TREASURY, RISK
AND FINANCE
PROFESSIONALS
ACT

Examination Paper, Solutions and Examiner's report

Paper: MCT Case Study Exam

October 2009

MCT Case Study Background information based on PROTEK plc

CASE STUDY: PROTEK plc

1. SUMMARY BACKGROUND

Protek's vision is to be a leading supplier of high-value consultancy, engineering and project management services to the world's energy, power and process industries.

At end-2008 key financials were:

	£m
Revenue	2606.4
Profit before tax	306.6
Profit after tax	209.7
Total assets	2090.3
Debt	0.1
Cash, s.t. invest	764.6
Equity (book)	988.6
Market cap.	2266.0

The company has 22,000 employees in over 30 countries with major operations in the UK, Europe and the Americas.

Up to 2005 Protek was a full service, "lump sum" project contractor in the construction sector. "Lump sum" is a generic description for a fixed price contract to construct something, eg a power station. In 2006 a strategic decision was taken to change the risk profile of the business, narrowing the focus and moving to a services-based model which would reward the company's ability to deliver projects safely, on time and on budget - a strategic shift from "making" to "managing".

This strategic shift required substantial disposals and a series of acquisitions which are still in train. The company is now perceived as "support services" rather than "construction".

Services are focused on consulting, designing, managing the delivery of (ie resourcing), and maintaining strategic and complex assets such as offshore oil and gas production facilities, mineral or metals mines, or power infrastructure.

The group's core divisions comprise:

- Natural Resources
    - Oil and Gas Services
    - Oil Sands
    - Minerals and Metals Mining

- Power and Process
    - Process
    - Power
    - Nuclear

- Earth and Environmental

The remainder of this case study is divided into these sections:

2. HISTORY AND TRANSITION 2005 - 2007

The current components of Protek (Natural Resources, Power & Process, Earth and Environmental) existed in the old Protek as Energy and Process (E+P).

These were good businesses but had been long overshadowed by the vagaries and generally poor performance of the construction parts of the group, the so-called 'lump sum' contracting. As the strategy to focus on these three components of the old Energy and Process emerged one equity analyst recorded his perception of these businesses in Autumn 2007, prefaced by a summary of events precedent.

2.1 PAST HISTORY SUMMARY

In the 1990s the group had been a major player in UK construction, support services, Private Finance Initiative (PFI) and engineering services for the Oil & Gas industry. It had made two major overseas expansions, the acquisition of French services group Espey and North American engineering consultancy Fielding**.** A combination of US industrial slowdown, construction losses, major investments and cash flow issues in the first half of this decade led to a review of group structure, instigated by the then CEO Paul Menzies, who retired last year. Espey was sold to a private equity group for €1bn and a potential separation of Energy & Process and Built Environment was mooted.

New CEO, Sean Bannister, who joined in October, announced the proposed disposal of Built Environment - Construction, Building & Facilities Services, Property and PFI, plus Pipelines within Power & Process. All have been sold with the exception of BFS, which we believe is imminent. Wind Energy is the one Built Environment business to be retained, albeit temporarily.

At his first investor briefing, in December, Bannister also surprised many by publishing demanding EBITA margin targets of 6% for 2008 and 8% for 2010. In the preliminary results in March he suggested these may have been conservative. The earlier phase was to be driven by the **Step Change** programme, in which £112m of cost savings were identified. The higher, longer term target would be supplemented by **Operational Excellence**, which would be focussed on better business processes.

E&P has now been sub-divided into three new divisions: Natural Resources (engineering and project management services for the oil, gas and mining sectors): Power & Process (engineering and operational support for the power generation and distribution sectors, including nuclear, and engineering services mainly for North American industrial groups) and Earth & Environmental (a wide range of environmental consulting, monitoring and project management services).

The AGM statement, interim trading statement and the insight into operations and strategy on the trip to Calgary have all helped maintain the strong newsflow. The strong oil price, investment requirements among oil and gas, mining, power and environmental clients, good results from peers and speculation that Protek would bid for a major rival (Wood Group was mentioned in the press) have all added to the price momentum until the recent stock market jitters.

2.2 NEW SEGMENTATION : ENERGY AND PROCESS

Most of these operations are essentially white collar engineering, management and support rather than blue collar fabrication or operation.

NATURAL RESOURCES

These involve the design, project management and services in support for extractive industries groups and do not involve any physical extraction, such as contract mining.

There are three subdivisions.

- Oil and Gas. Explored in detail in the Baku analysts' trip in May. This has grown out of Protek's longstanding major presence in the offshore sector of North Sea activities. It designs and project manages the provision of topsides for production and storage platforms, but not jackets. It does not participate in exploration, drilling or sub-sea activities, and so is arguably later cycle and, although margins appear lower than some peers, it argues it has less capital employed. It also provides extensive maintenance and other support services for oil companies. Protek was one of the earliest exponents of partnering relationships in the North Sea. Clients include most of the North Sea majors, with strong relationships with, for example, Shell and BG. There appear to be good growth prospects in emerging markets such as Azerbaijan, Kazakhstan and West Africa.

- Oil Sands. The result of the Fielding acquisition. Protek provides engineering services and management for the extraction and processing of oil from the extensive reserves of oil sands in Canada. Clients include eight of the nine major producers, particularly Shell, Syncrude and CNRL.

- Minerals and Metals Mining. This subdivision supports mining companies mainly in North America and has been delivering undisclosed but "stellar" margins not only through 2005, but into H1 2006, when earlier guidance had suggested a decline. There are new opportunities in South America.

POWER AND PROCESS

This business is technical design and consultancy and asset support principally for the power industry and manufacturing groups. (There is a degree of lump sum delivery in both the US and the UK). The attractions to us (at least when demand is growing) are that the business model is: (1) front-end loaded to design and earlier phases in the investment cycle, such as feasibility; and (2) relatively highly operationally geared, since there is a high fixed cost base of qualified technical staff and IT requirements. Of course, this works against you when demand collapses, as it did in the aftermath of the Enron debacle in 2001.

- Americas. Originally the industrial engineering business that was part of Fielding. Engineering design and consultancy for major power companies in the US as well as general manufacturing industry from cement to food producers. A collapse in investments by electricity generating companies and a parallel decline in general manufacturing led to a sharp fall in Protek group profits in 2002. Since then the group has cut staffing and reduced the cost base by US$39m or 52%. For the past 18 months or so there has been increasing evidence of a turnround, first in enquiries and then hard orders, up 30% at the half year. A sign of this was that the division is now seeking 1,400 new engineers.

- UK. More of an element of blue collar support services than the North American business. It did not go through the same decline as the American part and is seeing opportunities such as the upgrading of old infrastructure for the gas and electricity utilities, expansion of gas storage facilities and, looking forward, new power generation. The order book was up "significantly" to £900m at the half year stage and the division is planning to more than double the 2004 blue collar headcount by next year.

- Nuclear. This division has been the focus of much attention since the UK government raised the prospect this year of a possible new generation of power stations. That, clearly, is well into the future. But in the meantime, there are significant opportunities in project management and engineering services related to the decommissioning of nuclear plants in the UK, North America and Eastern Europe. Recent events have been last year's £25.3m acquisition of AN Holdings, a consultancy specialising in whole life services to the nuclear industry in the UK, Canada and the former Soviet Union, and the forming of an alliance with UK Atomic Energy Authority and Carlmount, to bid for work as part of the UK's proposed nuclear decommissioning programme.

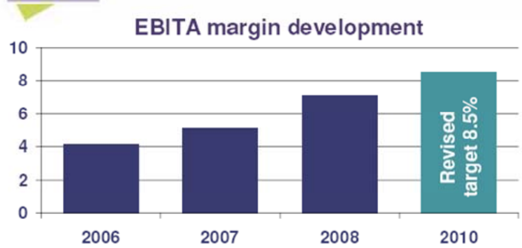
EARTH & ENVIRONMENTAL

This is the North American centred environmental consultancy. It offers a wide range of monitoring, consultancy and project management services to the energy and range of other industries. Its characteristics are probable steady long-term growth in demand and relatively good quality, lower risk earnings. It has ongoing work with US military in the Gulf region (100% Protek, not the JV with Spartak reported in Power & Process, which is likely to come to an end of its contract with the US Corp of Engineers later this year).

2.3 TRANSFORMATION PROCESS

Differentiating Protek

- Journey to 2010 started in December 2006
- First stage of journey complete
  - 2008 margin target exceeded
- Second stage well advanced

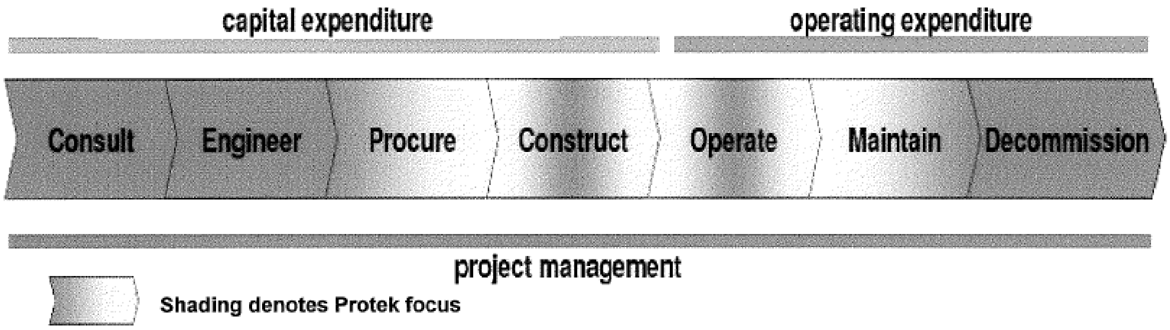


On track to deliver revised 8.5% EBITA margin in 2010

3. CURRENT BUSINESS

3.1 OVERVIEW

Protek provides "total life of asset" services focused on the design, delivery and maintenance of strategic and complex assets.

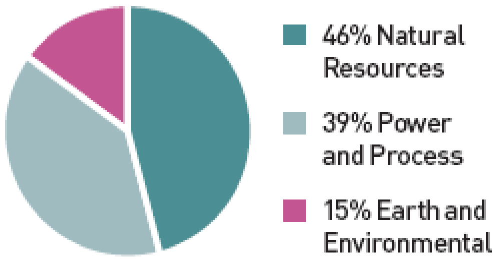


The corporate vision is to be a leading supplier of high-value consultancy, engineering and project management services to the world's energy, power and process industries.

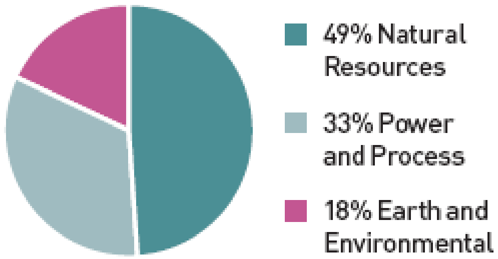
Protek has major operations in the UK and Americas and work internationally for customers from the Arctic to Australia, employing over 22,000 people in more than 30 countries worldwide (see illustration on Page 8).

Customers range from blue chip companies to national and local governments on both sides of the Atlantic. The largest customer accounts for some eight per cent of total revenues.

