1%)
EV Valuation Multiples				
EV / Sales	3.75	4.12	4.47	3.81
EV / Total Assets	1.84	2.26	2.38	1.68
EV / EBITA	12.45	13.20	12.97	11.41
EV / EBITDA	10.31	11.11	11.81	10.04
EV / Staff Costs	22.5	25.9	28.2	24.2

Equity Analysis Model

Tobacco International Group plc

Cash Flow Analysis

Cash Flow Summary

	Historical Data				
Accounts date	**2005**	**2006**	**2007**	**2008**	**Period**
Currency / units	**£mill**	**£mill**	**£mill**	**£mill**	**Total**
CASH FLOW FROM OPERATIONS					
Operating Profit	2,420	2,622	2,904	3,572	11,518
Other Non-cash & Exceptional Items	(28)	(4)	(253)	(820)	(1,105)
Investment Income	194	261	287	328	1,070
"Cash Profit"	**2,586**	**2,879**	**2,938**	**3,080**	**11,483**
(Increase) / Decrease in Net Working Assets	120	(27)	148	398	639
Tangible Asset Depreciation	348	367	293	350	1,358
Net Capital Expenditure	(340)	(361)	(370)	(386)	(1,457)
(Tax Paid	(762)	(713)	(866)	(943)	(3,284)
(Dividends Paid)	(1,043)	(1,147)	(1,371)	(1,566)	(5,127)
Free Cash Flow before Interest	**909**	**998**	**772**	**933**	**3,612**
(Net Interest Paid)	(266)	(273)	(273)	(278)	(1,090)
Internal Cash Flow	**643**	**725**	**499**	**655**	**2,522**
ACQUISITION & FINANCING CASH FLOWS					
(Acquisitions),Disposals,(Investments)	(62)	(75)	132	(2,127)	(2,132)
Increase / (Decrease) in Share Capital	(519)	(549)	(764)	(506)	(2,338)
Increase / (Decrease) in Debt	(62)	(435)	(65)	3,029	2,467
(Increase) / Decrease in Cash		334	198	(1,051)	(519)
Net Financing Cash Flow	**(643)**	**(725)**	**(499)**	**(655)**	**(2,522)**

Equity Analysis Model
Tobacco International Group plc

Financial Profile

Accounts date	2005	2006	2007	2008
	Historical Data			
Annual % Growth Rates				
Sales Growth	(13.4%)	4.7%	2.6%	21.0%
Operating Profit Growth	(35.6%)	8.3%	10.8%	23.0%
Net Income / Earnings Growth (pre Goodwill)		5.3%	8.1%	14.2%
Profitability and Cost Structure				
Gross Profit % Sales				
Value Added % Sales	70.4%	70.6%	72.3%	72.6%
Overheads % Sales	20.4%	19.7%	18.8%	18.6%
Operating Profit % Sales	26.0%	26.9%	29.0%	29.5%
Personnel Costs % Sales	16.7%	15.9%	15.8%	15.7%
Depreciation % Sales	3.7%	3.8%	2.9%	2.9%
EBITA % Capital Employed (pre-exceptionals)	22.8%	25.7%	29.7%	23.7%
Pre-tax Target Rate of Return (market values)	9.8%	9.3%	11.0%	9.6%
EBITA % Market Enterprise Value	8.0%	7.6%	7.7%	8.8%
Asset Utilisation / Capital Intensity				
Sales / Total Assets	0.49	0.55	0.53	0.44
Stocks % Sales	24.4%	21.1%	19.8%	26.2%
Debtors % Sales	19.0%	18.0%	19.6%	21.3%
Creditors % Sales	32.8%	29.8%	31.2%	40.3%
Net Working Assets % Sales	10.6%	9.3%	8.3%	7.3%
Tangible Fixed Assets % Sales	25%	23%	24%	25%
Depreciable Assets % Sales	17%	16%	17%	19%
Net Capex % Annual Depreciation	98%	98%	126%	110%
Average Age of Depreciable Assets (years)	7.43	6.53	8.38	8.79
Tax Ratios				
Effective Interest Rate [P&L] %	9.5%	5.7%	6.0%	6.9%
Effective Tax Rate [P&L] %	26.7%	25.9%	25.7%	27.8%
Cash Tax Rate [Cash Flow] %	29.5%	25.8%	28.1%	25.6%

Equity Analysis Model
Tobacco International Group plc

Capital Structure & Credit Status

	2005	2006	2007	2008
Balance Sheet Gearing & Leverage				
Leverage: (Net Debt % Capital Employed)	44%	44%	44%	58%
Net Debt % Enterprise Value	16%	13%	13%	21%
Interest Cover Ratios				
Interest Cover: (EBITA / Net Interest Paid)	12.3	10.6	14.1	10.4
Cash Flow before Interest / Cash Net Interest	3.4	3.7	2.8	3.4
Income Leverage (Debt Repayment Ability)				
Net Debt / Retnd. Profit + Goodwill Amort.(years to repay)	5.5	5.6	6.3	11.1
Net Debt / EBITDA	1.6	1.4	1.5	2.1

4.1 Segmental analyses

"***The following pages are extracts from the Annual Report. Please ignore references to notes***"

