ACT LEADING TREASURY PROFESSIONALS

The Association of Corporate Treasurers

Examination Paper, Solutions and Examiners Report

MCT ADVANCED DIPLOMA CASE STUDY

Based on TIC Global plc

October 2014

QUESTION 1

Required:

Identify the main strategic drivers behind the company's acquisition strategy, bearing in mind the company's business environment, peer group strategies and shareholders' interests.

(13 marks)

QUESTION 2

Required:

Summarise the most important characteristics of the last five years' cash flows and suggest the main cash-flow management priorities for the company based on your analysis.

(9 marks)

QUESTION 3

It is a basic principle of corporate treasury management that the nature of the business and its strategic direction dictate the agenda for the treasury function. More specifically, treasury strategy and functions must at all times be consistent with and supportive of the overall business strategy.

Required:

a) **Describe how you see the *business* develop over the coming five - ten years, eg in terms of growth, geographic focus, product – market focus, business organisation structure. Justify your views and quantify the growth.**

(4 marks)

b) **Given how you see the business develop, explain where the *treasury/finance function* needs to focus its attention over the medium term. Identify at least four areas and justify your choice.**

(8 marks)

(Total 12 marks)

QUESTION 4

As at year-end 2013, the company has tangible net worth of £151m negative, but its equity market capitalisation is around £5 billion and its borrowing exceeds £700m.

Required:

a) **Explain why the company's equity is valued at around £5 billion, given that the tangible net worth is negative. Support your answer with appropriate quantified metrics.**

(5 marks)

b) **Evaluate and explain the impact of the negative tangible asset value on the company's credit status. Support your answer with appropriate quantified metrics.**

(5 marks)

(Total 10 marks)

QUESTION 5

You have historical data on TIC Global's share prices and dividends per share, also data on the FTSE 100 Index and on the share prices of TIC Global's two largest competitors, Euco and Swico. You also have data on selected UK Gilt rates and associated equity risk premia.

<u>TIC Global Share Prices and Dividends</u>

	TIC Global Share Price (£)	**TIC Global Dividend (p)**	FTSE 100 Index	Euco Share Price (EUR)	Swico Share Price (CHF)
June 2011	**20.46**	**18.8**	5,946	56.90	1540
November 2011	**19.24**	**10.7**	5,505	56.30	1534
June 2012	**26.72**	**23.0**	5,571	71.88	1961
November 2012	**28.19**	**13.0**	5,867	84.65	2031
June 2013	**32.15**	**28.0**	6,216	89.24	2099
November 2013	**33.32**	**15.0**	6,651	85.00	2045
June 2014	**25.64**	**31.0**	6.744	77.00	1989

N.B. Euco pays a 2% annual dividend on average, while Swico traditionally pays no dividends. Assume that the FTSE 100 companies yield an average 3% in dividends.

UK Gilt Yields

	5-year	10-year	30-year
June 2005	4.32	4.39	4.38
June 2006	4.65	4.55	4.20
June 2007	5.52	5.23	4.63
June 2008	4.83	4.92	4.55
June 2009	2.53	3.73	4.64
June 2010	2.28	3.58	4.28
June 2011	1.96	3.29	4.12
June 2012	0.72	1.75	3.05
June 2013	0.85	1.90	3.19
June 2014	1.87	2.57	3.37
5-yr,10-yr and 30-yr Equity Risk Premium	4.19	2.61	2.03

Required:

a) Calculate the total period return and the average annual compound return, for an investor who bought 100,000 shares in June 2011 (ex-dividend) and sold them in June 2014 (cum dividend). Assume that all dividends are re-invested in TIC Global shares. In your calculations round your figures to the nearest whole number of shares.

(6 marks)

b) Calculate shareholders' required return on TIC Global shares, given their risk rating, justifying your choice of risk-free rate and equity risk premium.

(3 marks)

c) Critically compare the average total annual return on TIC Global shares with your calculated required return and with the equivalent total returns achieved on the FTSE Index and on the shares of TIC's two peer companies?

(6 marks)

d) Evaluate and summarise the company's dividend policy, commenting on its relative attractiveness to different categories of investors.

(5 marks)

(Total 20 marks)

QUESTION 6

TIC Global is experiencing increasing pressure from its growing cohort of global customers to price in a single currency, eg USD, EUR, CNY, irrespective of service delivery location.

For example, a major customer of TIC Global's Industry and Assurance Division has requested centralised invoicing for the services provided globally. The customer, a global oil major headquartered in the US and generating annual revenues of £60m for TIC Global, requests that all invoices be issued in USD from a central billing entity rather than from individual TIC Global subsidiaries. TIC Global provides services to the customer in 25+ countries including developed markets such as North America (40%) and Europe (25%), as well as emerging countries in Africa, Central Asia and South East Asia (35%).

The Industry and Assurance Division employs mainly specialist professionally qualified staff on a contract basis and in emerging markets these are usually expatriates paid in USD. Contract staff are paid fortnightly against time sheets for work done. Validated time sheet data needs to be collected and incorporated in customer invoices issued by the TIC Global central billing entity in order for these invoices to be compliant with the customer's approval requirements.

Required:

a) **Identify the treasury/finance issues which this customer request could raise.**

(4 marks)

b) **Explain how you would propose to manage these issues.**

(6 marks)

(Total 10 marks)

QUESTION 7

At end 2013 the bulk of TIC Global's funding comprised a USD 600m Revolving Credit Facility and USD 795m of Private Placements.

Required:

a) **Quantify the overall funding required to support the development of the business, including refinancing, during the next five years, given your response to Question 3a. State your assumptions.**

(5 marks)

b) **Construct the funding policy guidelines you would wish to see in place to support the future development of the business, eg in terms of sources, instruments, maturity profile, headroom, TIC Global's creditworthiness as a borrower/issuer. Quantify where possible and record your assumptions.**

(8 marks)

c) **Estimate the materiality of interest risk for TIC Global. Construct and quantify where possible the guidelines you would propose for managing interest rate risk.**

(3 marks)

(Total 16 marks)

Please turn over for Question 8

QUESTION 8

Required:

a) **Create a profile for the current TIC Global treasury by putting an 'x' in the cell in the top left corner of the appropriate box on the Treasury Organisation Matrix. By putting an 'x' in the cell in the bottom right corner of the appropriate box, create a second profile for the treasury you would wish to see in place if your expectations about the future development of the business and of the treasury/finance functions as expressed in your responses to Questions 3, 7 were realised. Justify the shift – or absence of shift – which you propose for each of the four dimensions of the profile.**