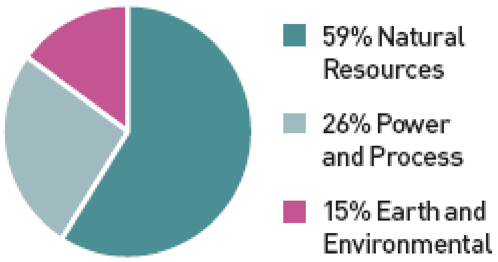
% group revenues[1]



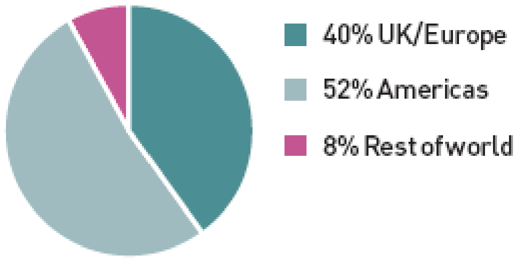
% group average employees[1]



% group EBITA[1]

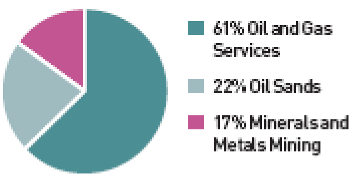


Geographical analysis of revenue



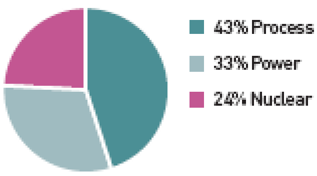
Natural Resources

% divisional revenues 2008



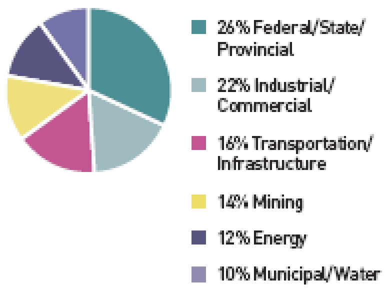
Power and Process

% divisional revenues 2008



Earth and Environmental

% divisional revenues 2008



Oil and Gas (including Oil Sands)

We consult on, design, manage delivery of, maintain and upgrade production assets for a broad range of oil and gas companies worldwide.

We provide services across the value chain to public and private sector customers, including major utilities, principally in the UK and Americas.

We provide consultancy, engineering and project management services for public and private sector customers, primarily in the Americas.

Minerals and Metals Mining

We advise on, design and manage delivery of mining infrastructure for customers, mainly in the Americas.

Nuclear

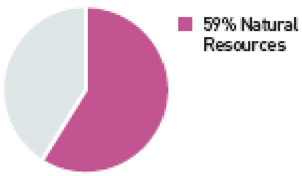
Protek is one of the leading providers of technical consultancy, engineering services and programme and asset management to the nuclear industry.

3.2 DIVISIONS : NATURAL RESOURCES (NP)

Description of business

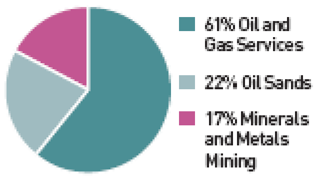
Principal activities: Oil and gas Services, Oil Sands and Minerals and Metals Mining. Total life of asset services ranging from engineering design through to decommissioning.
55 per cent of 2008 revenues generated by asset development (Capex) services, with the remainder in asset support (Opex). Activities mainly in the upstream sector (85 per cent of 2008 revenues), with the balance being in midstream and downstream.

Natural Resources
% group EBITA* 2008

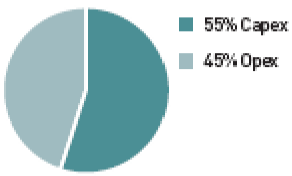


*Excluding the Investments and other activities division

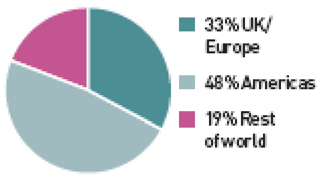
Principal activities
% divisional revenues 2008



Capex/Opex
% divisional revenues 2008



Geographical analysis
% divisional revenues 2008



£ million	2008	2007	Change (%)	Underlying[1] (%)
Revenue	**1,204.2**	1,014.8	+19	+11
EBITA	**129.3**	95.5	+35	+24
EBITA margin (%)	**10.7**	9.4	+130 bps	
Net assets	**46.4**	28.8	+61	
Order book (£bn)	**1.71**	1.21	+41	
Average number of employees[2]	**10,713**	9,715	+10	

1 Growth adjusted for currency movements and material acquisitions made during the year as a percentage of 2007 as reported.

2 Full time equivalents, including agency staff.

• **NP Business overview**

The Natural Resources division, comprising the Oil and Gas Services, Oil Sands and Minerals and Metals Mining businesses, provides services to an increasingly broad range of customers around the world. The business has strong, long-term relationships with customers and is today recognised as a world leader in the provision of engineering and project management and asset support services, with particular expertise in large and complex projects in growth regions and in extending the life of assets in the mid-late stages of their life cycle.

The business portfolio is well balanced by geography, by end market, and in terms of the nature of services provided. Protek is differentiated in its ability to offer customers services and tools including specialist environmental services (via the Earth and Environmental division), training and development, and a sustainable approach to business in frontier regions. Around 80 per cent of the division's engineering and project management staff have skills which are transferable between market sectors.

The business is focused on the provision of services to a balanced portfolio of customers. Contract types are varied, both by region and by nature of service, ranging from Capex multiplier contracts with rewards to reimbursable Opex contracts with performance incentives. The revenue profile of the division spans short-term (less than 12 months) consultancy services, to long-term (five years or more) engineering asset support contracts. EBITA margins range from around eight per cent on average for Opex services to 13 per cent on average for Capex contracts.

During 2008, Natural Resources improved its competitive position through internal performance improvement and acquisitions with specific strategic imperatives in the areas of technology, systems and processes, geographical footprint and access to customers. The Operational Excellence programme is expected to be the major contributor to further enhancements in performance of the division over the next two years.

• NP Oil and Gas Services

Protek offers a wide range of Capex and Opex services to an increasingly broad range of customers, which includes International Oil Companies (IOCs), National Oil Companies (NOCs) and independent operators in Europe, Americas, Middle East and North Africa, the Caspian, South East Asia and China. It has particular strength in the mid-late cycle and does not operate in early cycle exploration or drilling.

	Services	**Facilities**
Capex	• Construction management • Consultancy • Design engineering • Front-end engineering • Hook up and commissioning • Installation	• Offshore fixed platforms • Offshore floating production units • Onshore booster stations, gathering centres, tank farms, gas-oil separation plants
Opex	• Brownfield engineering and project management • Duty holder • Facilities engineering • Operations and maintenance support • Production operations	• Offshore platforms and infrastructure • Onshore oil and gas fields

Oil and gas services contracts are cost reimbursable or cost plus and increasingly performance-based; no lump-sum fabrication is performed. Being services-based, capital employed reflects mainly current trading assets.

• NP Oil Sands

Protek is the market leader in project management, engineering services and the provision of infrastructure to the upstream surface mining oil sands sector. From helping to build the world's first oil sands plant in 1967 to the world's largest plant in 1978, Protek's operations have matured along with the industry, with participation in most recent oil sands developments.

Services in 2008 were provided on a reimbursable basis other than for some activities within the Oil Sands Infrastructure business which have fixed price elements.

• NP Minerals and Metals Mining

Protek offers mining consultancy (including ore resource estimation, mine planning and feasibility studies), design and project and construction management services to global mining customers producing commodities including potash, gold, diamonds, base metals, coal, iron ore and uranium. The business operates from strategic mining locations including Saskatoon, Toronto and Vancouver (Canada), Santiago (Chile) and Lima (Peru).

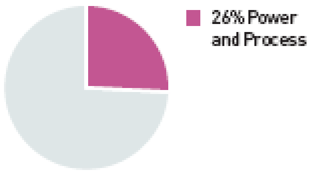
The business is a recognised leader in environments where projects have significant logistical challenges associated with remote location and difficult access. Protek occupies a top-tier position in international consulting and a leading position in the North and South American Engineering, Procurement and Construction Management (EPCM) markets.

3.3 DIVISIONS : POWER & PROCESS (P+P)

Description of business

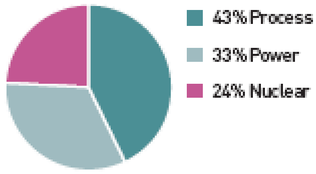
Principal activities: Total life of asset services to customers in power and process markets, principally in Europe and the Americas, and the nuclear market globally. 52 per cent of 2008 revenues generated by asset development (Capex) services, with the remainder in asset support (Opex).

Power and Process
% group EBITA* 2008

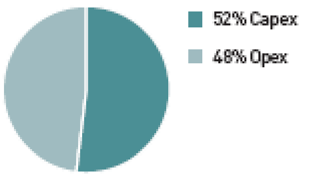


*Excluding the Investments and other activities division

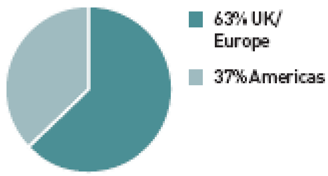
Principal activities
% divisional revenues 2008



Capex/Opex
% divisional revenues 2008



Geographical analysis
% divisional revenues 2008



£ million	2008	2007	Change (%)	Underlying[1] (%)
Revenue	**1,021.8**	1,009.1	+1	−3
EBITA	**58.3**	38.9	+50	+45
EBITA margin[2] (%)	**5.8**	4.3	+150 bps	
Net assets/(liabilities)	**6.3**	(57.0)	nm	
Order book (£bn)	**1.28**	1.36	−6	
Average number of employees[3]	**7,385**	6,753	+9	

nm Not meaningful

1 Growth adjusted for currency movements and material acquisitions made during the year as a percentage of 2007 as reported.

2 Excluding restructuring costs of £0.6 million (2007: one-off costs of STEP Change £4.6 million).

3 Full time equivalents, including agency staff.

• P+P: Business Overview

The Power and Process division, comprising the Process, Power and Nuclear businesses, provides services across the value chain to public and private sector customers, including major utilities, principally in the UK and Americas. The business continues to develop strong, long-term relationships with customers that have strong and scalable market positions in Protek's chosen end markets and geographical regions.

The business portfolio is diverse in terms of both end markets and the broad range of services provided. Protek is differentiated:

- in its ability to provide customers with cost effective solutions to large and complex requirements, with some projects being the first of their kind

- in its track record of safely delivering projects to its customers
- by the capacity to transfer engineering and project management competencies within and between sectors and/or businesses.

The Power and process business model continues to migrate towards the provision of low-risk services activity with high value add. Contract types in 2008 remained varied, with some 12 per cent of revenues coming from fixed price work. The revenue profile of the division spans short-term (less than 12 months) consultancy services, to long-term (five years or more) engineering services contracts.

The overall result of these differentiations and business approaches has led to a doubling of EBITA margin over the last two years.

• P+P: Power

This sector comprises the generation of electricity form all sources other than nuclear, together with electricity transmission and distribution. Here, Protek provides consulting and feasibility studies through to detailed EPC (engineering, project management, construction) contracting and commissioning services.

• P+P: Nuclear

Protek provides services across the nuclear life cycle offering programme and asset management, project management, consultancy, engineering and scientific services primarily in the UK, Canada, Central and Eastern Europe, South Africa and is developing it's position in South Korea.