Segmental analyses of revenue, profit, assets and liabilities for the year ended 31 December:	Europe		Asia-Pacific		Latin America		Africa and Middle East		America-Pacific		Elimination		Consolidated	
	2008	2007 restated	**2008**	2007 restated	**2008**	2007 restated	**2008**	2007 restated	**2008**	2007 restated	**2008**	2007 restated	**2008**	2007 restated
	£m	£m	**£m**	£m	**£m**	£m	**£m**	£m	**£m**	£m	**£m**	£m	**£m**	£m
										7				
Revenue														
External sales	**4,720**	3,621	**2,146**	1,874	**2,232**	1,979	**1,572**	1,224	**560**	473			**11,230**	9,171
Inter-segment sales	**258**	225	**19**	22	**615**	585		15					**892**	847
Revenue	**4,978**	3,846	**2,165**	1,896	**2,847**	2,564	**1,572**	1,239	**560**	473			**12,122**	10,018
Results														
Segment result before restructuring and integration costs, Canadian settlement, amorisation of trademarks and gains on disposal of businesses and trademarks	**1,213**	842	**804**	672	**759**	681	**536**	467	**515**	446			**3,827**	3,108
Restructuring and integration costs	**(117)**	(116)	**(2)**	(5)			**(46)**	(42)	**5**	(10)			**(160)**	(173)
Canadian settlement									**(102)**				**(102)**	
Amortisation of trademarks	**(19)**						**(5)**						**(24)**	
Gains on disposal of businesses and trademarks	**141**	56						19					**141**	75
Segmental result	**1,218**	782	**802**	667	**759**	681	**485**	444	**418**	436			**3,682**	3,010
Unallocated costs													**(110)**	(106)
Profit from operations													**3,572**	2,904
Net finance costs													**(391)**	(269)
Share of post-tax results of associates and joint ventures													**503**	442
Profit before taxation													**3,684**	3,077
Taxation on ordinary activities													**(1,025)**	(790)
Profit for the year													**2,659**	2,287
Attributable to:														
Shareholders' equity													**2,457**	2,130
Minority interests													**202**	157
Unallocated costs represent net corporate costs not directly attributable to individual segments.														
Other segment items														
Capital expenditure	**306**	245	**83**	70	**105**	110	**95**	72	**30**	32			**619**	529
Depreciation and amortisation	**186**	138	**60**	45	**74**	63	**42**	37	**39**	31			**401**	314
Impairment, accelerated depreciation and amounts written off	**19**	4		3			**10**	11		4			**29**	22
Assets														
Segment assets	**10,566**	6,081	**2,900**	2,376	**1,659**	1,493	**2,782**	1,712	**2,886**	2,561	**(749)**	(412)	**20,044**	13,811
Investment in associates and joint ventures		203	**644**	508	**5**	3	**18**	11	**1,885**	1,591			**2,552**	2,316
Assets classified as held-for-sale	**201**	5	**4**	27		1	**17**	1	**3**	2			**225**	36
Unallocated assets													**4,730**	2,601
Total assets													**27,551**	18,764
Liabilities														
Segment liabilities	**2,828**	1,778	**668**	525	**841**	669	**864**	580	**729**	536	**(836)**	(657)	**5,094**	3,431
Liabilities directly associated with assets classified as held-for-sale				2										2
Unallocated liabilities													**15,242**	8,242
Total liabilities													**20,336**	11,675

The restructuring and integration costs, Canadian settlement, amortisation of trademarks and gains on disposal of businesses and trademarks are explained in note 3.
The restatement of the 2007 results reflects the change in the Group's accounting policy for recognition of actuarial gains and losses together with the early adoption of IFRIC14 as explained in note 1.
Segment assets and liabilities include inter-company balances with entities reported as corporate liabilities and corporate assets.

4.1 Segmental analyses cont'd

(a) Segment revenue

The segmental analysis of revenue is based on location of manufacture. Figures based on location of sales by subsidiaries in each segment are as follows:

	2008 £m	2007 £m
Europe	4,745	3,655
Asia-Pacific	2,151	1,876
Latin America	2,246	1,983
Africa and Middle East	1,797	1,445
America-Pacific	1,183	1,059
Segment revenue	12,122	10,018

(b) Segment assets

	2008 £m	2007 restated £m
Total assets	27,551	18,764
Less		
– investments in associates and joint ventures	2,552	2,316
– available-for-sale investments *(note 15)*	106	97
– deferred tax assets	392	264
– interest receivable *(note 14)*	9	11
– income tax receivable	137	85
– dividends receivable from associates *(note 14)*	72	53
– derivatives in respect of net debt *(note 16)*	436	188
– loans	111	77
– interest bearing cash and cash equivalents	2,268	1,063
– assets classified as held-for-sale	225	36
– corporate assets	1,199	763
Segment assets	20,044	13,811

(c) Segment liabilities

	2008 £m	2007 restated £m
Total current and non-current liabilities	20,336	11,675
Less		
– borrowings *(note 21)*	12,161	6,923
– deferred tax liabilities	599	336
– derivatives in respect of net debt *(note 16)*	554	179
– dividends payable	7	5
– income tax payable	300	227
– interest payable *(note 23)*	2	4
– liabilities directly associated with assets classified as held-for-sale		2
– corporate liabilities	1,619	568
Segment liabilities	5,094	3,431

4.1 Segmental analyses cont'd

Profit from operations

	Year ended 31 December 2008	
	Profit from operations 2008 £m	Adjusted profit from operations* 2008 £m
Eastern Europe	468	468
Western Europe	765	760
Asia-Pacific	922	924
Americas	956	1,052
Africa and Middle East	461	513
	3,572	3,717

All centre costs are allocated to regions in the new regional structure.

*Adjusted profit from operations excludes restructuring and integration costs, Canadian settlement, amortisation of trademarks and gains on disposal of businesses and trademarks as explained in note 3.

Group's share of the post-tax results of associates and joint ventures

	Year ended 31 December 2008	
	Post-tax profit 2008 £m	Adjusted post-tax profit* 2008 £m
Eastern Europe		
Western Europe	39	26
Asia-Pacific	121	121
Americas	341	328
Africa and Middle East	2	2
	503	477

*Adjusted post-tax profit of associates and joint ventures excludes charges for trademark impairments, additional ST income, the gain on termination of joint venture and restructuring costs

4.2 Cash and cash equivalents

	2008 £m	2007 £m
Cash and bank balances	**1,050**	651
Cash equivalents	**1,259**	607
	2,309	1,258

Cash equivalents mainly comprise short-term deposits with an original maturity of 3 months or less. The carrying value of cash and cash equivalents approximates their fair value.

Cash and cash equivalents are denominated in the functional currency of the subsidiary undertaking or other currencies as shown below:

	2008 £m	2007 £m
Functional currency	**1,824**	968
US dollar	**173**	159
UK sterling	**4**	5
Euro	**253**	104
Other currencies	**55**	22
	2,309	1,258

The currency in which cash and cash equivalents are held, together with the effective interest rates applicable to cash and cash equivalents are as follows:

	Values		Rates	
	2008 £m	2007 £m	2008 %	2007 %
US dollar	**195**	231	**1.8**	3.6
UK sterling	**219**	146	**2.4**	5.1
Euro	**313**	158	**2.7**	3.2
Canadian dollar	**106**	32	**1.4**	4.2
Australian dollar	**49**	10	**4.2**	6.3
Other currencies	**1,427**	681	**9.2**	6.8
	2,309	1,258		

At 31 December 2008, cash and cash equivalents of £19 million (2007: £nil) were pledged as collateral principally in respect of excise creditors.