(4 marks)

b) **Identify and explain the problems you would expect to encounter when implementing your proposals for developing the treasury function. Explain how you might attempt to mitigate these.**

(6 marks)

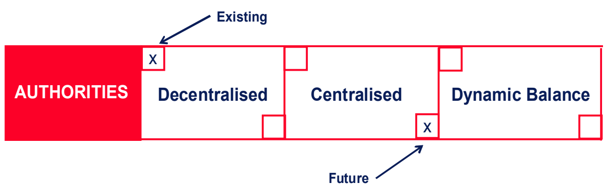
(Total 10 marks)

This pro-forma will be available as a hand out to candidates

Treasury Organisation Profile

ROLE	Advisory	Agency	In-House Bank
AUTHORITIES	Decentralised	Centralised	Dynamic Balance
RESPONSE TO RISK	Cost Centre	Cost-Saving Centre	Profit Centre
ORGANISATION	Elementary	Intermediate	Advanced

Example: If you think treasury is currently decentralised, but should move to centralised in the future, mark the grid as shown.



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MCT ADVANCED DIPLOMA
CASE STUDY
BACKGROUND INFORMATION

Based on TIC Global plc

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1.0 INTRODUCTION

1.1 Group Overview

TIC Global provides testing, inspection and certification services to industries worldwide. Demand is driven in part by regulation as well as by competitive pressures to maintain quality standards and brand reputation.

Summary Financials	2012 GBPm	2013 GBPm	2014 Interim GBPm
Turnover	2,054	2,184	1,024
EBIT	283	310	131
PAT	188	217	90
Gross debt	717	734	761
Net debt	551	618	661
Shareholders' funds	655	757	761
Average market cap.	4,869	5,715	5,282

This is a fragmented market, with many small companies dealing direct with local customers. However the bigger corporates which require these services on a global basis increasingly look for global providers. Currently there are three main global players of which TIC Global is one.

TIC Global's revenues derive from three geographical regions:

The Americas 32%
EMEA 33%
Asia Pacific 35%

The business is organised in five business streams:

Industry and Assurance
Commodities
Consumer Goods
Commercial and Electrical
Chemicals and Pharmaceuticals

Some services require fixed assets locally to carry out physical tests. Others are more dependent on certification by professional experts who would be the main cost element. Sales usually involve short to medium term contracts, many determined locally, so the business tends to be decentralised. However, customers which use TIC Global because of its worldwide coverage, increasingly wish to be invoiced from a central billing entity in a single currency, usually USD.

Growth is both organic and by acquisition.

2.0 BUSINESS PROFILE & ANALYSIS

2.1 The Business

Overview

TIC Global at a glance

Your global quality partner

Who we are

TIC Global provides quality and safety services to businesses across the globe. We help our customers improve
their products, assets and processes to make them more successful in their chosen markets.

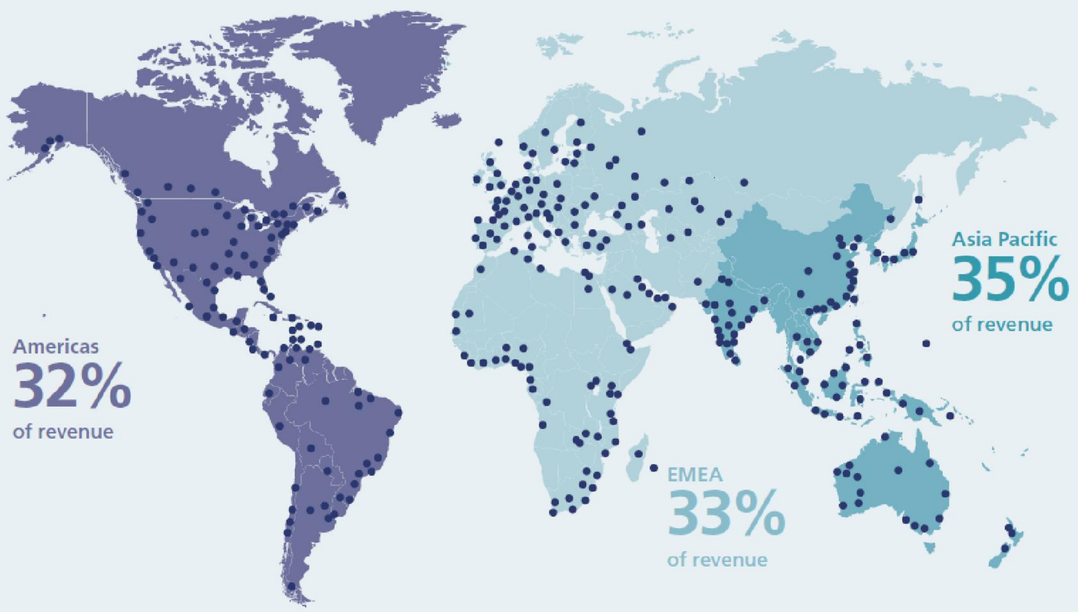
What we do

Testing | Outsourcing | Certification | Training

Inspection | Advisory | Auditing | Quality Assurance

Where we operate

We have a network of more than 1,000 laboratories and offices and over 36,000 people in more than 100 countries.



How we are organised

Industry & Assurance

We provide a diverse range of services to clients across a broad range of industries including energy, food and agriculture.

32% of revenue

Key business lines

- Industry Services
- Business Assurance
- Food & Agriculture
- Exploration & Production

Commodities

We provide inspection and analytical assessment services to petroleum and mining clients on a global basis.

27% of revenue

Key business lines

- Cargo
- Analytical Assessment
- Government & Trade Services
- Minerals

Consumer Goods

We provide services to the textiles, toys, footwear, hardlines and retail industries.

17% of revenue

Key business lines

- Softlines
- Toys & Hardlines
- Product Intelligence
- Auditing

Commercial & Electrical

Our accredited facilities provide a comprehensive scope of safety, performance and quality testing and certification services.

16% of revenue

Key business lines

- Electrical
- Transportation Technologies
- Building Products
- Wireless

Chemicals & Pharmaceuticals

Our advanced lab testing and expert consultancy services help support R&D and production activities across multiple industries.