• P+P: Process

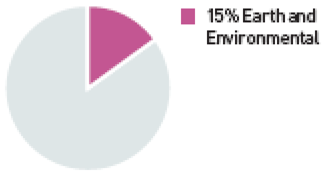
Process covers a broad range of industries, but principally gas processing and transmission, pulp and paper, petrochemicals and biotech.

3.4 DIVISIONS : EARTH AND ENVIRONMENTAL (E+E)

Description of business

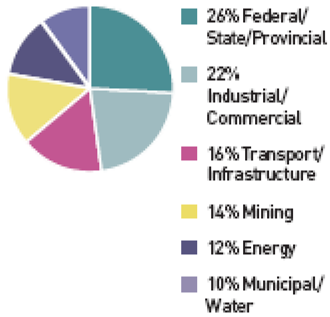
Principal activities: Specialist environmental, geotechnical, programme management, engineering and consultancy services to a broad range of customers in the public and private sectors. This business operates from a regional network and is typically characterised by a large number of small value contracts.

Earth and Environmental
% group EBITA* 2008

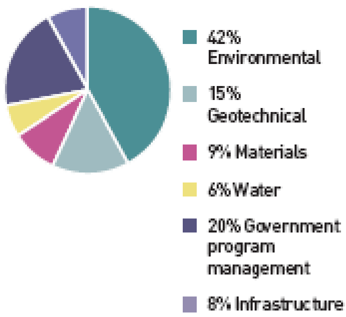


*Excluding the Investments and other activities division

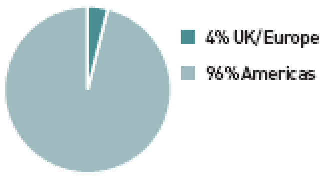
Principal activities
% divisional revenues 2008



Principal activities by service
% divisional revenues 2008



Geographical analysis
% divisional revenues 2008



£ million	2008	2007	Change (%)	Underlying[1] (%)
Revenue	**400.2**	288.4	+39	+19
EBITA	**33.5**	21.2	+58	+38
EBITA margin (%)	**8.4**	7.4	+100 bps	
Net assets	**49.6**	33.2	+49	
Average number of employees[2]	**3,933**	3,576	+10	

1 Growth adjusted for currency movements and material acquisitions made during the year as a percentage of 2007 as reported.

2 Full time equivalents, including agency staff.

• **E+E: Business overview**

The Earth and Environmental division is a leading international environment and engineering consulting organisation with full service capabilities covering a wide range of disciplines, including environmental engineering and science, geotechnical engineering, water resources, materials testing and engineering, engineering and surveying, and programme management.

Unlike Protek's other divisions, Earth and Environmental provides services from a branch network of over 140 offices, mainly in North America, but with an increasing presence in the growth markets of Europe and South America. With the vast majority of its activities falling outside the scope of engineering and project management services provided by the Natural Resources and Power and Process divisions, Earth and Environmental enables Protek to provide a broader range of services across the asset life cycle than many competitor companies.

This ‘halo’ effect can lead to Protek becoming involved in major projects at the time of the environmental impact assessment, before they even get off the ground.

Services are provided for a broad spread of public and private sector customers across the life cycle of their operations. Work is also performed for customers common to the Natural Resources and Power and Process divisions.

The environmental services industry is large and fragmented, providing opportunities for growth through bolt-on acquisitions. In recent years, Earth and Environmental has added to its geographic footprint and capabilities through acquisitions, mainly in North America and Europe, and intends to make further investments in the future.

The Earth and Environmental business portfolio is well balanced both by end market, and in terms of the nature of services provided, with the vast majority of the division’s employees being transferable between market sectors. The business is characterised by a very high number of small value contracts - in 2008 the division performed over 13,500 contracts with an average size of US$40,000.

During 2008, Earth and Environmental improved its competitive position through internal performance improvement and acquisitions in selected end markets and regions. The Operational Excellence programme is expected to be a major contributor to further enhancements in performance of the division over the next two years.

• E+E: Services

Earth and Environmental operates a ‘seller-doer’ business model employing specialist consultants in fields including engineering, biology, toxicology, sociology, chemistry, meteorology and planning.

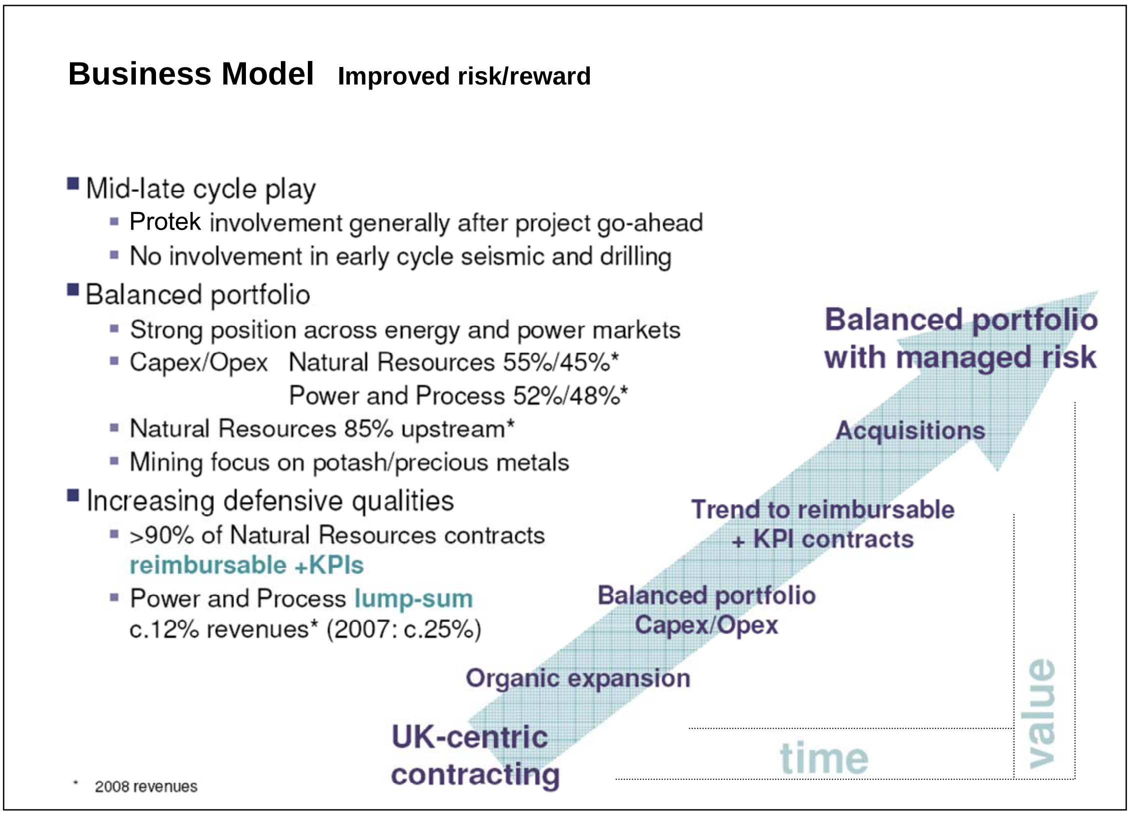
The following are examples of services provided by Earth and Environmental, principally in North America:

- Archaeology
- Architecture
- Climate change consulting
- Ecological studies
- Engineering design
- Environmental site characterisation
- Environmental impact studies and permitting
- Geotechnical design and analysis
- Infrastructure design
- Materials engineering, construction monitoring and testing
- Oceanography and meteorology
- Programme management
- Remediation planning and execution
- Socio-economic studies
- Tailings/waste dump design and construction monitoring
- Waste management
- Water and air quality
- Water management, development and protection

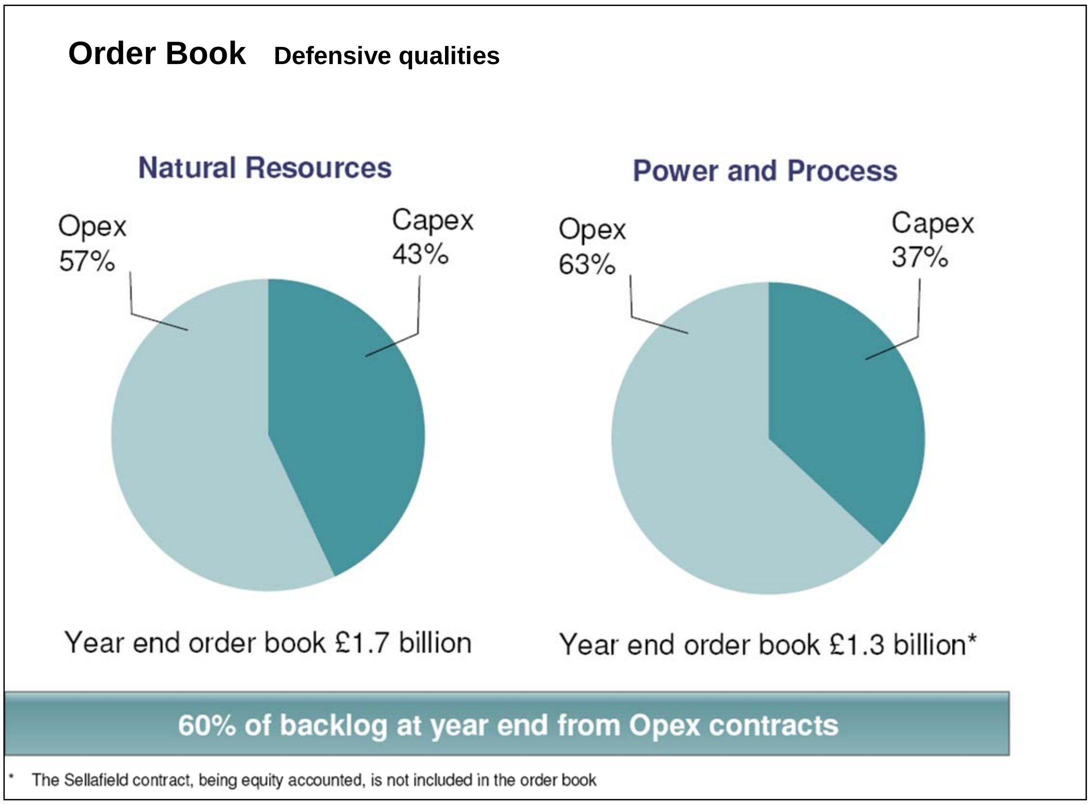
Earth and Environmental has many small contracts with some fixed price commitments in respect of certain federal activities and other consulting projects.

During 2008, Earth and Environmental continued to improve its geographical footprint and services capability through strategic acquisitions, further details of which are given on Page 18.