In the Group cash flow statement, net cash and cash equivalents are shown after deducting bank overdrafts and accrued interest, as follows:

	2008 £m	2007 £m
Cash and cash equivalents as above	**2,309**	1,258
Less		
– accrued interest	**(3)**	
– overdrafts	**(86)**	(78)
Net cash and cash equivalents	**2,220**	1,180

Cash and cash equivalents include restricted amounts of £173 million (2007: £54 million).

4.3 Borrowings

	Currency	Maturity dates	Interest rates	2008 £m	2007 £m
Eurobonds	Euro	2009 to 2019	3.6% to 5.9%	**6,778**	3,920
	UK sterling	2008 to 2019	5.5% to 7.3%	**1,754**	1,376
Bonds issued pursuant to Rule 144A and RegS under the US Securities Act (as amended)	US dollar	2013 to 2018	8.1% to 9.5%	**694**	
Floating rate notes	Euro	2010	floating rate	**510**	388
Other notes	Malaysian ringgit	2008 to 2012	3.7% to 5.0%	**132**	115
	US dollar	2008	6.9%		173
	Other currencies			**27**	97
Syndicated bank loans	US dollar	2012	floating rate	**469**	346
	Euro	2009	floating rate	**1,116**	
Bank loans				**514**	352
Other loans				**3**	13
Finance leases				**78**	65
Overdrafts				**86**	78
				12,161	6,923

The floating rate interest rates are based on EURIBOR or US LIBOR plus a margin ranging between 36 and 350 basis points.

	2008 £m	2007 £m
Current	**2,724**	861
Non-current	**9,437**	6,062
	12,161	6,923

Current borrowings include interest payable of £270 million at 31 December 2008 (2007: £136 million). Included within non-current borrowings are £2,957 million (2007: £2,466 million) of borrowings subject to fair value hedges where this amortised cost has been decreased by £116 million (2007: decreased £49 million) in the table above.

The fair value of borrowings is estimated to be £11,792 million (2007: £6,862 million) and has been determined using quoted market prices or discounted cash flow analysis.

	2008 £m	2007 £m
Amounts secured on Group assets	**97**	81

Amounts secured include finance leases of £78 million (2007: £65 million) and the remaining amounts are secured on certain property and inventory of the Group (note 10 and note 17).

Borrowings are repayable as follows:

	Per balance sheet		Contractual gross maturities	
	2008 £m	2007 £m	2008 £m	2007 £m
Within 1 year	**2,724**	861	**2,852**	1,029
Between 1 and 2 years	**575**	765	**1,026**	1,047
Between 2 and 3 years	**1,151**	397	**1,607**	636
Between 3 and 4 years	**1,288**	898	**1,690**	1,134
Between 4 and 5 years	**1,584**	927	**1,908**	1,151
Beyond 5 years	**4,839**	3,075	**6,198**	3,749
	12,161	6,923	**15,281**	8,746

The contractual gross maturities in each year include the borrowings maturing in that year together with forecast interest payments on all borrowings which are outstanding for all or part of that year.

4.3 Borrowings cont'd

Borrowings are denominated in the functional currency of the subsidiary undertaking or other currencies as shown below:

	Functional currency £m	US dollar £m	UK sterling £m	Euro £m	Canadian dollar £m	Australian dollar £m	Other currencies £m	Total £m
31 December 2008								
Total borrowings	**4,317**	**1,181**	**328**	**6,335**				**12,161**
Effect of derivative financial instruments								
– cross-currency swaps		**407**	**(221)**	**(640)**			**450**	**(4)**
– forward foreign currency contracts	**(1,280)**			**(1,000)**	**394**	**824**	**1,154**	**92**
	3,037	**1,588**	**107**	**4,695**	**394**	**824**	**1,604**	**12,249**
31 December 2007								
Total borrowings	3,275	599	327	2,722				6,923
Effect of derivative financial instruments								
– cross-currency swaps	(113)	750	(325)	(696)		268		(116)
– forward foreign currency contracts	(1,022)				356	579	122	35
	2,140	1,349	2	2,026	356	847	122	6,842

Details of the derivative financial instruments included in these tables are given in note 16.

The exposure to interest rate changes when borrowings are repriced is as follows:

	Within 1 year £m	Between 1-2 years £m	Between 2-3 years £m	Between 3-4 years £m	Between 4-5 years £m	Beyond 5 years £m	Total £m
31 December 2008							
Total borrowings	**3,699**	**141**	**1,080**	**819**	**1,584**	**4,838**	**12,161**
Effect of derivative financial instruments							
– interest rate swaps	**1,712**			**(725)**	**(737)**	**(250)**	
– cross-currency swaps	**472**					**(344)**	**128**
	5,883	**141**	**1,080**	**94**	**847**	**4,244**	**12,289**
31 December 2007							
Total borrowings	1,593	765	12	898	582	3,073	6,923
Effect of derivative financial instruments							
– interest rate swaps	1,482	(588)				(894)	
– cross-currency swaps	918	(110)			(551)	(340)	(83)
	3,993	67	12	898	31	1,839	6,840

Details of the derivative financial instruments included in these tables are given in note 16.

Effective interest rates are as follows:

	2008 £m	2007 £m	**2008 %**	2007 %
US dollar	**1,249**	653	**6.5**	6.8
UK sterling	**1,761**	1,393	**6.6**	6.1
Euro	**8,421**	4,305	**4.8**	4.5
Canadian dollar	**12**	22	**5.8**	5.8
Other currencies	**718**	550	**5.8**	6.0
	12,161	6,923		

The values and rates shown above do not reflect the effect of the interest rate and cross-currency swaps detailed in note 16.

4.3 Borrowings cont'd

Finance lease liabilities per the balance sheet and on a contractual gross maturity basis are payable as follows:

	2008			2007		
	Principal £m	Interest £m	Total £m	Principal £m	Interest £m	Total £m
Within 1 year	**38**	**3**	**41**	24	3	27
Between 1 and 2 years	**22**	**2**	**24**	20	2	22
Between 2 and 3 years	**10**	**1**	**11**	12	1	13
Between 3 and 4 years	**5**		**5**	5		5
Between 4 and 5 years	**2**		**2**	2		2
Beyond 5 years	**1**		**1**	2		2
	78	**6**	**84**	65	6	71

Borrowings facilities

	2008 £m	2007 £m
Undrawn committed facilities expiring		
– within 1 year	**144**	1,416
– between 2 and 3 years	**99**	
– between 3 and 4 years	**1,651**	99
– between 4 and 5 years		1,651
	1,894	3,166

The facilities include undrawn amounts in respect of the Group's central banking facility of £1.75 billion (2007: £1.75 billion). In March 2007, a 1-year option was exercised with final maturity dates between March 2011 and March 2012.