8% of revenue

Key business lines

- Chemicals & Pharma
- Health & Regulatory

Some of our customers

- Abu Dhabi Gas Development Company Limited (Al Hosn Gas)
- ADM Rice
- Air Products
- Apache
- Auchan
- BASF
- Bechtel
- BHP Billiton
- BP
- Certified Automotive Parts Association
- Chevron
- China Petroleum Engineering & Construction Corp (CPECC)
- Cisco
- Disney
- Ericsson
- ExxonMobil
- Glencore Grain B.V., Rotterdam
- Haier
- IKEA
- Infineum
- Kohl's
- Levi Strauss & Co.
- LG
- Magellan Aerospace, North American Operations
- Marks & Spencer
- McDonald's Corporation
- Morgan Stanley
- Nestlé
- Odebrecht
- Omnicotton
- Panasonic
- Pasternak
- Petrobras
- Plexus
- Samsung
- Sasol
- Shell
- Total
- Trafigura
- Valero
- Vitol

Industry & Assurance

Powering safer futures

Industry & Assurance division

Key business lines include Industry Services, Exploration & Production, Business Assurance and Food & Agriculture. These service a wide range of industries including oil, gas, nuclear, power, renewable energy, construction, food, chemical and agriculture.

Our services

- Asset integrity management
- Technical inspection
- Auditing
- Certification
- Consulting
- Training
- Staffing

Market drivers

Developing market energy demand, combined with maintenance expenditure to extend the lives of in-service assets, will continue to drive demand for services.

Financial highlights

Financial Highlights 2013	£m	Change at actual rates	Change at constant rates
Revenue	709.3	7%	7%
Adjusted operating profit	82.2	6%	7%
Adjusted operating margin	11.6%	0bps	0bps

Revenue – at actual rates (£m)

2013	709.3
2012	665.6

Employees

2013	8,972
2012	7,329

Promoting food safety
As South Africa's population continues to grow, TIC Global, working alongside local communities and organisations, is helping to promote effective food safety systems including the launch of dedicated food safety training programmes and workshops.

Aiding development of Copenhagen's infrastructure TIC Global signed a contract to design, manufacture, install and commission a corrosion and stray current corrosion monitoring system for the Danish capital's metro extension project, Cityringen. This will assist with the effective running of the system, which is one of the largest underground rail construction projects in Europe.

Our performance in 2013

Total revenue was £709.3m, up 7% at both actual and constant exchange rates. Excluding acquisitions revenue growth was 4%. Total adjusted operating profit was £82.2m, up 6%. Excluding acquisitions adjusted operating profit was up 3% at constant exchange rates. The total adjusted operating margin remained constant at 11.6% at actual exchange rates. The organic adjusted operating margin at constant exchange rates decreased 20 basis points.

Revenue growth was driven by demand for Technical Inspection services in China, Brazil and the Middle East. Over the last few years, growth in global energy has driven increased new capital and production based spending on oil and gas projects, particularly by the integrated oil companies, supporting very high levels of Industry Services growth. During 2013, this high level of spending growth was moderated by discretionary spending mainly in the USA on energy sector plant and equipment and training contracts being deferred or ending, holding back the pace of growth for TIC Global services. This softness will continue to affect TIC Global in 2014, alongside the intentional reduction in some large low value contracts that account for approximately £30m of divisional revenue. Over the medium-term, growth in energy demand and related infrastructure especially from new sources and destinations will continue to drive demand for TIC Global services.
Business Assurance grew well in the period particularly in North America with sector programmes in aerospace and automotive and new global accounts increasing revenue across the world.

Revenue from Food Services grew strongly in the UK and Europe as food contamination scares prompted increased demand for analytical testing and supply chain auditing. The Agriculture business grew well overall with particularly strong growth in Latin America and Canada partially offset by trade restrictions in some markets. Increased scrutiny over food and agricultural quality, variety and provenance will continue to support testing, inspection and supplier auditing for this business.

In 2013 TIC Global acquired GQT for £44.9m, a USA based company that specialises in non-destructive testing services to the onshore and offshore oil and gas industry.

Three bolt-on acquisitions for a total consideration of £2.0m were also completed in this division in the year, two providing services to the food industry and one offering design services to manufacturing and industrial plants.

Commodities

Supporting global trade

Commodities division

Key business lines include Cargo, Analytical Assessment, Government & Trade Services and Minerals. These service a wide range of industries including petroleum, mining, minerals and biofuels.

Our services

- Analytical assessment
- Inspection
- Certification
- Consulting

Market drivers

As global trade continues to develop, we expect underlying demand for commodities to increase, with a resulting demand for testing and inspection services.

Financial highlights

Financial Highlights 2013	£m	Change at actual rates	Change at constant rates
Revenue	586.6	2%	3%
Adjusted operating profit	70.0	(9)%	(9)%
Adjusted operating margin	11.9%	(160)bps	(160)bps

Revenue – at actual rates (£m)

2013	586.6
2012	572.3

Employees

2013	10,239
2012	10,352

11 years of dedicated lab testing and support

TIC Global provides outsourced laboratory services to the Sasol Wax Durban Supply Centre, and has operated there for over 11 years. To support Sasol, we analyse a wide range of petroleum-based waxes, synthetic waxes, paraffin waxes, petroleum jellies and other wax related products used in various industries.

TIC Global is responsible for all in-process and final quality control and quality assurance checks. No product, either solid or liquid, is released without Intertek's certification, and our dedication to customer service exemplifies the true spirit of delivering a valued, quality service.

Our performance in 2013

Total revenue was £586.6m, up 2% at actual exchange rates, and 3% at constant exchange rates. Excluding acquisitions revenue growth was 2%. Total adjusted operating profit was £70.0m, down 9%. Excluding acquisitions adjusted operating profit was down 11% at constant exchange rates. The total adjusted operating margin decreased 160 basis points to 11.9% at actual exchange rates. The organic adjusted operating margin at constant exchange rates decreased 180 basis points.

Revenue growth was driven by oil cargo inspections globally, with the USA leading this growth with the expansion of shale oil extraction and rail transportation activities. This growth was offset by minerals experiencing a pronounced downturn in 2013, where lower commodity prices, especially gold, continue to deter exploration activity, particularly in Australia, Brazil and Africa. The reduced demand also put increased pressure on prices within laboratory based activities. The impact of the sharp fall in exploration was lessened by increased analysis of iron ore production and shipments led by demand from China.

Product Conformity Programmes in Government & Trade Services had flat revenue against the prior year, with the growth in the first half reversed in the second half following changes in a key customer programme that declined in value. This programme change will impact revenue by approximately £5m during 2014 alongside a continuing weak minerals market. Further investment in the North American shale regions will provide growth in this division, alongside increasing production, shipment and use for oil and petrochemicals in emerging and developed markets.

The margin decline in the year was first half weighted, mainly due to the minerals revenue decline, which moderated with cost reduction measures during the second half.

Consumer Goods

Satisfying the demand for quality

Consumer Goods division

Key business lines include Softlines, Toys & Hardlines, Product Intelligence and Auditing. These service a wide range of industries including textiles, toys, footwear, hardlines and retail.