3.5 BUSINESS MODEL



3.6 ORDER BOOK

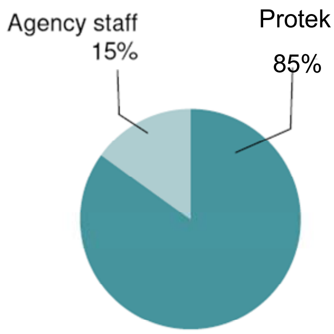


3.7 PEOPLE

People **Skilled and flexible employees**

- Agency staff provide operational flexibility
- >75% of Protek technical engineering staff can be deployed in different sectors/markets
- <25% employees are specialists in their fields
- Increased flexibility from investment in common tools and processes

Analysis of average employees 2008



Operational Excellence is further increasing flexibility

4. CURRENT BUSINESS - CONTRACT FEATURES

4.1 CAPEX & OPEX ACTIVITIES

Capex (capital expenditure) revenues derive from contracts for ASSET DEVELOPMENT:

- consultancy, design, engineering and management of new facilities and major upgrades

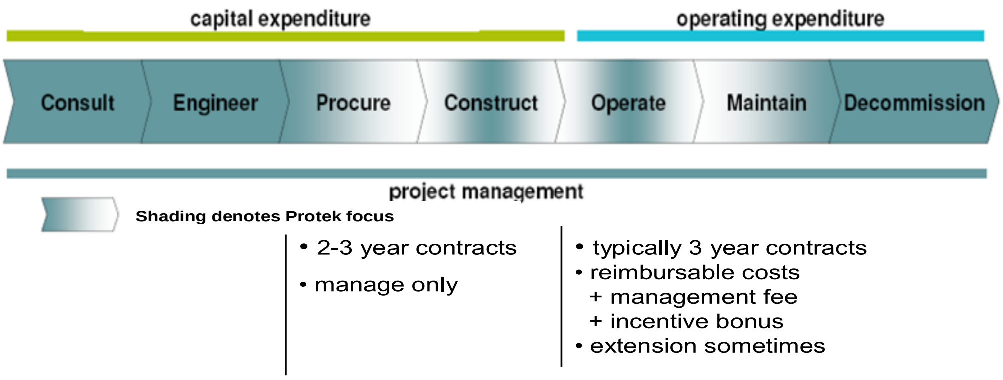
Opex (operational expenditure) revenues derive from contracts for ASSET SUPPORT:

- operation, management and support services such as maintenance, brownfield development and training.

Protek's mission is to provide "total life of asset" services. Capex contracts are at the beginning of the asset cycle and opex contracts cover the remainder.

This can be seen as a class of outsourcing.

Total Life of Asset Services



Capex and opex management skills differ so Protek seeks to maintain a stable balance around 50/50, using agency staff to achieve a balance.

4.2 PROTEK FOCUS

Protek's main focus is on the Procure/Construct phases (Capex) and the Operator/Maintenance phases (Opex). The Opex contracts are typically three year term but as the asset life is usually much larger, the contract may be extended.

Protek will also undertake initial project consultancy and engineering feasibility contracts if invited because these are often the stepping stones to the construct and operate contracts.

Opex contracts usually have three components:

- reimbursables on a cost plus basis
- management fee
- incentive bonus based on cost and performance.

Protek does not assume any tender-to-contract currency risk, in contrast with typical lump sum contractors.

5. CURRENT BUSINESS - SEGMENTAL ANALYSIS

5.1 REVENUE

2 Segmental analysis of continuing operations – Class of business

As the group's management and internal reporting are structured by class of business, this is the basis for the group's primary segment reporting.

The business and financial review is based on the reported results before joint venture tax, intangible amortisation and pre-tax exceptional items, but including joint venture profit before tax. The results as presented in the business and financial review are reconciled to those presented in this note in the tables on pages 57 and 58.

Revenue and results

For the year ended 31 December 2008	Natural Resources £ million	Power and Process £ million	Earth and Environmental £ million	Investments and other activities £ million	Total £ million
Total revenue	1,204.2	1,021.8	400.2	20.0	2,646.2
Internal revenue					(39.8)
Revenue					2,606.4
Segment result	128.8	55.3	29.0	105.5	318.6
Corporate costs					(37.4)
Profit before net financing income					281.2
Net financing income					25.4
Share of post-tax results of joint ventures	1.0	1.2	–	(2.2)	–
Income tax					(96.9)
Profit for the year from continuing operations					209.7

For the year ended 31 December 2007	Natural Resources £ million	Power and Process £ million	Earth and Environmental £ million	Investments and other activities £ million	Total £ million
Total revenue	1,014.8	1,009.1	288.4	64.4	2,376.7
Internal revenue					(20.5)
Revenue					2,356.2
Segment result	93.7	48.4	20.9	5.5	168.5
Corporate costs					(36.5)
Profit before net financing income					132.0
Net financing income					18.4
Share of post-tax results of joint ventures and associates	0.7	0.4	–	0.1	1.2
Income tax					(30.1)
Profit for the year from continuing operations					121.5

Corporate costs comprise the costs of operating the head office of Protek. These are not directly related to the activities of the segments. The financing of the group's activities is undertaken at a head office level and consequently net financing income cannot be analysed segmentally.

5.2 ASSETS AND LIABILITIES

Assets and liabilities

As at 31 December 2008

	Natural Resources £ million	Power and Process £ million	Earth and Environmental £ million	Investments and other activities £ million	Total £ million
Segment assets	337.5	253.3	159.2	31.3	781.3
Goodwill					345.5
Interests in joint ventures	0.6	3.9	0.3	24.6	29.4
Cash and cash equivalents					764.6
Unallocated assets					169.5
Total assets					2,090.3
Segment liabilities	(281.4)	(247.8)	(96.8)	(281.5)	(907.5)
Bank loans					(0.1)
Unallocated liabilities					(194.1)
Total liabilities					(1,101.7)
Net assets					988.6
Net assets					
Segment assets less segment liabilities	56.1	5.5	62.4	(250.2)	(126.2)
Goodwill					345.5
Interests in joint ventures	0.6	3.9	0.3	24.6	29.4
Net cash					764.5
Unallocated net liabilities					(24.6)
					988.6

As at 31 December 2007

	Natural Resources £ million	Power and Process £ million	Earth and Environmental £ million	Investments and other activities £ million	Total £ million
Segment assets	273.0	208.7	85.8	34.3	601.8
Goodwill					215.4
Interests in joint ventures	(0.2)	0.6	0.2	22.1	22.7
Cash and cash equivalents					734.1
Unallocated assets					223.8
Assets classified as held for sale	–	–	–	19.0	19.0
Total assets					1,816.8
Segment liabilities	(243.2)	(260.2)	(51.3)	(241.6)	(796.3)
Bank loans and overdrafts					(0.9)
Unallocated liabilities					(120.8)
Liabilities classified as held for sale	–	–	–	(5.4)	(5.4)
Total liabilities					(923.4)
Net assets					893.4
Net assets					
Segment assets less segment liabilities	29.8	(51.5)	34.5	(207.3)	(194.5)
Goodwill					215.4
Interests in joint ventures	(0.2)	0.6	0.2	22.1	22.7
Net cash					733.2
Unallocated net assets					103.0
Assets and liabilities classified as held for sale	–	–	–	13.6	13.6
					893.4

The unallocated assets and liabilities principally comprise assets and liabilities relating to the pension schemes, dividends and taxation and are not directly related to the activities of the segments.

Goodwill is not directly attributable to business segments and there is no reasonable basis for allocation of goodwill to business segments.

5.3 GEOGRAPHICAL ORIGIN

Revenue and results

	UK		Rest of Europe		Americas		Rest of the world		Total	
	2008 £ million	2007 £ million	**2008 £ million**	2007 £ million	**2008 £ million**	2007 £ million	**2008 £ million**	2007 £ million	**2008 £ million**	2007 £ million
Revenue	**1,017.1**	950.5	**34.1**	88.6	**1,340.3**	1,180.9	**214.9**	136.2	**2,606.4**	2,356.2
Segment result	**147.4**	70.0	**2.1**	6.4	**145.8**	89.3	**23.3**	2.8	**318.6**	168.5
Corporate costs									**(37.4)**	(36.5)
Profit before net financing income									**281.2**	132.0
Net financing income									**25.4**	18.4
Share of post-tax results of joint ventures and associates	**0.7**	(0.4)	**–**	0.2	**0.5**	1.0	**(1.2)**	0.4	**–**	1.2
Income tax									**(96.9)**	(30.1)
Profit for the year from continuing operations									**209.7**	121.5

The analysis of total revenue by geographical market is not materially different from that by geographical origin. There is no revenue from transactions between geographic segments.

Assets and liabilities

	UK		Rest of Europe		Americas		Rest of the world		Total	
	2008 £ million	2007 £ million	**2008 £ million**	2007 £ million	**2008 £ million**	2007 £ million	**2008 £ million**	2007 £ million	**2008 £ million**	2007 £ million
Segment assets	**261.0**	219.8	**24.1**	18.0	**441.0**	308.6	**55.2**	55.4	**781.3**	601.8
Segment liabilities	**(351.7)**	(347.6)	**(88.8)**	(74.1)	**(410.0)**	(324.5)	**(57.0)**	(50.1)	**(907.5)**	(796.3)
Segment assets less segment liabilities	**(90.7)**	(127.8)	**(64.7)**	(56.1)	**31.0**	(15.9)	**(1.8)**	5.3	**(126.2)**	(194.5)
Goodwill	**43.3**	28.1	**7.3**	–	**291.3**	187.3	**3.6**	–	**345.5**	215.4
Interests in joint ventures	**3.2**	0.7	**9.3**	6.1	**1.1**	–	**15.8**	15.9	**29.4**	22.7
Net cash									**764.5**	733.2
Unallocated net (liabilities)/assets									**(24.6)**	103.0
Assets and liabilities classified as held for sale	**–**	12.5	**–**	1.1	**–**	–	**–**	–	**–**	13.6
Net assets									**988.6**	893.4

6. FINANCIALS FOR 2003 - 2008

PROTEK plc

Profit and Loss Account

		Historical Data				
Accounts date	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Currency / units	**£ mill**	**£ mill**	**£ mill**	**£ mill**	**£ mill**	**£ mill**
Audit / man / fcst	**audited**	**audited**	**audited**	**audited**	**audited**	**audited**
Sales Revenue	4422.8	4,657.5	2,843.8	3,229.2	2,356.2	2,606.4
a (Cost of Sales)	(3,853)	(4,051.6)	(2,600.9)	(2,996.7)	(2,107.3)	(2,292.5)
a **Gross Profit**	**569.6**	**605.9**	**242.9**	**232.5**	**248.9**	**313.9**
a (Total Overheads)	(440.4)	(479.4)	(193.8)	(239.1)	(134.4)	(141.7)
a Other Operating (Costs) & Revenues						
a Exceptionals etc. +/-						
a (Amortisation / Impairment of Goodwill)	(17.0)	(21.6)				
b Cost of Materials, Other External Purchases						
b **Value Added**						
b (Personnel Costs)	(1,602)	(1,538.7)	(829.4)	(890.7)	(790.5)	(979.4)
b (Depreciation & Impairment)	(48)	(39.8)	(38.4)	(35.1)	(21.7)	(19.2)
b (R&D Costs)						
Operating Profit	**112.2**	**104.9**	**49.1**	**(6.6)**	**114.5**	**172.2**
Non-operating Income & Expenditure						
Exceptionals etc.	0.2	(30.8)	(60.9)	(107.8)	17.5	109.0
(Amortisation of Goodwill)						
Financial Income						
Income from Investments, Participations etc	12.5	23.1	11.0	9.8	1.2	
Other Financial Income & Expenditure						
EBIT	**124.9**	**97.2**	**(0.8)**	**(104.6)**	**133.2**	**281.2**
Interest Received & Paid						
Interest Received	25.1	28.7	11.7	12.2	22.1	32.1
(Gross Interest Paid)	(54.3)	(60.2)	(28.6)	(16.4)	(3.7)	(6.7)
Profit before Tax	**95.7**	**65.7**	**(17.7)**	**(108.8)**	**151.6**	**306.6**
(Current tax)	(34.9)	(43.1)	(0.7)	8.9	(30.1)	(96.9)
(Deferred tax)						
Profit after Tax	**60.8**	**22.6**	**(18.4)**	**(99.9)**	**121.5**	**209.7**
Extraordinaries, (amortisation of goodwill) etc			22.1	319.1	222.9	(10.7)
Minority Interests	(0.8)	(0.8)	0.3	(1.1)	(0.1)	0.7
(Preference Dividends)						
Net Income / Earnings for Ordinary Shareholders	**60.0**	**21.8**	**4.0**	**218.1**	**344.3**	**199.7**
(Ordinary Dividends)	(30.7)	(34.8)	(36.4)	(38.3)	(41.3)	(45.5)
Retained Profit for Year	**29.3**	**(13.0)**	**(32.4)**	**179.8**	**303.0**	**154.2**