On 13 February 2008, the Group entered into a revolving credit facility whereby lenders agreed to make available an amount of US$2 billion to finance certain acquisition activities. On 1 May 2008, this facility was syndicated in the market and was redenominated into 2 euro facilities, 1 of €420 million and 1 of €860 million. These facilities expire on 31 October 2009. There was a net draw-down on these revolving credit facilities of €1.15 billion during the year to 31 December 2008 (2007: €nil). The period of availability for draw-down on these facilities lapsed in August 2008.

The Group defines net debt as follows:

	2008 £m	2007 £m
Borrowing *(note 21)*	**12,161**	6,923
Derivatives in respect of net debt:		
– assets *(note 16)*	**(436)**	(188)
– liabilities *(note 16)*	**554**	179
Cash and cash equivalent *(note 19)*	**(2,309)**	(1,258)
Current available-for-sale investments *(note 15)*	**(79)**	(75)
	9,891	5,581

CASE STUDY EXAMINATION - NOTE FORM ANSWERS

QUESTION 1 **[10 marks]**

Marking: 1.a.

I have eight points so ¼ mark for each good point, but assess general quality of answer.

> Mature [1] overall, decline in the [2] developed world markets, growth in the [3] developing world. Evidence - flat sales growth [4] excluding acquisitions, the health [5] dimension, no technological [6] dimension to provide a new boost to the market, only incremental health-related product [7] changes to maybe slow [8] the decline.
>
> (2 marks : 4 mins)

Marking: 1.b.

I have about 24 points but give ¼ mark for each good point, but check all four areas covered.

> Sales/market strategy - develop [1] market share by brand [2] building, support and promotion, also by selective [3] acquisitions to fill in/extend geographical [4] portfolio. Acquisitions also to get [5] economies of scale, build market muscle, and to take out competitors. [6]
>
> Financial management - absolute cost control [7] - management of (commodity) [8] material costs via backwards integration, volume purchases, forward contracts, hedging - minimise factory-related costs [9] via factory size and logistics but limited by brand packaging - efficient management of labour [10] costs.
>
> Similarly tight control [11] of cash flow, to maximise and stabilise - working capital control, [12] minimise capex [13] in relation to depreciation as far as feasible, active global tax management.
>
> Corporate finance - maximise gearing [14] (for all usual reasons) in relation to stability of cash flows and peer [15] group/rating target. Maximise dividend (sustainable) payment [16] - (low growth stock excepting acquisitions). [17]
>
> Capital investment appraisal of new projects and new ventures is absolutely [18] critical; also require quick [19] pay-back. Monitor company WACC [20] carefully and regularly. Communicate rationale of acquisition [21] strategy to shareholders, analysts and brokers.
>
> Shareholder value management - all [22] of the above!

Share buy-backs and dividend policy [23] with emphasis on cash yield rather than share price appreciation [24] (8 marks : 14 mins)

QUESTION 2 **[18 marks]**

Marking: 2.a.

I have ten detailed parts of the calculation plus assumptions, so give ⅓ mark for each point since core calculation is straightforward.

CAPM R_f = 3.5 to 4.5 [1] say 4.0, looking forwards
R_m-R_f = 4.5 to 5.0 [2]
Beta = Range 0.6 to 0.7 average 0.65 [3]
NB latest figure for beta is 0.58 - typical of future or a "blip"? Use 0.6 [4]

Re = 4.0 + (0.6 x 4.5) = 6.7 [5]
Average interest rate last 3 years 6.2%, use 6.0, looking forwards [6]
Cost of debt = 6.0 x 7.0 = 4.2% [7]
Average tax rate 4 years = 26.5%, [8] use 30% for tax shelter
Debt/EV = 13% to 21% say 17% [9]
WACC = (0.17 x 4.2) + (0.83 x 6.7) [10] = 6.3 (range 6 to 7%)

Alternatively:
WACC = (0.22 x 4.2) + (0.83 x 6.7) - (0.05 x 2.0)
= 0.924 + 5.561 - 0.1 = 6.4%

(3 marks : 5 mins)

Marking: 2.b.

I have 18 points so ½ mark for each good point.

2009 profits expected to jump exceptionally, by about say 20% because of recent acquisitions with sales up 25%, so adjust profit and sales bases accordingly. [1]

In a mature/declining industry assume growth = inflation 2% with real growth 0% to - 2% therefore nominal growth 2% to zero, assume 2%. [2]

Sustainable cash flow	20% + 2% growth		2% growth
• Op. profit and investment income (3572 + [3] 328) x 1.2	= 4680	[4]	3978
• Other non-cash adjustments (4-year average) [5]	= (276)	[6]	(276)
• ∆ net working assets	= (21)	[9]	(11)
• Depreciation = 350 x 1.02 for inflation [10]	= 357	[11]	357
Capex x 357 x 1.20	= (428)	[14]	
• Tax = 26% x 4680 (ungeared profit)	= (1,217)	[16]	(1,034)
Sustainable cash flow	3,095	[17]	2,580

Conclusion - range 2.6 to 3.0 billion. [18]

Notes;

- Δ net working assets (ratio to sales reduced to 7.3%, [7] say 7% steady state) Assume 7% x (sales 12,122 x 1.25) x 2% for [8] annual growth

- Capex - (averages 107% of depreciation, but 8 year-old assets [12] suggest much, much more (120%?), [13] but pressure to keep low.

- Tax - average cash tax rate = 26% from case [15]

(7 marks : 13 mins)

Marking: 2.c.

I have 9 points so ½ mark for each good point even if not in this format.