Our services

- Testing
- Inspection
- Certification
- Auditing
- Advisory services
- Quality assurance
- Hazardous substance testing

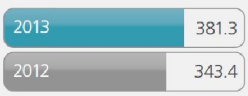
Market drivers

The expectations of consumers in developing markets will continue to drive the demand for higher quality products that are tested and certified by trusted companies such as TIC Global.

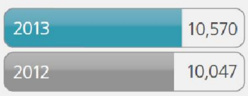
Financial highlights

Financial Highlights 2013	£m	Change at actual rates	Change at constant rates
Revenue	381.3	11%	9%
Adjusted operating profit	124.5	10%	8%
Adjusted operating margin	32.7%	(10)bps	(20)bps

Revenue – at actual rates (£m)



Employees



Reaching new standards in toy testing

In this constantly evolving regulatory and safety environment for toys, we work with our customers through the design and development process for new toys to ensure they are compliant with regulations such as Toy Safety Standard ASTM F963-11 and U.S. Consumer Product Safety Commission ('CPSC') Testing and Certification rule 16 CFR 1107. TIC Global also expanded capabilities to test to EN 71-3:2013 requirements under the new EU Toy Safety Directive prior to the July 2013 deadline. We use our comprehensive testing solutions and network of accredited third-party labs to ensure our customers meet all their regulatory requirements.

Our performance in 2013

Total revenue was £381.3m, up 11% at actual exchange rates and 9% at constant exchange rates. Excluding acquisitions and disposals revenue growth was 8% at constant exchange rates. Total adjusted operating profit was £124.5m, up 10%. Excluding acquisitions and disposals adjusted operating profit was up 7% at constant exchange rates. The total adjusted operating margin decreased 10 basis points to 32.7% at actual exchange rates. The organic adjusted operating margin at constant exchange rates decreased 50 basis points.

Demand for textiles and footwear testing continued to drive growth in the division, with China, India and Turkey all recording strong performance as a result of product testing for both exports and the domestic market. Sustainability issues are becoming increasingly important to global brands, and there has been an increase in factory audits for compliance with social and ethical standards. The increased safety requirements under the EU Toy Safety Directive came into force in July and provided additional revenue for the toys testing business as global manufacturers selling into the European market requested support to demonstrate compliance.

TIC Global's extensive global network continues to provide opportunities to support global retailers as sourcing patterns shift to lower cost locations. Continued investment in the network and in expanding service offerings will provide ongoing growth opportunities.

The Group is investing in the development of additional value-added information services to our global clients. The investment in the Tradegood platform, where we help retail buyers identify verified manufacturers on our web based platform, continued during the year. Progress was made in building the customer base. Revenue growth in this new service was slower than original expectations and therefore the investment in growing the business adversely affected the divisional operating margin during the year. We remain committed to developing the platform and combining with new information based value-added services. Overall, Tradegood reported a loss of £5m during the year.

During 2013, TIC Global acquired ELI for £6.6m, a toy and consumer products testing laboratory in Brazil, expanding the range of services provided to the South American market.

Commercial & Electrical

Supporting the technical revolution

Commercial & Electrical division

Key business lines include Electrical, Wireless, Transportation Technologies and Building Products. These service a wide range of industries including home appliances, consumer electronics, lighting, medical, building, industrial, heating, ventilation and air conditioning, information communication and technology, renewable energy and automotive.

Our services

- Safety testing
- Performance testing
- Certification
- Consulting

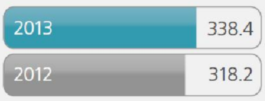
Market drivers

Continued technological innovation, demand for improved environmental credentials and tougher legislation will continue to drive demand for our services.

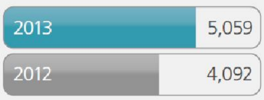
Financial highlights

Financial Highlights 2013	£m	Change at actual rates	Change at constant rates
Revenue	338.4	6%	5%
Adjusted operating profit	49.3	(3)%	(5)%
Adjusted operating margin	14.6%	(130)bps	(140)bps

Revenue – at actual rates (£m)



Employees



At the centre of innovation

The launch of our first wireless technology testing lab in Taiwan supports testing in one of the wireless industry's most profitable marketplaces. Taiwan is at the centre of wireless innovation, and our new testing facilities enable us to provide in-country device testing and ultimately help clients release new technology into the global marketplace quickly and efficiently.

Our performance in 2013

Total revenue was £338.4m, up 6% at actual exchange rates and 5% at constant exchange rates. Revenue growth of 5% was wholly organic. Total adjusted operating profit was £49.3m, down 3%. Adjusted operating profit was down 5% at constant exchange rates. The total adjusted operating margin decreased 130 basis points to 14.6% at actual exchange rates. The adjusted operating margin at constant exchange rates decreased 140 basis points.

Commercial & Electrical performed well in the year with some strong growth areas partially offset by weakness in renewables markets generally, and in our Scandinavian operations. The growth in the year was wholly organic. There was strong performance in both developed markets, such as the USA and Canada, as well as in emerging markets in China and Taiwan across most business lines from building products, transportation technologies to electrical and telecoms. Areas such as '4G' testing grew strongly both in China as it moves up the value chain and in Taiwan following investments in new laboratory capacity. Growth in these areas was offset by weakness in renewables as governments reduced their support for the industry, in particular in our European operations, and weaker performance from medical devices following new regulations in the prior year.

Operating profit was impacted by the increased investment in new services resulting in increased depreciation, as new businesses continue to ramp up activity.

In December, TIC Global closed the acquisition of ANT for £57.6m, one of the largest building products testing and certification companies in North America. This opportunity allows further expansion into building products locations outside the USA.

Chemicals & Pharmaceuticals

At the cutting edge of research

Chemicals & Pharmaceuticals division

Key business lines include Chemicals & Pharma and Health & Regulatory. These service a wide range of industries including aerospace, automotive, electronics, packaging, pharmaceutical, medical devices, biotechnology, personal care products and cosmetics.

Our services

- Testing
- Inspection
- Auditing
- Certification
- Consulting and regulatory support

Market drivers

Cutting edge research continues to push boundaries in manufacturing and product development, where we provide support to manufacturers.