PROTEK plc

Balance Sheet

	Historical Data					
Accounts date	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Currency / units	**£ mill**	**£ mill**	**£ mill**	**£ mill**	**£ mill**	**£ mill**
ASSETS						
Fixed Assets						
Intangible Fixed Assets	342.1	341.2	477.9	197.6	223.8	388.1
Property, Land & Buildings - net	83.8	66.4	44.7	23.0	18.1	12.3
Other Fixed Assets - net	123.2	120.7	113.6	50.3	39.5	38.3
Financial Fixed Assets (Long-term Investments)	97.1	113.1	235.1	208.1	243.7	189.7
Medium-term Trade-related Assets	177.6	184.3	24.0			
Total Fixed Assets	**823.8**	**825.7**	**895.3**	**479.0**	**525.1**	**628.4**
Current Assets						
Stocks, Inventories, Work in Progress	102.0	91.4	73.8	47.7	6.1	11.7
Debtors, Prepayments, Receivables etc.	1,541.6	1,723.5	1,884.2	806.3	529.4	676.0
Cash and Short-term Investments	364.8	299.5	351.9	375.4	734.1	764.6
Other Current Assets			0.8	116.1	22.1	9.6
Total Current Assets	**2,008.4**	**2,114.4**	**2,310.7**	**1,345.5**	**1,291.7**	**1,461.9**
Total Assets	**2,832.2**	**2,940.1**	**3,206.0**	**1,824.5**	**1,816.8**	**2,090.3**
LIABILITIES						
Current Liabilities (Creditors < 1 Year)						
Creditors, Accruals, Payables etc.	1,755.8	1,857.4	2,007.7	1,021.4	641.5	722.5
Short-term Debt	109.8	46.0	39.1	13.6	0.8	-
Corporation Tax Payable	22.7	29.9	56.1	19.3	59.6	81.9
Dividend Payable & Minorities	30.8	34.8				
Other Current Liabilities			3.3	71.4	10.7	21.2
Total Current Liabilities	**1,919.1**	**1,968.1**	**2,106.2**	**1,125.7**	**712.6**	**825.6**
Non-current Liabilities (Creditors > 1 Year)						
Medium & Long-term Debt	473.1	537.2	558.3	6.9	0.1	0.1
Medium-term Trade-related Liabilities	114.2	106.9	73.7			28.3
Deferred Tax, Pension & Other Long-term Provisions	57.3	59.8	144.9	197.1	210.7	247.7
Total Non-current Liabilities	**644.6**	**703.9**	**776.9**	**204.0**	**210.8**	**276.1**
Share Capital & Reserves						
Issued Share Capital	149.6	151.0	166.4	166.8	168.7	169.0
Share Premium Account / Paid-in Surplus / Tresury Sha	82.8	88.8	89.5	90.7	99.5	100.7
Revaluation Reserve	11.1	20.1	11.4	(2.4)		
Other Reserves	17.2	17.2			34.0	76.9
Retained Earnings / Profit and Loss	0.4	(12.3)	55.3	238.9	590.4	639.4
Total Capital and Reserves	**261.1**	**264.8**	**322.6**	**494.0**	**892.6**	**986.0**
Minority Interests	7.4	3.3	0.3	0.8	0.8	2.6
Total Shareholders' Funds	**268.5**	**268.1**	**322.9**	**494.8**	**893.4**	**988.6**
Balance Check	-	-	-	-	-	-
Accumulated depreciation	101.6	104.5	109.5	85.0	73.9	103.7

PROTEK plc

UK-Style Cash Flow Statement

Explanatory note

	Historical Data					
Accounts date	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Currency / units	**£ mill**	**£ mill**	**£ mill**	**£ mill**	**£ mill**	**£ mill**
(all this sheet to be entered)						
CASH FLOW FROM OPERATIONS						
Operating Profit	112.2	104.9	49.1	(6.6)	114.5	172.2
Tangible Asset Depreciation	47.8	39.8	38.4	35.1	21.7	19.2
Amortisation,Other Non-cash Items, Exceptionals	12.7	18.9	(23.9)	(77.1)	(27.3)	(29.7)
Gross Operating Cash Flow (EBITDA)	**172.7**	**163.6**	**63.6**	**(48.6)**	**108.9**	**161.7**
NET WORKING ASSETS						
Dec(Inc) in Stock / Inventories	(0.3)	10.0	21.9	12.7	7.4	(1.6)
Dec(Inc) in Debtors / Receivables	307.7	(206.2)	(30.5)	112.3	67.0	(118.5)
Inc(Dec) in Creditors / Payables	(382.2)	52.0	70.6	21.6	(36.7)	27.4
Dec(Inc) in Net Working Assets	**(74.8)**	**(144.2)**	**62.0**	**146.6**	**37.7**	**(92.7)**
Net Operating Cash Flow	**97.9**	**19.4**	**125.6**	**98.0**	**146.6**	**69.0**
INVESTMENT & FINANCING FLOWS						
Investment Income	4.3	0.2	14.5	1.3	(2.8)	0.6
Interest Received	24.1	29.1	12.6	12.7	20.6	32.0
(Interest Paid)	(37.0)	(46.6)	(28.2)	(24.9)	(3.7)	(7.5)
(Preference and Minority Dividends Paid)						
Cash Return From Investments & Servicing Finance	**(8.6)**	**(17.3)**	**(1.1)**	**(10.9)**	**14.1**	**25.1**
TAXATION						
Tax Paid	**(30.6)**	**(26.6)**	**3.9**	**9.5**	**(38.0)**	**(73.2)**
INVESTMENT CASH FLOWS						
(Purchase of Fixed Assets)	(69.6)	(51.4)	(55.4)	(38.2)	(18.4)	(20.7)
Sale of Fixed Assets	50.8	52.8	16.9	26.5	9.7	13.1
(Acquisitions & Purchase of Financial Assets)	(181.1)	(11.4)	(92.1)	(39.1)	(18.9)	(93.6)
Sale of Subsidiaries and Financial Assets			10.0	654.6	282.3	155.4
Net Investments	**(199.9)**	**(10.0)**	**(120.6)**	**603.8**	**254.7**	**54.2**
EQUITY DIVIDENDS PAID						
(Dividends Paid on Ordinary Shares)	**(28.9)**	**(30.8)**	**(34.5)**	**(37.5)**	**(39.8)**	**(43.7)**
MANAGEMENT OF LIQUID RESOURCES						
Net (Inc/)Dec in Short-term Deposits	(20.2)	32.8				
Cash Flow before Funding	**(190.3)**	**(32.5)**	**(26.7)**	**662.9**	**337.6**	**31.4**
FUNDING CASH FLOWS						
New Shares Issued	0.4	7.4	89.7	1.6	11.0	1.5
(Repurchase / Redemption of Shares)	(5.9)	(6.5)	(8.7)	2.2	(21.5)	(30.6)
(Costs of Issuing / Redeeming Equity)						
Increase in Debt	291.3	(1.7)	5.8			
(Decrease in Debt)				(549.9)	(4.3)	(0.1)
Increase/(Decrease) in Cash & Liquid Funds	95.5	(33.3)	60.1	116.8	322.8	2.2

Change in Cash		(65.3)	52.4	23.5	358.7	1.5
Change in Overdraft	95.5	32.0	7.7	93.3	(35.9)	0.7

PROTEK plc

Share Price Data

	Historical Data					
Accounts date	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Currency / units	**£ mill**	**£ mill**	**£ mill**	**£ mill**	**£ mill**	**£ mill**
Number of Shares & Eps						
Adjusted Earnings per Share (pence or equivalent)	26.20	14.70	18.10	14.90	104.70	44.40
Dividends Per Share (pence or equivalent)	10.47	11.80	11.26	11.75	12.56	13.94
Average number of common shares	293.300	295.000	323.300	325.900	328.700	326.300
Average number of preference shares						
Share Prices						
Common Share Price - Low (pounds or equivalent)	1.43	2.56	2.95	2.66	4.19	4.28
Common Share Price - High (pounds or equivalent)	2.80	3.35	3.83	4.45	8.50	9.61
Common Share Price - Average	2.12	2.95	3.39	3.55	6.34	6.95
Preference Share Price - Low (pounds or equivalent)						
Preference Share Price - High (pounds or equivalent)						
Preference Share Price - Average						
Risk rating						
Variability %	46	45	36	35	25	31
Beta (actual or estimate)	1.09	1.04	0.98	1.02	0.62	1.07
Market Capitalisation						
Market Capitalisation - Common Stock	621	871	1,095	1,158	2,085	2,266
Market Capitalisation - Preference Stock	-	-	-	-	-	-
Market Capitalisation - Total	621	871	1,095	1,158	2,085	2,266
Minorities	7	3	0	1	1	3
Net Debt	218	284	246	(355)	(733)	(765)
Enterprise value [EV]	**846**	**1,158**	**1,341**	**804**	**1,352**	**1,504**

Equity Analysis

Equity Ratios						
Eps Growth %		(43.9%)	23.1%	(17.7%)	602.7%	(57.6%)
Dividend Cover	2.50	1.25	1.61	1.27	8.33	3.18
Dividend Yield %	4.9%	4.0%	3.3%	3.3%	2.0%	2.0%
Total Return to Shareholders %		43.6%	18.0%	8.3%	80.5%	11.5%