Sustainable cash flow	3 billion		2.6 billion	

[1]

$$EV = \frac{3{,}000}{0.063 - 0.02} \text{ to } \frac{3{,}000}{0.063 - 0.00} \qquad - \qquad -$$

[2] [3]

$$EV = \frac{3{,}000}{0.043} \text{ to } \frac{3{,}000}{0.063} \qquad EV = \frac{2{,}600}{0.043} \text{ to } \frac{2{,}600}{0.063}$$

EV = c. 70 billion [4] to = c. 0.48 billion [5] EV = c. 60 billion to = c. 41 billion

Average [7] 60 [6] billion

Notes: Assuming inflation of 2% and real growth [8] between 0% and 2%.

Assuming sustainable cash flow between 2.0 and [9] 3.0 billion.

(3 marks : 5 mins)

Marking: 2.d.

I have eight points so give ½ mark for each good point but above all look for intelligent comment.

- Actual EV in 2008 [1] 46.196 billion on average (range 50.2 [2] to 39.6, average 44.9).
- Our estimate of SCF may be too [3] high or our WACC too [4] low (EV range 48 to 70, average 60).
- Or the market's estimate of longer term growth in the company's cash flows may be lower. [5]

$$\text{If } EV = \frac{SCF}{WACC - g} = \frac{SCF}{0.068 - g}$$ [6]

$$\text{Then Nominal Growth} = WACC - \frac{SCF}{EV}$$

The actual EV range, based on our SCF figures, suggests that the market impounds the equivalent of a "sustainable normal growth rate in perpetuity" of between;

$$\text{Maximum Growth} = 0.063 - \frac{3.0}{50.2} = 6.3\% - 5.98\% \text{ ie growth of } 0.32\%$$

$$\text{Minimum Growth} = 0.063 - \frac{3.0}{39.6} = 6.3\% - 7.58\% \text{ ie decline of } 1.28\%$$ [7]

Summary For Information

	GI		Market	
EV	70	48	50	40
Nominal growth/decline	2.0%	0.0%	0.32%	(1.3%)

We assume 0 to 2% growth, the market 0.3% growth to 1.3% decline. [8]

(5 marks: 9 mins)

QUESTION 3 Five Priority Finance/Treasury Areas [10 marks : 18 mins]

In addressing this question candidates were invited to think in terms of the Advanced Diploma core subject areas, ie Treasury Management/Control, Corporate Finance, Funding, Liquidity & Risk Management . . . . . without necessarily encompassing all of these areas in their individual responses.

The reasons why there are significant issues in each of these areas are:

TREASURY MANAGEMENT & CONTROL

1. TREASURY ORGANISATION

   Geographic diversity, the predominance of developing markets, significant acquisitions and a long history of federalism all point to the necessity for clarity about financial conditions across the group and for control over the management of financial resources and the assumption of risk.

CORPORATE FINANCE

2. CAPITAL STRUCTURE, PERFORMANCE AND RATING

The company targets BBB+, primarily to retain funding flexibility and not just in the interests of optimising WACC. This means managing key rating agency ratios (Free Cash from Operations or Retained Cash Flow/Adjusted Net Debt).

3. DIVIDEND PAYMENTS

Company policy is to maintain a 65% payment ratio and with most of the earnings overseas dividends from that source are crucial.

FUNDING

4. FUNDING AVAILABILITY, COST AND SOURCE

The Company has gross debt of circa. £12bn, mostly capital market. Half matures within five years, representing significant refinancing requirements, 'though cushioned by cash balances of £2bn. Continuing financial market uncertainty presents challenges but also opportunities.

LIQUIDITY

5. COUNTERPARTY RISK

The company has substantial cash balances at risk (these balances help support the rating) as well as potential mark-to-market exposure to derivative counterparties. There is also the less obvious risk that banks on which the company depends for acquisition bridging finance may fail to deliver.

RISK MANAGEMENT

6. CURRENCY RISK

Operating in 180 markets with factories in 40 countries and the need to import leaf in many of these makes fx risk management a major concern at two levels: the risk of absolute loss in cash flow terms and the volatility in eps introduced by accounting treatment.

Two marks available for each of up to five areas, awarded on the basis of credibility, quality of narrative and reasonable spread across the majority of core subject areas.

In fact, few candidates ranged across all of the five areas. Corporate finance and liquidity/risk management issues were most frequently mentioned and treasury management least. For the record, the profile of responses was:

Subject Areas	Candidates Responding/Total Points Made
Treasury Management/Control - Organisation - Acquisition integration	6 / 7
Corporate Finance - Capital structure/rating - Acquisition evaluation - Dividend payment - Investor & capital market/relationship management	11 / 19
Funding - Availability/refinance risk - Characteristics eg maturity profile - Fixed capital intensity	10 / 11
Liquidity - Counterparty risk - Cost base - Cash management (excise duty; trapped cash) - Working capital	11 / 15
Risk - Currency - Interest rate - ERM	10 / 15

The key financial risks noted in the company's Annual Report are:

- liquidity risk, including capital structure and leverage
- fx rate exposures
- counterparty risks
- increased cost base
- missed or wrongly valued acquisition opportunities

QUESTION 4 **[8 marks]**

I have 17 key points so ⅓ mark for each good point.

Marking: 4.a

- Variability^2 = (β^2 x market variability^2) + specific risk^2. [1] Average 30+%.
- Variability % (LBS name for volatility) is the standard deviation [2] of period returns to shareholders, dominated by share price volatility. [3] A measure of "overall riskiness" [4] of the share. The greater the overall risk of the business the lower should be the gearing. [5]
- Beta - the most important [6] and widely-used metric for equity risk. Measures the relative [7] volatility and therefore relative riskiness of the share against the stock market ([8] co-variance - of share/market divided by variance of market) - because it measures the non-diversifiable [9] risk 1.0 is average, [10] 0.3 very low, 1.7 very high. 0.3 beta means, on average, [11] a 3% movement in the share for every 10% movement in the market also referred to as the slope [12] of the regression line. Beta is used in calculating the company's equity risk premium on β (R_m - R_f).
- Specific risk % is the residual volatility [14] (diversifiable risk) [15] after stripping out the non-diversifiable risk. Standard deviation of returns around the regression line rather than the mean. [16] Reflects risks specific to the company and the sector. [17]

(4 marks ; 7 mins)

Marking: 4.b

I have 19 points so ⅓ mark for each good point.