Financial highlights

Financial Highlights 2013	£m	Change at actual rates	Change at constant rates
Revenue	168.8	9%	7%
Adjusted operating profit	16.6	(3)%	(5)%
Adjusted operating margin	9.8%	(120)bps	(120)bps

Revenue – at actual rates (£m)

2013	168.8
2012	154.8

Employees

2013	1,766
2012	1,516

Supporting next generation nanotechnology innovation

From novel food ingredients to drug delivery systems, nanotechnology is being viewed as the source of next generation chemical innovation. Intertek's chemical analysis, scientific and regulatory experts have helped clients to understand the chemical, physical and toxicological properties of their nanotech products, accelerating innovation and helping to ensure regulatory compliance and product safety.

Our performance in 2013

Total revenue was £168.8m, up 9% at actual exchange rates and 7% at constant exchange rates. Excluding acquisitions and disposals revenue growth was 2%. Total adjusted operating profit was £16.6m, down 3%. Excluding acquisitions and disposals adjusted operating profit was down 16% at constant exchange rates. The total adjusted operating margin decreased 120 basis points to 9.8% at actual exchange rates. The organic adjusted operating margin at constant exchange rates decreased 200 basis points.

Chemicals & Pharmaceuticals saw low organic revenue growth in the year. There was good growth in the automotive fuels and engines testing business in the USA, China and Germany and cosmetics testing in France. This was offset by difficult trading conditions in the rest of Europe as the volume of industrial chemicals and plastics quality assurance work from a number of key contracts declined due to customer restructuring and exit. This impacted the margin in the year. The division is undergoing restructuring including underperforming laboratory closures and disposals and although this also impacted the revenue growth, the lower cost base will benefit the margin going forward.

The long-term partnership with the Quality and Conformity Council of Abu Dhabi is progressing beyond advisory and consultancy and into operation of the laboratories in the Emirate. The revenue from this contract is expected to continue to increase as this partnership develops.

During 2013 TIC Global acquired MIT for £10.5m, which provides analytical and formulation services to the European pharmaceutical industry.

2.2 Our Strategy and Business Model

Our strategy reflects our global focus and local delivery model, as we concentrate our efforts on the industries, locations and services most demanded by our customers.

Our strategy reflects our global focus and local delivery model, as we concentrate our efforts on the industries, locations and services most demanded by our customers.

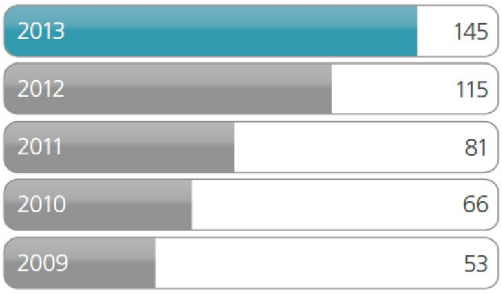
Our plan	How we will achieve our aims	Principal risk
Leading positions in key industries	We are organised into business lines to reflect the needs of our customers, and concentrate on industry sectors where we have the critical size to hold leading positions and provide our customers with world-class services.	• Harm to the Group's reputation
Customer orientated relationships	We aim to create long-term partnerships with our customers to help them improve their competitive advantage. By investing in relationships for the long-term, we can deepen our understanding of their businesses.	• Key staff reliance
Global network	We have a global network of offices and labs that can react quickly to changes in global, interregional and local trade. The network allows us to deepen our position in established and growing markets, and help our customers with the flow of goods across boundaries.	• Political risk
Investing in our people	Our people are our core assets and are chosen for their technical expertise, their values and their understanding of local markets and culture. We provide training for personal growth and to ensure we continue to deliver expert services to our customers.	• Key staff reliance
Targeted acquisitions	We will achieve our strategic priorities through both organic investment, but also through targeted acquisitions. We acquire companies which provide access to new services, markets, technologies or skills that expand our service offering.	• Cyclical risk
Process efficiency	Process efficiency allows us to streamline core operations and provide more time for adding value for our customers. As global standards converge we adopt best practices wherever we find them in a relentless pursuit of process improvement.	• IT systems risk

Acquisitions and investment

The Group's strategy is to invest both organically and by acquiring complementary businesses, enabling it to take advantage of the strong long-term structural growth drivers in the industry and continually offer the latest technologies and services in the locations demanded by clients. The chart below shows the extent of the Group's investment in 2013:

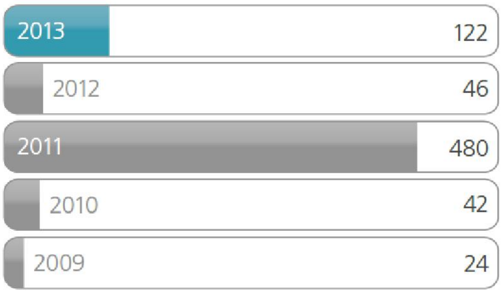
Organic capital investment (£m)

145



Acquisition purchase price (£m)

122



Acquisitions

The Group made seven acquisitions in the year, with a purchase price, including debt, of £122m, the larger ones being detailed below:

In March 2013, the Group acquired ELI for £6.6m, a toy and consumer products testing laboratory based in Brazil.

In July 2013, the Group acquired MIT for £10.5m, a UK based provider of high-quality cGMP analytical and formulation services to the pharmaceutical, biotech and healthcare industries.

In October 2013, the Group acquired GQT for £44.9m, a USA based NDT services company providing services to the onshore and offshore oil and gas industry.

In December 2013, the Group acquired ANT for £57.6m, a leading building products testing, inspection and certification agency in North America.

These acquisitions provide valuable additional service lines and new geographic locations for the Group, and will help drive profitable revenue growth. The two more significant acquisitions, GXT and ATI, are in the strategically important areas of non-destructive testing and building products testing, where the Group sees good growth opportunities.

2.3 Sector Risks (Source: Equity Analyst)

Key sector risks that could negatively impact future financial performance include:

- **Protectionism** - TIC Global generally acts as an intermediary in cross-border trade, particularly between developed and developing countries. If the current global trade imbalances and perceived risk of a "currency war" develops into full-blown protectionism the danger is a slow-down or reversal in levels of international trade, which would likely impact TIC Global.

- **Cyclicality** - While the sub-sector offers strong structural growth, it carries a degree of cyclical overlay. Commodity price volatility and trading volumes can affect demand for associated testing services. Consumer spending trends in Europe and North America can influence demand for consumer testing services.

- **FX** - TIC Global carries translation risk with c.80% of profits earned in US dollars or pegged currencies. In addition, rapid movements in FX rates can cause dislocations in global trade flows and leave TIC Global lab network temporarily mis-aligned.

- **Consolidation risk** - The sector remains fragmented despite prevalent network-based economies of scale. TIC Global pursues an active consolidation strategy which, along with synergy upside, brings mis-pricing and integration risk. With a number of larger or similarly sized peers also looking to consolidate the sector, TIC also carries take-out bid premium risk, particularly given its attractive consumer testing franchise.