PROTEK plc

Financial Profile

	Historical Data					
Accounts date	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Annual % Growth Rates						
Sales Growth		5.3%	(38.9%)	13.6%	(27.0%)	10.6%
Operating Profit Growth		(6.5%)	(53.2%)	(113.4%)	1834.8%	50.4%
Net Income / Earnings Growth (pre Goodwill)		(3.4%)	(42.3%)	(84.1%)	1427.9%	(2.4%)
Profitability and Cost Structure						
Gross Profit % Sales	12.9%	13.0%	8.5%	7.2%	10.6%	12.0%
Overheads % Sales	10.0%	10.3%	6.8%	7.4%	5.7%	5.4%
Operating Profit % Sales	2.5%	2.3%	1.7%	(0.2%)	4.9%	6.6%
Personnel Costs % Sales	36.2%	33.0%	29.2%	27.6%	33.5%	37.6%
Depreciation % Sales	1.1%	0.9%	1.4%	1.1%	0.9%	0.7%
R&D Costs% Sales						
EBIT % Capital Employed (pre-exceptionals)	29.1%	27.1%	10.6%	2.3%	72.2%	76.8%
Pre-tax Target Rate of Return (market values)	12.4%	13.6%	13.2%	17.5%	16.4%	19.4%
EBIT % Market Enterprise Value	16.7%	12.9%	4.5%	0.4%	8.6%	11.4%
Asset Utilisation / Capital Intensity						
Sales / Total Assets	1.56	1.58	0.89	1.77	1.30	1.25
Stocks % Sales	2.3%	2.0%	2.6%	1.5%	0.3%	0.4%
Debtors % Sales	38.9%	41.0%	67.1%	25.0%	22.5%	25.9%
Creditors % Sales	42.3%	42.2%	73.2%	31.6%	27.2%	28.8%
Net Working Assets % Sales	(1.1%)	0.7%	(3.5%)	(5.2%)	(4.5%)	(2.4%)
Tangible Fixed Assets % Sales	5%	4%	6%	2%	2%	2%
Depreciable Assets % Sales	3%	3%	4%	2%	2%	1%
Net Capex % Annual Depreciation	39%	(4%)	100%	33%	40%	40%
Average Age of Depreciable Assets (years)	2.13	2.63	2.85	2.42	3.41	5.40
Tax Ratios						
Effective Interest Rate [P&L] %	9.3%	10.3%	4.8%	5.3%	34.6%	1340.0%
Effective Tax Rate [P&L] %	36.5%	65.6%	(4.0%)	8.2%	19.9%	31.6%
Cash Tax Rate [Cash Flow] %	32.0%	40.5%	22.0%	8.7%	25.1%	23.9%

Equity Analysis Model
PROTEK plc

Capital Structure & Credit Status

	2003	**2004**	**2005**	**2006**	**2007**	**2008**
Gearing & Leverage						
Leverage: (Net Debt % Capital Employed)	45%	51%	43%	(254%)	(458%)	(341%)
Net Debt % Enterprise Value	26%	24%	18%	(44%)	(54%)	(51%)
Interest Cover Ratios						
Interest Cover: (EBITA / Net Interest Paid)	4.9	4.7	3.6	0.8		
Cash Flow before Interest / Cash Net Interest	1.9		4.6	4.9	(3.4)	
Debt Repayment Ability (Years)						
Net Debt / Retained Profit plus Amortisation	4.7	7.2	38.4	0.0	0.0	0.0
Net Debt / EBITDA	1.2	1.5	2.5	(9.3)	(5.3)	(4.0)

MCT Case Study Exam paper

You are required to answer ALL 8 questions.
(All questions relate to the Proteck Case Study).

QUESTION 1 **[Total 10 marks]**

In 2006 the company published its strategy to move from a construction and property-based group to a more focused provider of services to the energy industry.

Required:

Discuss the implications of the shift in strategy for what should now be the business objectives and key performance indicators, supporting the discussion with your analysis of the business now and using whatever "non-financial" models you think appropriate.

QUESTION 2 **[Total 10 marks]**

Required:

Compare the pattern of cash flows for the period 2003-5 with that for the period 2006-8, highlighting the most important features and relating them to the company's strategic change referred to in Question 1.

QUESTION 3 **[Total 10 marks]**

Required:

Given your earlier analysis of the company, the business and the sector what do you think would be the five most significant future finance/treasury issues facing the company? Justify your choice.

QUESTION 4 **[Total 10 marks]**

In 2006 the share price low was 266p (average 355p) and in 2008 the share price high was 961p (average 695p). This was despite a reduced level of sales.

Required:

a) Consider the changes in sales, assets, EBIT, EBITDA, earnings, EV and market capitalisation using valuation multiples to "explain" the doubling of the average share price between 2006 and 2008. Be sure to comment on the levels of the various valuation multiples in both years, the changes that they reveal and why some multiples are more stable than others.

(8 marks)

b) What do you conclude about the market response to company performance?

(2 marks)

QUESTION 5 **[Total 16 marks]**

In 2005 the company's advisors said that it had too much debt. At the end of 2008 they were saying that the company had too much cash.

Required:

(a) Review the financial and non-financial evidence for the 2005 and 2008 views of the advisors.

(8 marks)

(b) What might be the company's answer to the latter charge about having too much cash?

(2 marks)

(c) In light of your answer to (b) devise and justify a policy for managing this cash pile.

(6 marks)

QUESTION 6 **[Total 16 marks]**

Protek is exposed to transaction and translation currency risks.

Required:

(a) How does each type of risk arise in Protek?

(4 marks)

(b) How material is each type of risk for Protek? Quantify your answer where possible.

(6 marks)

(c) In outline, how should each type of risk be managed by Protek? Pay particular attention to ways of managing the risks internally, without recourse to financial derivatives.

(6 marks)

QUESTION 7 **[Total 15 marks]**

Required:

(a) List what you consider to be the five most significant business risks and the five most significant financial risks for Protek.

(6 marks)

(b) Plot these on an impact-probability matrix (risk map)

(4 marks)

*** pro-forma provided by invigilator ***

(c) Conventionally, plots in the top right hand corner of the map are transferred out because considered potentially too damaging, those in the bottom left hand corner accepted, and those in the remaining space managed.

Comment critically on whether this prescription for where you have plotted the risks which you have identified matches your own views about how these risks should be managed.

(5 marks)

QUESTION 8 **[Total 13 marks]**

Required:

(a) Determine and justify a treasury organisation profile for Protek in terms of Role, Authority, Attitude to Risk and Organisation structure. The pro-forma is provided so you can indicate on it* your preferred profile.

(4 marks)

Treasury Organisational profile

Role	advisory	agency	in-house bank
Authorities	decentralised	centralised	balanced
Response to risk	cost centre	cost-saving centre	profit centre
Organisation	elementary	intermediate	advanced

*** pro-forma provided by invigilator ***

Protek's capex and opex contracts typically run for several years. The terms of these contracts have significant implications for treasury/financial risk and, once agreed, may be difficult to alter. In this context:

Required:

(b) What do you consider to be the main factors which the Protek contract negotiators should keep in mind?

(4 marks)

(c) What control processes could you put in place to ensure that treasury/finance risks were not incorporated in a project unnecessarily or unwittingly?

(5 marks)

MCT Case Study Exam: Solutions

Question 1 Non-financial Analysis **(10 marks, 18 mins)**

From the case study, for information.

Business Objectives	Critical success factors (for KPIs)
- leading supplier/world leader (NP) - high-value services - operational excellence - reduce capital intensity - growth in energising markets - strategic alliances and acquisitions - balanced portfolio - geography, customers, end markets, services and project time scales - differentiation - capex → opex balance (shift) - strategic comparatives - improve competitive position - transferability of competencies internally - acquisitions in (E&E) fragmented industry	- deliver projects safely, on time, on budget - EBITDA margin targets 2010 and performance improvements 8% - 13% - better business processes - investment requirements of clients - partnering relationships - manage high fixed cost base (P&P) - staff - also smooth demand fluctuation - EE steady growth, low risk, good quality earnings - expertise in large, complex projects - specialisms, training, transferable skills - internal performance improvement * - safety record - high value added work (P&P)

I have identified seven major objectives, each with supporting KPIs and each cross-referenced to a non-financial analysis model (21 points in total).

Five out of seven with supporting arguments would result in 15 points so ⅔ mark for each good point.

Summary Answer

Business Objectives	KPIs	Analytical Model
1 Leading global player	8 Global market shares by major sectors and type of service	15 To capture any economies of scale or scope (market environments matrix) Porter's Five Forces - buyer power
2 Balanced portfolio by geography, sector, type of service	9 Monitor relevant "pie-charts" and target weaker areas	16 To offset PEST factors outside company's control Porter's Five Forces - supplier and buyer power
3 Growth in energising markets	10 Business growth targets in selected geographical sector and service markets	17 To ensure clients at (all) stages of product/market life cycle
4 Protect long-term revenues	11 Monitor strategic alliances strategic acquisitions make	18 Porter's Five Forces - buyer power, threat of new entrants, dynamics of competition Build scale in fragmented market
5 Deliver high value added services	12 Metrics on safety, on-time and on-budget delivery EBITDA margin targets (8% - 13%)	19 Market Environments Matrix - specialisation Specialisation vs. low cost strategy
6 Improve competitive position by service differentiation	13 Operational excellence Recruitment, training and development	20 Market Environments Matrix - specialisation Specialisation vs. low cost strategy
7 Reduce volatility in performance and transferability of competencies	14 Metrics on financial stability Monitor high overhead base Standardisation of processes Staff utilisation metrics	21 Important PEST factors outside company's control M.E. Matrix - increase economies of scale and scope

Question 2 Financial Analysis **(10 marks, 18 mins)**

[I have 23 points including the summary so ½ mark for each good point]

(Candidates may not necessarily set out a full table like this).

	2003 - 5	**2006 - 8**	**Diff.**
Operating profit	266	280	14
Other non cash & exceptional items	8	(134)	(142)
Investment income	19	(1)	(20)
Change in net working assets	(157)	92	249
Depreciation	126	76	(50)
Capex	(56)	(28)	28
Tax paid	(53)	(102)	(49)
Dividends paid	(94)	(121)	(27)
Interest (paid)/received	(46)	29	75
Internal cash flow	13	91	78
(Acquisitions)/disposals	(275)	941	1216
Share capital	76	(35)	(111)
Debt	160	(612)	(772)
Cash	26	(384)	(410)
Net acquisition & financing	(13)	(91)	(77)

The biggest single difference is the reversal of the acquisition [1] strategy. Earlier period - raising equity [2] plus debt [3] and using up cash balances to acquire - (275m). Later period - realising £941m from disposals [4] to pay down debt, redeem some share capital and build cash balances. [5]

Internal cash flow very much [6] in balance in early period (+13m) slightly more positive [7] in later (+ 91m).

Profit plus investment income [8] £285m in early, £279m in later, but investment income from associates etc has gone [9] with the disposals.

Big change is the negative £134m [10] for non-cash/exceptional items in later period, with disposal/rationalisation strategy. [11]

Working capital investment of 157m gets reversed to tune of 92m [12] with move out of capital businesses to revenue businesses. [13]

Similarly lower depreciation and capex in later period [14] , again with less capital intensive businesses. [15]

The effective tax [16] rate has risen dramatically but presumably will not stay at such a high level into the future. Non-allowable expenses? Exceptional items?

"Cash profit" was 266 + 8 + 19 - 53 = 240 Now 280 - 134 - 1 - 102 = 43 - much worse. [17]
The other big change is the switch from 46m interest paid to 29m interest [18] received. Dividends have continued to [19] rise, but with a much greater cash cover than previously.