- Variability % reflects the impact of all kinds of risks [1] on the company's share price.
- Steady reduction from [2] 25% (low) to 15% (very low). [3] (Utilities lowest at about 10%).
- See below for possible (low) [4] reasons
- Beta - fluctuates around 0.64 but with no particular [5] trend, only the upwards blip in 2008 and the over adjustment ? downwards in 2009. [6]
- This means that overall the company under-reacts to movements in the stock market and the general economy. [7] The produce is addictive and demand is not particularly price-sensitive [8] - if demand falls (as it has in 2008-9) company can put up prices to protect sales and earnings.
- Also delivering demand in developed countries (regulation & health risk awareness) is offset by market growth in the developing world. [9]
- Specific risk shows same trend as variability [10] (risk reduction) ie 23% falling to 13%, (very low). [12]
- Reasons - possibly the main identifiable specific risk factor is the variable threat of litigation [13] especially in US and the worst seems to be over. But the health issues are now well known [14] - so stable.
- Otherwise a big company, cash generative, big revenue collector for the taxation, mature business, [15] very profitable, reasonably geographically diversified.

- Well managed [16] with a coherent acquisition and growth strategy confined to the industry it knows well.
- Probably as low as it can get on risk metrics!
- Increased β in 2008 reflects [18] higher gearing. Ungeared β in line [19] with average.

(4 marks : 7 mins)

	2005	2006	2007	2008	Now?
Beta	0.64	0.61	0.65	0.70	0.653
Gearing D/EV	0.1565	0.1284	0.1266	0.2133	
D/E	0.8716	0.8716	0.8734	0.6757	
Gearing	0.186	0.180	0.145	0.316	Ave 0.207
Ungeared Betas	0.56	0.54	0.59	0.57	Ave 0.565

NB Assume t = 0.27 throughout   1 - t = 0.73

QUESTION 5 **[12 marks]**

I have 17 points (could be more) so ⅓ mark for each good point.

Marking: 5.a

<u>Key Dimensions</u>

- Time horizon [1] of funding policy, with review dates.
- Medium-term gearing [2] / leverage, with max and min limits.
- Defined in terms of Balance sheet gearing/market value leverage/ [3] EBITDA/cash interest cover/or EBITDA/debt multiples.
- Target rating referenced to rating agency target [4] ratios / peer group comparisons.
- Bank versus capital [5] market debt proportions : instruments to be used.
- Maximum debt [6] exposure to any one name.
- Term structure/profile [7] of debt/ maximum re-financing amount or % in any one year.
- Currency mix (Euro [8] /USD/GBP/other).
- Gross reference to tax re. debt financing.
- Dividend v [9] share-price growth policy (shareholder return and value).
- Share buy-back [10] policy.
- Funding principles for [11] acquisitions.
- Funding principles for [12] subsidiaries.
- Group policy on [13] guarantees.
- Use of derivatives. [14]
- Interest rate policy.[15]
- Responsible ? /authorities. [16]
- Documentation/covenants. [17]
- Diversification re geographical markets.[18]

(5 marks : 9 mins)

I have 23 points, probably lots more, so 0.4 mark for each relevant point.

Marking: 5.b

Key Considerations, Constraints, Opportunities

- Growth, prospects and strategy [1] going forwards (medium/low organic growth with acquisitions).
- Level of business risk low, much lower than previously. [2]
- Litigation risk - the worst is over? [3]
- Strength and stability of cash flows. [4]
- Likelihood and size of cash demand for capital investment [5] and acquisitions. [6]
- Sector easily understood by debt, bond and equity markets. [7]
- Stable operating cash flows, cash generative [8] (£630m/year after interest, £903 before), working capital cash generative, capex very stable and less than 10% above depreciation.
- Strong cash interest cover [9] (3.31 on average after dividends, 8.02 times before dividends).
- (Strong cash dividend cover, [10] (after interest 1.49 times). 68% [11] payout in P&L terms).
- Strategic acquisitions historically cost between 62m and [12] 2127m in a given year.
- Shares have been bought back [13] costing on average, 585m in each of the last four years, essentially funded by debt.
- Current debt maturities - 2009 (current) £2724 is largest refinancing spike [14] (22%). Otherwise 800m to 1600m per year (7% to 13%).
- Effective tax rate lowish at 28%, rising, so rate at which debt is sheltered probably not much above 30%. [15]
- Cost of equity low (7.4%), cash cost of dividends 4.6% vs. after-tax cost of debt c. 4.2% - not much difference. Flat WACC curve. [16]
- EV leverage 21%, EBITDA leverage 2.1, EBITDA and Interest cover 10.4 - servicing and repayment comfortable. [17]
- Probably large amount of cash from sales tax due to revenue [18] authorities - minimum cash balance 1bn to 1.5bn.
- Probably predominance of capital [19] market debt for term funding, bank facilities for acquisitions, [20] re-financed later.
- US [21] a prime market for debt funding of tobacco companies, also Europe, UK following sales.
- International, multi-currency revenues. [22]
- Big advantages of centralised debt funding via bonds, syndication. [23]

(7 marks : 13 mins)

QUESTION 6 **[32 marks : 58 mins]**

(a1) INTEREST RATE RISK **(8 marks : 14½ mins)**

Arises from interest paid on debt and interest received on deposits and the consequent impact on interest cover and on level/volatility of eps.

(b1) Floating/fixed mix (case p20) is approx:

Debt		**Interest**		**Cash**
Floating Fixed	£2,609m £9,552m	Received Paid	£267m (658)	£2,309m
	£12,161m	Net	(391)	

Effective interest rate (from case background) is 6.9%

[This implies "interest paid" of £839m ~ v ~ £658m in the P/L. However debt has almost doubled in past year, so £658m interest paid reflects the *average* debt over the year].

Effective tax rate (from case background) is 27.8%

PBT is £3,684
PAT is £2,659

P&L Sensitivity (before hedging)

± 100 bp on £2,609m = ± £26m

PBT impact = ± (26/3,684) = ± 0.7%

PAT impact = ± [26 x (1- 0.278) / 2659] = ± 0.7%

The level of cash is similar to debt, so if the cash is floating there is a natural hedge.