- **Legislation** - Regulations are a key demand driver (e.g., CPSIA, ROHS, REACH, EU Toy Directive) but can also be disruptive to sales trends.

- **Litigation** - The industry has generally managed to avoid serious litigation over the past few years, but it remains a risk.

3.0 COMPETITIVE ENVIRONMENT

3.1 Sector Review

Please note Figures 1-7 have been omitted.

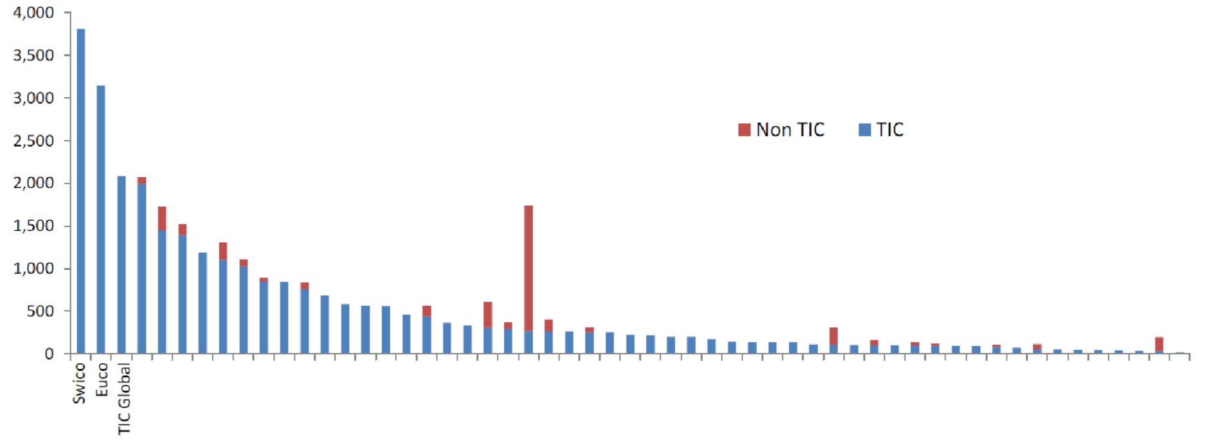
TIC industry

17 January 2014

A fragmented industry

The TIC industry is a highly diverse and fragmented industry. Figure 8 shows 2012 revenues for 55 of the largest testing companies (ex Maxxam post its acquisition by BVI in December 2013) that we are aware of. Beyond this list there are many more smaller TIC operators globally

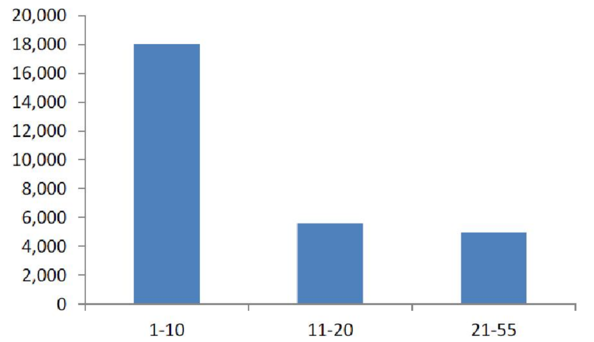
Figure 8: TIC – Industry participants and 2012* revenues
GBP in millions, unless otherwise stated



Source: Company data, Equity Analyst estimates.

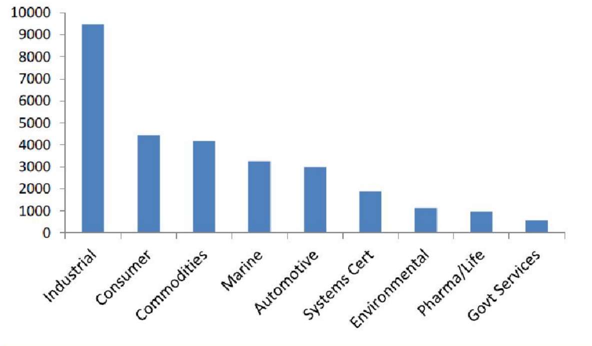
The 10 largest companies (by **2012** revenues) account for just over 60% of outsourced TIC revenues with c20% from the next 10 and the remainder from the long tail of smaller companies (Figure 9). Differences, and limitations, in reporting structures combined with the overlapping nature of operations between divisions restricts the precision of categorising end-market exposure of the industry. Nevertheless Figure 10 shows our attempt to do so and indicates that the three largest end markets are industrial, consumer and commodities.

Figure 9: Total revenues split by top 10, 10-20 and 21-53 largest companies (by revenues)
GBP in millions, unless otherwise stated



Source: Company data, Equity Analyst estimates

Figure 10: End-market exposure – revenue in GBP mn

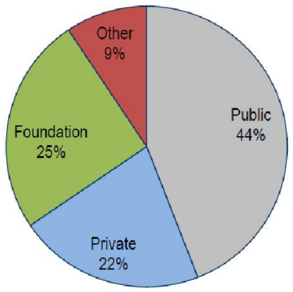


Source: Company data, Equity Analyst estimates

Ownership

Of the companies noted above 13 are publicly quoted and amount to 44% of 2012 revenues. The remainder are a mixture of privately-owned operations or foundations (or a mixture of the two). (Figure 11). The split in ownership of the top 10 companies (by revenues) is shown in Figure 12)

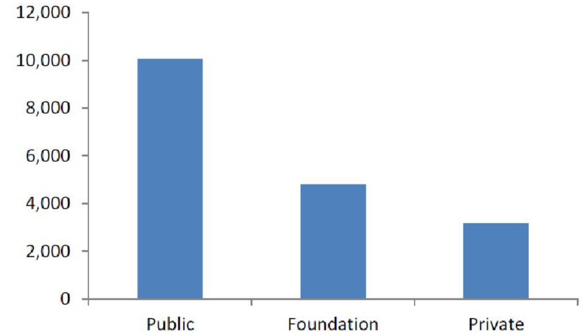
Figure 11: Ownership – split by % of total 2012 revenues