Summary of cash flows from new strategy

As yet lower cash profits after tax. [20] (but now growing, not declining as [21] before)
Cash realised from working capital and reduced expenditure on capex [22]
Disposals have funded de-gearing and lower interest payments. [23]

Question 3 **(10 marks : 18 mins)**

- Currency
  - Unusually for a company involved in contracts, there is no tender-to-contract risk since Protek is not involved in "lump sum" contracts.
  - Unlike a manufacturing company, Protek has little or no intra-group trade or trading imports/exports of substance, so the transaction risk is limited largely to the acquisition and payment for re-imbursables.
  - However there is translation risk with significant asset investment in overseas subsidiaries, but no corresponding debt.
- Credit
  - Protek has £0.75bn cash so there is substantial so there is financial institution counterparty risk and the current climate has highlighted the fragility of banks' balance sheets.
  - Trade debtors are also substantial and these include sovereigns.
- Cash Investment
  - Apart from counterparty risk, cash investment raises the issue of adequate returns, with current very low levels of interest rates.
- Capital Structure
  - Again relating to cash and the possible need for additional funds to finance future acquisitions, there needs to be a long term view about the optimum level of debt, and about investment criteria and dividend levels.
- Acquisition Evaluation
  - The company has successfully repositioned and radically changed the nature of its business. Further,

possibly large, acquisitions are a distinct possibility. With aggressive EBITDA margin targets Protek cannot afford to get a major acquisition wrong.

These are five obvious issues, with some cross-over to Question 7. There are other possibilities:

- Governance/control
- Carve-out of divested businesses/integration of new acquisitions
- Dividend policy
- Day-to-day liquidity management
- Industry consolidation

Question 4 **[10 marks : 18 mins]**

Question 4a Share price and valuation **(8 marks : 15 mins)**

[I have 25 very detailed points so ½ mark for each good point]

For information;		**2006**	**2007**	**2008**	**2006 - 2008 Change**
Average share price		3.55	6.34	6.95	96%
Market capitalisation		1158	2085	2266	96%
EV		804	1352	1504	87%
Sales		3229	2356	2606	(19%)
Total Assets		1825	1817	2090	15%
Assets less cash		1449.1	1082.7	1325.7	
EBIT		(104.6)	133.2	281.2	-
Exceptional items		(107.8)	17.5	109.0	-
EBIT before exceps		3.2	115.7	172.2	4381%
Depreciation & amortisation		(38.1)	(21.7)	(19.2)	-
EBITDA before exceps		38.3	137.8	191.4	400%
Earnings before exceps & extraords		6.8	103.8	101.4	1391%
eps (p)	average 54.7	14.9	104.7	44.4	198%
P/E	average 15.2	23.9	6.1	15.6	(35%)
EV/Sales		0.25	0.57	0.58	132%
EV/Total Assets		0.44	0.74	0.72	64%
EV/Assets - Cash		0.55	1.25	1.13	105%
EV/EBIT (before exceps)		251	11.7	8.7	(97%)
EV/EBITDA (before exceps)		21.0	9.8	7.9	(62%)

The key value driver was the increase in margins [1]; Gross Margin up from 7.2% to 12.0% and Operating Margin up from (0.2%) to 6.6% [2] , as unprofitable businesses were disposed of and the others turned around [3] . Total assets rose by 15% [4] , sales fell by 19% [5] , while EBITDA rose by 400% [6] .

It is essential to strip out the exceptional [7] items for analysis of EBIT and EBITDA. In addition strip out extraordinary [8] items as well for analysis of earnings.

Market cap. has increased by much the same [9] amount as average share price because number of shares [10] has not changed much. Net cash has increased [11] rather more than market cap. (115%), EV is only up by 87% [12].

P/E ratio is [13] volatile and has fallen because eps is also volatile [14], but increasing - the market valuations are both forward looking and based on a “smoothing” of actual earnings. [15]

In other words the company was never as bad as the eps suggested in 2006 (so a higher P/E), or as good as eps suggested in 2007 [16] (so a lower P/E). The 2008 P/E of 15.6 is probably “back to normal,” the 3-year average P/E being 15.2 [17].

EV/EBIT and EV/EBITDA, both before exceptionals, exhibit the same [18] reducing trend but with 2006 very high, 2007 high and 2008 probably about right. [19] EV/EBITDA of 7.9 is probably back to a more normal par value. Dividing EV by this 7.9 gives an estimate of the potential EBITDA being estimated each year; 102, 171, 190 [20] . NB Actual EBITDA in 2003 and 2004 was 190m.

EV/Sales and EV/Total Assets are obviously [21] more stable and steadily increasing, [22] indicating the improvement in the fundamentals [23] of financial performances and the strategic shift to less capital - intensive better margin businesses, although 2006 still looks [24] exceptional. EV/Total Assets less cash is up even more, 105%. The biggest “gain” has been in getting rid of unprofitable sales [25] .

Question 4b Share price and valuation (2 marks : 3 mins)

[I have 6 points so ½ mark per good point]

Not an easy question to answer [1] given the volatility [2] in many of the figures. And improved company performance has clearly pushed up the EV. Actually best to compare 2008 with [3] 2003 and 2004, ie before the restructuring, when EV/EBIT was 6.9 [4] (now 8.74) and EV/EBITDA was 5.3 [5] (now 7.9). So given the (much better) delivered performance and the consequent higher value the market put an extra 30% to 50% [6] of value on the company via higher multiples (confidence in the strategy the management and the future?)

Question 5 Debt, Cash & Liquidity Management (16 marks : 29 mins)

5a) (8 marks : 15 mins)

[I have 24 points so ½ mark for each good point]

At 2005 balance sheet leverage was 43% [1] and had been stable - (acceptable [2])
Debt % EV had fallen to 18% (low) [3]
EBITA Interest Cover had fallen to 3.6, [4] but on a declining trend [5].

EBITDA leverage had similarly deteriorated from 1.2 to 2.5, [6] a worrying trend but arguably still not at crisis level. [7] Stripping out exceptionals the trend in EBITDA (2003 and 2006) is 190, 189, 99, [8] 38 (assuming the market is able to anticipate what is coming.

Net debt/retained profit is the most negative indicator [9] having slipped from 4.7 years to [10] 38.4 years. Again, stripping out exceptionals and extraordinaries and adding back D+A the trend is 94, 79, 45, 4.

The previous mix of businesses had exhibited an average beta but a higher than average volatility, [12] which is the most relevant to the lender.

The average interest rate in 2003 and 2004 looks [12] high (10%), indicating higher average [13] debt during the year than at year end.

But sales levels, gross and [14] operating margins were reducing [15] and asset utilisation was falling, [16] so real concern about future prospects?

At 2008 company had net cash of £765 [17] with no debt at all at year end. Cash represents a third [18] of market capitalisation - but saving 32.1 interest received (approx. 4.2% [19] ignoring seasonality or 2.8% after tax). In contrast the remaining equity returns 18.7% [20] EBIT. With the cost of equity (CAPM) at about [21] 10% holding so much cash is destructive of shareholder [22] value (even in the current, very difficult climate). Cash policy looks very conservative, hence the advisors' "too much cash."

With cash at 51% of EV and equity 151% of EV WACC = (1.51 x 10%) - (0.51 x 2.8) = 13.6% [23]

This compared with 2005 return on capital employed of 10.6% [24]

5b) (2 marks : 3 mins)

[I have 8 points so ⅓ mark for each good point]

Seasonality [1] - Interest paid is £6.7m, so average debt est. £100m so maybe £200m at peak, despite [2] £765m year-end cash - fluctuating working capital (and capex requirements)?

But company always had 300/350 in cash - seems excessive even when [3] company had more capital intensive businesses. Treasure [4] chest for acquisition to consolidate the new strategy and grow the new mix of businesses [5] ? (941m realised from disposals in last three years and 612m used to pay down debt). But when company had 350m they made acquisitions using 100% debt finance [6]

• This is a risky, unpredictable sector so better to err on the side of caution [7]

• [8] Financial markets are in crisis so it is wise to hang on to cash.

5c) Policy **(6 marks : 11 mins)**

Response to 5(b) in part shapes the answer to 5(c)

Cash may be held for precautionary purposes or for future acquisitions as discussed in 5(b). If for whatever reasons substantial sums continue to be held in cash then the basic policy prescription would be the usual mantra of:

- Security
- Liquidity
- Yield

However, because the sums are potentially so big additional policy dimensions emerge:

- Centralise cash management if not already done
- Need for diversification across a range of institutions, given the breadth of the financial banking crisis
- Use of CDs to supplement ratings for evaluation
- Have fall-back counterparties if some existing ones downgrade
- Desirability of maturity tranches to enhance yield without frustrating the liquidity objectives.

In addition, if planned users for cash are not realised (acquisitions) or evaporate (general level of financial uncertainty reduces) then there needs to be a plan to make more efficient use of cash in the interests of shareholders.

Question 6 Currency Risks **[16 marks : 29 mins]**

(a) How risks arise **(4 marks : 7 mins)**

TRANSACTION RISK

- By the nature of the business as it has been transformed in recent years and as a matter of policy Protek does not assume tender-to-contract risk

- Neither does it have the usual high levels of import/export trading transactions which many multi-nationals experience.

- The transaction risks for Protek arise mainly in connection with:

  - Reimbursables: currency mix of spend is specified in the initial tender and exchange rate changes are covered by a currency variation clause. However if Protek decides to change the source to a different currency this is not covered. The business may not be always conscious of this fact.

  - Extended contract: most operating contracts are for three years but they are sometimes extended. The fx component agreement needs also to be extended and again this may not be on the business radar.

  - Incentives: these payments, if made, have an fx element 'though this is not as big an issue as the preceding two above.

TRANSLATION RISK

- This arises from having net assets in foreign currency. This gives rise to movements in balance sheet values from one accounting period to the next. If these affect ratios such as gearing or net worth which may underpin loan documentation then there may be negative results (at present Protek has no debt).

- Protek is also exposed to translation risk on earnings generated in non-sterling currencies.

(b) Materiality (6 marks : 11 mins)

TRANSACTION

- In theory most of this will be hedged structurally via the opex contracts.

  In practice some may not be because of changing circumstances.

  At end 2008 Protek had £214m of nominal forward fx contracts in place, giving some indication of the potential downside if these were not in place.

TRANSACTION

B/S translation risk comprises foreign currency net assets, adjusted for cash.

P/L translation risk comprises non-sterling revenues comprising £1.6bn, mainly USD/CAD, out of total revenues of £2.6bn.

(c) Policy
(6 marks : 11 mins)

TRANSACTION

Transaction risk in this business arises largely out of the nature of opex contracts rather than cross border trading.

So it is possible to negotiate with customers during the contract agreement stage currency variation clauses to hedge Protek's exposure as long as the exposures which actually occur have been specified in the contract.

The management of the risk therefore centres on whether the business complies with the reimbursables plan as contracted and on whether, if a contract is extended, the fx implications are taken into account.

Any residual transaction risk would be fully hedged as soon as the cash flows giving rise to such risks become known or highly probable.

TRANSLATION

Companies subject to balance sheet translation risk who wish to hedge it would first seek to do so by internal means ie by looking for an appropriate level of debt in the currency of the asset exposure to achieve the hedge required (protect gearing [zero currently] or protect net worth or some mix).

Protek has no debt currently (2008) so to achieve a hedge it is necessary to use cross-currency interest rate swaps.

For profit and loss translation risk many large international companies chose not to hedge this risk unless it looks like materially impacting on the perceived performance of the business. This is at least in part due to the fact that hedging the P/L would frustrate the intentions of equity investors who wish to assume this risk for portfolio diversification reasons.