Interest Cover Sensitivity

EBITA / Interest Paid

= (4,074 + 80) / 658 = 4,154 / 658 = 6.31%

Interest Impact = 4,154 / (658 ± 26) = 6.07 - 6.57%
$\simeq$ + 0.25%

(c1) Policy to cover *inter alia*:

- % range fixed/capped (floored)
- time horizon
- differentiate current year/longer term
- offsets
- instruments used
- pre-hedging of proposed debt issuance

(a2) COUNTERPARTY RISK **(8 marks : 14½ mins)**

Arises from direct risk on deposits, mark-to-market positions with derivative counterparties, settlement, contingent exposure on capacity of lenders to meet future demands

(b2) Cash & Equivalents = £2,309m

Derivatives (case p21)

- IRS = £1,712m	- Average maturity 4 yr approx.
- Cross-currency = £860 approx.	- Average maturity 4 yr assume
- Forward fx = £2,300 approx.	- Average maturity 3m assume

Cash Counterparty Risk

In theory, all at risk save guarantee scheme amounts, so very significant risk with no direct hedge except set-off agreement with individual banks.

Derivative MTM Credit/Replacement Risk

- IRS: say PV of ± 1% of £1,712m for 4 yrs discounted at 6% = £59.32m

- Cross-currency: say PV of ± 5% of £860m for 4 yrs discounted at 6% = £149m.

- Forward fx: say PV of ± 10% of £2,300m in 3m discounted at 6% = £226m.

These numbers are a rough estimate of the company's credit risk on its financial derivative counterparties. They are also the potential collateral requirement of the counterparties if rates move against the company.

(c2) Policy to cover:
- measures of counterparty quality eg rating, CDS spread
- limits eg amounts, term
- offset agreements
- exposure calculation eg for derivatives
- action on downgrade
- permitted instruments for placements

(a3) FX TRANSACTION RISK **(8 marks : 14½ mins)**

Arises from underlying trading cash flows in foreign currency, from periodic payments such as dividends and from occasional payments for investment/capex and acquisitions/disposals.

(b3) There is little hard data in the case on which to estimate trade flows. It is probable that manufacture is largely domestic and that the purchase of leaf, where not grown locally, will be the major driver.

As a rough estimate, possibly 10% of revenue could be exposed to transaction risk. Using the same assumptions for fx forwards as at (b2) above:

± 10% (£12,122 x 10%) for 3m discounted at 6% = £114m

(c3) Policy to include:

- treatment of contracted flows
- treatment of forecast flows
- time frames
- trade ~ v ~ periodic ~ v ~ occasional flows
- netting (third party and intra group flows)
- instruments (eg forwards, options, swaps)
- (hedge accounting issues ?)

(a4) FX TRANSLATION RISK **(8 marks : 14½ mins)**

Arises from changes in currency values which impact the consolidated accounts
ie B/S, P/L.

(b4) To assess the impact on gearing and net worth you need data by currency for net worth, debt and cash. This is not directly reported in the case so you need to assemble it and make some assumptions:

	Group (p11)	Sterling	Other Currencies (by difference)
Net worth	7,215	1,430 (note)	5,785
Debt	12,161	1,754 (p20)	10,407
Cash	2,309	219 (p19)	2,090

Note: Assume max 20%, as there is relatively little manufacture in the UK.

Gearing Net Worth

Net worth ± 10% currency = ± £579m ie ± 8% total

Net Debt ± 10% currency = ± £832m [(10,407 - 2,090) * 10%]

ie, Net gearing increases $\frac{9852}{7215}$ = 1.37 to $\frac{10684}{7215}$ = 1.48 (ie 8% increase)

The changes are sizeable although a unidirectional shift in all currencies is unusual.

Making further assumptions about segmental currency earnings (p16), the impact of fx changes on interest cover could also be estimated.

(c4) Policy to include:

- what to hedge/not hedge, eg:
  - net worth
  - interest cover
  - gearing

- method of hedging, eg:
  - structural
  - derivatives

- (hedge accounting issues)

For (a) there was an easy mark for each of the four short definition mentioning:

(1) Debt and depos, with extra points for fixed rate bonds
(2) Depos and derivatives with extra points for risk of availability on undrawn committed facilities
(3) Trade and periodic transactions
(4) B/S, P/L

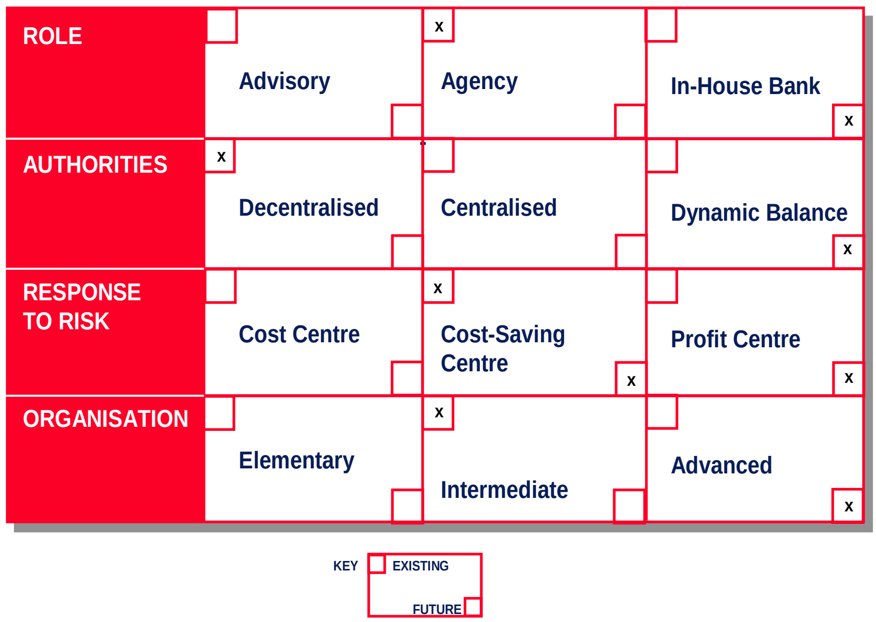
For (b) there was a total of 16 marks for assessing materiality. The relevant information in the case was dispersed and in some cases qualitative so assumptions had to be made, requiring a good feel for the scope of the various risks.

Recognising the difficulty of drafting specific policies based on summary data in a relatively short case, Part (c) asked only for the dimensions of a policy ie, the areas which the policy should cover, with three marks for each policy area. Four or five key points for each area merited a pass.