Source: Company data, Equity Analyst estimates

Figure 12: Revenues of top 10 companies (2012) – split by ownership

GBP in millions, unless otherwise stated

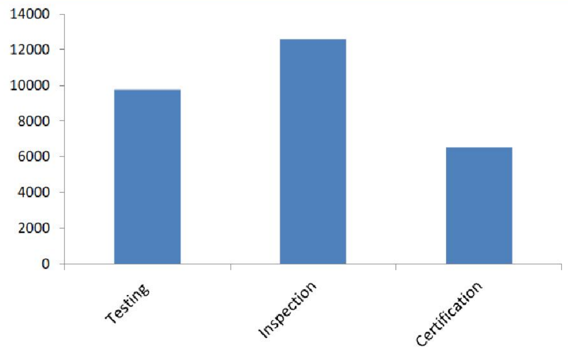


Source: Company data, Equity Analyst estimates

TIC revenue splits

As noted above, the lines between various disciplines and divisions can be somewhat blurred – is inspecting an oil refinery Oil and Gas or industrial? Is checking oil quality testing or inspection? Does agriculture sit within commodities or as a stand-alone division? Is certifying a ship as seaworthy inspection or certification? In Figure 13 we have split revenues from the 55 companies shown in Figure 8 into broad testing, inspection and certification divisions. We estimate that inspection is approximately 45% of the outsourced market, with testing around one third and certification the remainder. Within this analysis we have defined marine and statutory vehicle inspection primarily within the certification sector, although there are arguably significant elements of inspection within both models Figure 14 broadly splits out the revenues of the largest three operators into testing, inspection and certification segments. Swico and Euco are c30-40% testing with c45-c55% of revenues from inspection and 13-15% from certification (inc. marine and automotive). TIC Global is just under 70% testing with 30% inspection and a small certification operation.

Figure 13: TIC markets – split by revenues 2012 revenues



Source: Company data, Equity Analyst estimates

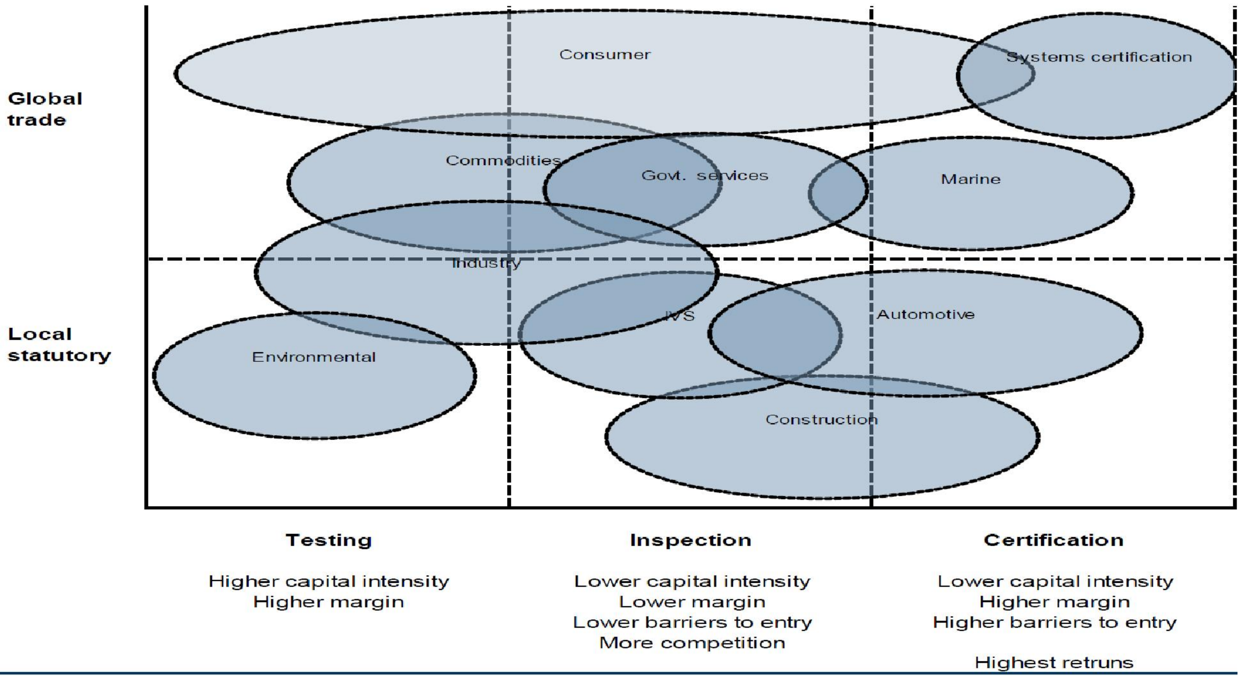
Figure 14: Big 3 – split by TIC exposure (2014E revenues)

Source: Equity Analyst estimates

TIC industry framework

In Figure 15 we show a framework for the TIC industry as we split the major reporting divisions into TIC segments (note the frequent overlap of categories) and show the extent to which these are local or global markets. We also note how the margins and capital intensity vary between these segments.

Figure 15: **TIC industry framework**



Source: Equity Analyst Research

Market size

We estimate that the current outsourced testing market size is approximately $50bn. This is slightly higher than the sum of the TIC revenues from the companies shown in Figure 8 reflecting that: 1) Figure 8 shows revenues to 2012 and 2) there are many smaller operators not included in that list. We estimate that the outsourced market accounts for approximately 25% of the total TIC market, implying a total market size of approximately $200bn.

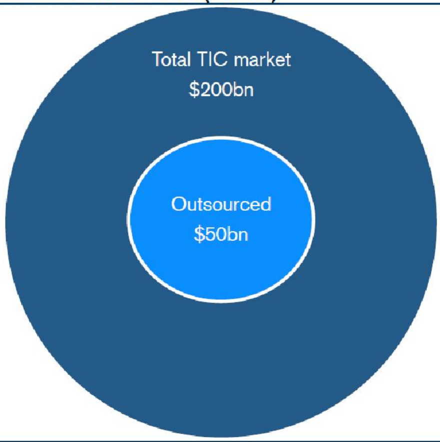
In addition to the current estimated market size of $200bn we believe there are a range of further opportunities and end markets that can be developed and which, over time, will augment the market opportunity (Figure 17). Among these are

1) Growth & Complexity of Standards – we expect the trend of growing legislation and industry standards to continue, which should expand existing market and develop new opportunities.
2) Emerging markets quality and safety – as emerging markets develop we expect increased demand for high levels of safety and quality across all facets of the economy providing additional opportunities across broad swathes of the industries' existing competencies
3) Increasingly complex supply chains – the globalisation of supply chains has been a driver of TIC markets for many years and we expect this trend to continue

providing further opportunities to test, inspect, certify products/services from across the supply chain