Protek monitors this risk but does not currently (2008) hedge it.

Question 7 Impact-Probability matrix (Risk Map) [15 marks : 27mins]

(a) Five Key Business Risks, Financial Risks (6 marks : 11 mins)

Plenty to choose from:

BUSINESS

External - economic/political/recession/oil price
- environmental legislation
- demand, forward orders

Internal - execution of contracts
- safety
- acquisition quality

FINANCE

External - fx eg USD/CAD weakness
- interest rates

Internal - credit risk on debtors
- counterparty risk on deposit banks
- capital structure/funding/liquidity
- acquisitions mis-priced

(b) Plot risks on matrix pro-forma
(4 marks : 7 mins)

Evaluation based on judgement about plotting of each risk as characterised by individual students. Second level judgement based on dispersion of plottings on each map.

(c) "Theory versus reality" (5 marks : 9mins)

This part of the question asks for students to judge whether the theoretical prescription associated with the location of each of the individuals' plottings (transfer out, manage, accept) coincides with how the individual believes the particular risk should be treated.

Half of students did not express a view directly, and the other half on balance seemed to agree that theory and practice were at least in part congruent; the quality of discussion was usually better for those students who did have a view, whether in agreement or not.

Question 8 Organisation and Control **[13 marks : 23 mins]**

(a) Organisation Profile **(4 marks : 7 mins)**

Student responses are summarised on the pro-forma below:

Treasury Organisation Profile

Role	advisory 8%	agency 75%	in-house bank 17%
Authorities	decentralised	centralised 100%	balanced
Response to risk	cost centre 25%	cost-saving centre 71%	profit centre 4%
Organisation	elementary	intermediate 88%	advanced 12%

Protek has transformed itself from “lump sum” contractor into “support services”. Consequently it has low fixed assets, little debt currently, low fx transaction risk and in short few of the more usual treasury pressures to which say, a global manufacturer might be exposed.

Hence, the aggregate student response which favours Agency, Centralised, Cost-saving Centre and Intermediate is probably the most appropriate profile.

One would expect a strong presumption in favour of centralisation, with few technical obstacles standing in the way. The numbers are large, eg cash of £0.75bn, so cost-saving centre seems appropriate. And given the likely level of complexity, “intermediate” for organisation structure looks about right.

(b) Main factors for Protek contract negotiators (4 marks : 7 mins)

- Matching fx revenues and costs, awareness of potential exposures
- Breakage costs on contracts, extension of contracts
- Uplifts for inflation
- Pricing consistently across the globe
- Bonds/guarantees of any sort
- Maintaining close communications with the businesses and with treasury so risks are recognised and addressed

(c) Control process to minimise treasury-related project risks(5 marks : 9 mins)

- Board-approved policy on assumption of contract financial risks
- Proforma in project application showing how typical financial risks have been managed
- Finance/treasury to be on communications loop at negotiation, bid and contract stages
- Finance/treasury involved if contract to be amended
- Internal audit of policy/process adherence
- Training in treasury risks
- “Learning from failures”.

MCT Case Study Exam: Examiner's Report

All Questions relate to the Protek plc Case Study.

Question 1 **(10 marks, 18 mins)**

Question content: what should the objectives and key performance indicators be for this specialist service provider, supported by analysis using appropriate "non-financial" models?

This was generally well done with an average mark of 61% and 8 passes out of 12 candidates. Most of these passes were very good, showing thorough understanding of the company and its business.

The biggest weakness was that candidates wrote down their pre-prepared non-financial analysis without relating it to the actual question posed. The most popular "dump" was a SWOT analysis. Some candidates did not mention "objectives" or "KPIs" at all. Even more candidates did not make use of the various analytical models, as requested in the question, 'though some did cover the content of those models without any specific references to them.

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

Question content: Compare the pattern of cash flows for the period before and after the company's big strategic change and relate the cash flow changes to the strategic change
re-structuring.

This question again was generally well done with an average of 59% and 8 passes out of 12.

Candidates had first to add up the first three years' cash flows line by line (ball-park totals would be fine) then they could get the last three years by subtraction from the 6-year summary given in the case study. Some candidates chose to ignore the condensed cash flow summary (that is a standard for ACT case studies and exams) or were not familiar with it.

This made for extra work and led candidates to lump capex and acquisitions/disposals together as total “investments”, which obscured some important issues. Similarly by lumping depreciation, amortisation and all other non-cash adjustments together.

The weaker students tended to miss the less obvious points eg the importance of the non-cash adjustments (other than depreciation) and the high tax payments in the latter period.

<u>Question 3</u> **(10 marks, 18 mins)**

Given responses to Questions 1, 2 about the business and its performance, students were asked to identify the most significant future finance/treasury issues.

This is an evergreen question and responses captured a wide range of issues with a clustering around the more likely ones eg capital structure, acquisitions, currency, credit risk and investment of surplus cash.

However the justifications presented for students choice of issue were in some cases surprisingly superficial given the predictability of the question.

Pass rate was just under 50%.

<u>Question 4</u> **(10 marks, 18 mins)**

Question content: Use valuation multiples to “explain” the doubling of the share price over three years, commenting on the level and volatility of the various multiples.

This two-part question was poorly answered, with an average mark of 34% and only 2 passes out of 14.

The biggest single weakness was that candidates failed to spot or chose to ignore, even if mentioned, the big exceptional and extraordinary items throughout the period, which are typical of a company in the process of re-structuring.

		2006	2007	2008
eg	operating profit	(6.6)	114.5	172.2
	exceptionals	(107.8)	17.5	109.0

EBIT	(104.6)	133.2	281.2
extraordinaries	319.1	222.9	(10.7)
earnings for ordinaries	(38.3)	(41.3)	(45.5)

Two candidates did, in fact, add back extraordinaries to EBITDA even though they had not been deducted!

In trying to assess EV and equity valuation in a company that is re-structuring ignoring these exceptional and extraordinary items was fatal - it usually led them to the opposite conclusions from the correct ones. Valuation is essentially based on forward-looking and “normalised” profits and cash flows.

Following from this the more obvious points about multiples eg that profit multiples are high in exceptionally bad years and low in exceptionally good years, were lost on most candidates.

More subtle points were missed by everyone eg that with dramatically improved EBITDA or eps the share price and EV will also improve dramatically eg by just staying on the same multiple. But if the multiple itself goes up as a result of the company’s sustained
performance, and the market’s confidence in management and the strategy, that adds even more value or vice versa.

Some candidates didn’t calculate any multiples at all, even though all the underlying data were provided in the case, even market capitalisation and EV, so they just waffled about broad generalities.

One candidate did point out that the market capitalisation had increased because the share price had increased!

Question 5 **(16 marks, 29 mins)**

Question content: This was a three-part question; a) review the evidence behind advisors' comment that the company had too much debt three years ago and too much cash now, b) why might the company be holding all that cash, c) devise a cash management policy.

Question 5b (4 marks) was straight-forward and was well answered with an average mark of 39% but 8 passes out of 12 - the "fail" candidates obviously did really badly.

Question 5a saw an average mark of 39% and only 2 passes out of 14. A great number of candidates set out the numbers and ratios for debt, cash, leverage, interest cover, repayment ability etc, which were all given in the case study, and did not comment on them hardly at all. There was no comment on trends or appropriateness of levels of cover, no relating to the sector or the business cycle etc.

Some candidates focused exclusively on the impact of high gearing versus high cash on the WACC and its implications for shareholder value. This was relevant but not the only issue around. I think some were delighted to have found a question where they could go to town on all the detailed WACC calculations - but to the exclusion of all else.

A common weakness (but not for all candidates) was to accept that the credit ratios in 2005 didn't look too bad but failing to spot the seriously deteriorating trend. The analysts would, of course, on the back of the 2005 actuals have best information available about the likely outcome of 2006, which turned out to be really bad.

Overall comments on Questions 1, 2, 4, 5a and 5b

Disappointingly shallow understanding and thinking, as revealed in the analysis. Some candidates seem very naïve financially - do they read the pink press?

The pre-reading and analysis of the case study, together with the expectation of a classic "non-financial" and a classic "financial" question, I feel is having adverse effects. On the one hand they tend to offer relatively easy marks for corporate analysis, and this compensates for any weakness in treasury, risk management, funding and corporate finance, perhaps too much.

On the other hand candidates tend to answer the question to suit their pre-prepared answer rather than the question set. The examiners' model which I have adapted consistently, is to accept that they have done the analysis beforehand or had it provided for them in the case study, and to ask questions that require them to think about and apply what they have learned to an issue with a particular slant to it, that is prompted by the particulars of the company itself. In that sense questions 1 and 2 are not standard questions.

Question 5c

This part required a straightforward policy statement about surplus liquidity management policy covering security, liquidity and yield.

However, because of the large sums, some comments on diversification of depositories and maturity tranching were to be expected.

Some students also took a longer view, speculating on what should be done with surplus cash if acquisitions did not materialise or if precautionary balances became less necessary.

Pass rate on this part of Question 5 was 67%. [Overall Question 5 pass rate = 33%].

Question 6 **(16 marks : 29 mins)**

This question required students to explain how fx transaction and translation risks arise in Protek, to assess materiality and to suggest how such risks might be managed.

The transaction risk element of this question revealed that a majority of students did not appear to have understood the significance of the shift from "lump sum" contracts to "capex" and "opex" service provision. In some cases currency revenue within a country was identified as the source of transaction risk.

A few students omitted the translation element entirely in their response.

The pass rate for this question was just under 50%.

Question 7 **(15 marks : 27 mins)**

This question required students to list the five most significant business risks and the five most significant finance/treasury risks and to plot them on a pro-forma probability-impact matrix (risk map).

This question builds on earlier ones, eg Question 1, Question 3, in asking students to create an entity-wide view of Protek showing the relativity of the major risks facing the company.

The concept underpinning the matrix is that risks plotted top-right (high probability, high impact) should be hedged out, risks plotted bottom left (low impact, low probability) should be accepted and risks plotted in between should be managed.

Students are asked to discuss whether the risk management treatment implied by how they plotted individual risks coincides with how they think those risks should be managed.

Again, this is a frequently asked question, testing student's ability to develop a holistic understanding of the business. There was a 100% pass rate on this question.

Question 8 **(13 marks : 23 mins)**

Part (a) of this question was another evergreen, asking students to map onto a pro-forma and justify an organisational profile for Protek in terms of Role, Authority, Response to Risk and Structure. Not surprisingly, the pass rate on this part was 75%.

The second part of the question asked students to flag the finance/treasury factors which Protek contract negotiators should keep in mind to avoid costly mistakes and omissions.

This question provoked some good individual responses, including references to bonds/guarantees, possibly prompted by the substance of General Exam Question 4.

The last part asked students to propose control processes for ensuring that factors highlighted in answers to the previous part were, in fact, kept in mind. Again, despite coming at the end of the paper, several students scored good marks here.

The overall pass rate was 60%.

Summary - Question 3, Question 5c, Question 6, Question 7, Question 8

Given that students had sight of the case a week in advance of the exam and that most of these questions were predictable/evergreens, the low pass rate was surprising.

As with the General Exam, students fared better where the responses required were narrative based rather than analytic. Even so, the quality of response in many instances failed to demonstrate the level of insight to be expected of a successful MCT candidate.