QUESTION 7 **[10 marks : 18 marks]**

One way for a candidate to structure the answer would be to profile the existing treasury set-up, as implied by the inefficiencies listed in the Question, on the Treasury Organisation Profile and then to indicate the profile shift which would enable a remedy. For example:

Treasury Organisation Profile



The answer could then be built around action required to affect the shift, eg in-house bank portfolio management of fx transaction risk, out-sourcing/shared service centres for routine operations.

An alternative approach would be to ignore the Treasury Organisation Profile and work to the specific problem areas highlighted in the question:

- rationalise bank relationships/accounts
- standardise cash flow forecasting
- initiate shift to in-house bank
- fx transaction risk centralised and managed externally on a portfolio basis
- group cash pooling/netting
- service centres to handle routine operations
- group treasury to focus on risk management and adding value to business

Most students adopted the latter approach. A minority put their faith in a TMS to remove all inefficiencies, while others struck out alone in a free-form prescription about integrated treasuries.

For a pass mark, candidates needed to address sensibly a majority of the problem areas highlighted. Thereafter the examiner was looking for evidence of some feel for the organisational as well as the technical issues.

So students earned brownie points for flagging behavioural/process issues in effecting this massive shift in treasury organisation, eg the need to engage with the business managers and to distinguish between providing "enablers" (eg systems) and working to change behaviours (eg thinking "de-risking" rather than "profit centre").

(10 marks : 18 mins)

Examiner's Report

Question 1
Question content: identify at what stage in the product/market life cycle is the company, giving reasons, also what are the implications for marketing, financial management, corporate finance and shareholder value.

This was generally well done with an average mark of 61% and 11 passes out of 13 candidates. Everyone identified this as a mature business, less so in the developing world than in Europe and the USA. The implications for the functional areas of management were generally well brought out. Compared with earlier sittings there was much less evidence of candidates “dumping” pre-prepared analysis on non-financial topics that the question did not ask about.

Question 2
Question content: a very technical four-part corporate finance question requiring calculation/estimation, for the case-study company, of a WACC, sustainable free cash flow, enterprise valuation and a comparison with the actual market value, with commentary on any difference.

This question again was very well done with an average mark of 73% and a pass rate of 100%. On the core sustainable cash flow and valuation calculations everyone seemed to have a strong grasp of the methodology. The only criticism, of one or two candidates, was that they showed poor judgement in relation to some of the assumptions, and the resulting cash flow and valuation numbers, as if they had no real feel for what they were doing and what the outcome should be. But, compared with the technical deficiencies of some of the earlier sittings, this was much, much better.

[For question 3 see later]

Question 4
Question content: the company's shareholder volatility/risk metrics (variability, beta and specific risk) were given for the last five years. In this two-part question candidates were asked to define the three measures and explain their significance for corporate finance, then invited to comment on any trends in the measures over the period.

This question divided the candidates, with an average mark of 55% and a pass rate of 54%. The first part revealed that a majority of candidates did not understand the fundamental statistics behind these measures of diversifiable and non-diversifiable risk. Many of them tried the formula relating the three measures but got it wrong. In addition, quite a few thought that specific risk was the non-diversifiable component, thereby revealing conceptual confusion as well. I regard this question as a "banker" offering easy marks, and it appears regularly in the exams, because the much-used beta is a fairly dodgy metric which practitioners need to understand as fully as possible if they are to use it.

Question 5
Question content: a tricky two-part question about the considerations relevant to drawing up a "funding policy" for the company. It asked for a) the appropriate "topic headings" in such a policy and b) the constraints and opportunities relevant to the writing of such a policy for the company in question.

This "open-ended", rather more-qualitative question proved to be an excellent discriminator between the very good candidates and the rest. The weaker candidates did not show much in the way of imagination or creative analysis about how the company's situation might influence, stimulate or constrain its funding policy. Some answered a completely different question. The average mark was only 51%, with just 5 passes out of 13.

Overall comments on Questions 1, 2, 4 and 5
This was a very good performance by virtually all candidates, with an average mark of 62%. There were 12 passes and 1 very marginal fail out of 13. The questions were varied and quite testing, with questions 4 and 5 proving the most difficult for the relatively weaker candidates. My marking notes contain a lot of "excellent" comments next to the better candidates, which is why three candidates achieved 70% plus and another three 60% plus. Even the weaker candidates received a lot fewer "weak", "thin" and "error" comments than on the general examination.

Question 3
Question content: Based on responses to Questions 1 and 2, students were asked to identify the five most significant issues within the treasury/corporate finance functions confronting the company in the medium term.

The response to this question should flow naturally from considerations surrounding Questions 1 and 2. Candidate choices were evaluated in terms of credibility/relevance, quality of the narrative and degree of spread across the full range of treasury/finance functions; the majority of candidates scored well on all three dimensions and the rest on at least two. The pass rate was 100%, ie thirteen out of thirteen, with an overall average mark of 64%.

Question 6
Question content - The company is exposed to at least four typical treasury risks: (i) interest rate risk, (ii) financial counterparty risk, (iii) fx transaction risk, (iv) fx translation risk. For each of these four risks candidates were asked to explain how the risk arises for the company, its materiality and the key policy dimensions which treasury would need to prescribe in order to manage the risk.

The pass rate for this question was low at four out of thirteen, with an overall average mark of 44%. Candidates clearly understood how each risk arises and scored well in the first part of the question but less well on materiality and disappointingly on policy dimensions. Omission of parts of questions was noticeable.

Question 7
Question content - The historical development of TIG plc has resulted in a complex organisational structure in which, despite significant progress, elements of decentralisation still persist, resulting in some inefficiencies which were listed in the Question. Candidates were asked to describe the actions which they believed treasury would need to take to support the Finance Strategy of delivering integrated financial performance management processes that deliver added value to the business.

The pass rate was seven out of thirteen with an overall average mark of 50%. There was some evidence here of a bi-polar distribution of marks, with those who passed averaging 62% (range 50 - 69%) and those who failed averaging 35% (range 0 - 49%). Despite the broad list of issues provided in the question, some took a rather narrow “TMS” approach in their responses.

Summary - Question 3, Question 6, Question 7
In sharp contrast to the corporate finance and funding questions, the pass rate for the treasury and risk questions was five out of thirteen, with an average mark of 49%. Excluding Question 6 from this analysis the pass rate for Questions 3, 7 was eleven out of thirteen with an average mark of 57%, more in line with the corporate finance and funding scores. So it was the marks for the policy-related question which depressed the overall scores.