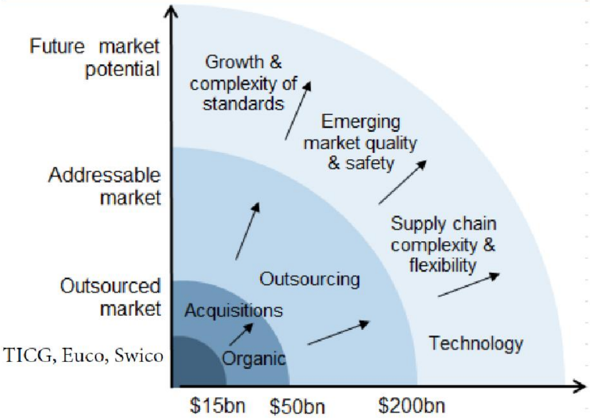
4) Technology – rapid technological development needs to be tested. Not only in isolation but in relation to other technologies creating new opportunities, some of which can grow exponentially from a small base

Figure 16: **TIC market size (2013E)**



Source: Equity Analyst estimates

Figure 17: **New opportunities**



Source: Equity Analyst estimates

3.2 Peer Group Summary

TIC Global plc is estimated to have the third largest share of the global TIC market, behind Swico and Euco whom it sees as its main competitors. Figure 8 above indicates 2013 revenues for Swico as GBP 3.8 billion, Euco GBP 3.1 billion and TIC Global as GBP 2.0 billion. Relative sales growth and profitability are given in the following table:

	Swico CHF	Euco EUR	TIC Global GBP
2009 Revenues	4,712	2,648	1,237
2013 Revenues	5,830	3,933	2,184
2013 Operating profit	912	590	310

TIC companies have shown average annual organic growth of 8% between 2001 and 2013, but future organic growth is forecast at around 4-5% in 2014, rising to 7% in 2016-2018.

TIC revenues are predominantly based on activity volume. The fortunes of global TICs are well correlated with momentum in global export volumes, since items crossing borders need to be tested or certified at one or two stages in the process. Essentially they check consumer goods, commercial and electronic goods, commodities, chemicals and government customs services. Some revenues are purely a function of testing/inspection volumes while others have a mix of volume and ad-valorem pricing. As to volume drivers, some revenues are regulation driven while some are commercial liability or brand driven.

The larger TICs have diversified businesses by both function and geography. The biggest revenue and profit drivers at the major TICs are consumer, commodity, commercial and customs/port businesses, which account for 50-70% of profits. Niche markets, such as pharmaceuticals, food, environmental or infrastructure services are harder to track and predict. The global distribution of revenues of the three largest TICs are as follows;

Revenue Distribution - Geography

	Swico	Euco	TIC Global
Europe, Africa and Middle East	46.2%	49.0%	32.5%
Americas	24.8%	24.0%	32.2%
Asia/Pacific	29.0%	27.0%	35.2%

The three companies use different sector classifications, with 10, 8 and 5 groupings respectively, so comprehensive direct comparisons are not possible. Three sectors used by all three peers are as follows, but not necessarily consistently defined, are as follows, with appropriate shares of turnover;

Revenue Distribution - Sectors

	Swico	Euco	TIC Global
Industrial	16.5%	23.9%	32.5%
Commodities	13.6%	16.9%	26.9%
Consumer	17.5%	12.8%	17.5%

As to other sectors, for example, Euco separately identifies Marine work at 7.5% of turnover, Government at 7.1% and Construction at 11.1%. Swico separately identifies Environmental work at 5.6%, agriculture at 6.5% and Life Services at 3.5%. TIC Global separately identifies Chemicals and Pharmaceuticals at 7.7%

TIC Global tend to be number 1 or number 2, occasionally number 3 in most markets, depending on the sector. The same more-or-less applies also to Euco and Swico.

Acquisitions have been a core part of the growth strategy of the major TIC companies for many years and that trend is expected to continue. Over the last four years approximate figures for acquisitions are as follows

Significant acquisitions	Swico	Euco	TIC Global
Total	67	24	26
Europe	21	3	13
North America	15	6	10
South America	8	5	3
South Africa	7	1	0
Asia	8	9	0
Australasia	8	0	0

The size distribution of these 117 acquisitions by the these three largest companies, measured in terms of GBP sales revenues, varies considerably, as follows;

Sales revenues	Percentage
< 1.0 million	12%
1-5 million	46%
5-10 million	8%
10-20 million	18%
20-50 million	12%
50-100 million	0%
> 100	4%

As an illustration of the expected value of continuing acquisitions one equity research house gives the following estimates of acquisition values versus organic growth values;

	Swico	Euco	TIC Global
Acquired/organic value	78%	21%	23%

4.0 FINANCE AND TREASURY

4.1 Borrowings and Financial Instruments

TIC Global is financed by bank debt and USD private placements. It is not rated.

Analysis of net debt

The components of net debt are outlined below:

	1 January 2013 £m	Cash flow £m	Exchange adjustments £m	31 December 2013 £m
Cash	166.5	(45.4)	(4.7)	**116.4**
Borrowings:				
Revolving credit facility US$600m 2016	(235.5)	41.7	2.1	(191.7)
Bilateral multi-currency facility 2016	(38.3)	0.4	0.6	(37.3)
Bilateral term loan facilities	–	(25.2)	1.0	(24.2)
Senior notes US$25m 2014	(15.5)	–	0.4	(15.1)
Senior notes US$100m 2015	(62.2)	–	1.5	(60.7)
Senior notes US$75m 2016	(46.7)	–	1.2	(45.5)
Senior notes US$100m 2017	(62.2)	–	1.5	(60.7)
Senior notes US$20m 2019	(12.4)	–	0.3	(12.1)
Senior notes US$150m 2020	(93.3)	–	2.3	(91.0)
Senior notes US$140m 2022	(87.1)	–	2.2	(84.9)
Senior notes US$40m 2023	–	(25.8)	1.5	(24.3)
Senior notes US$105m 2024	(65.4)	–	1.7	(63.7)
Senior notes US$40m 2025	–	(25.8)	1.5	(24.3)
Other*	1.4	(0.6)	0.1	0.9
Total borrowings	(717.2)	(35.3)	17.9	**(734.6)**
Total net debt	(550.7)	(80.7)	13.2	**(618.2)**

* Other borrowings of £0.9m (2012: £0.8m) and facility fees.

	1 January 2012 £m	Cash flow £m	Exchange adjustments £m	31 December 2012 £m
Cash	181.9	(10.3)	(5.1)	166.5
Borrowings:				
Revolving credit facility US$600m 2016	(304.4)	62.3	6.6	(235.5)
Bridge facility US$300m	(155.1)	151.5	3.6	–
Bilateral multi-currency facility 2016	(13.4)	(26.6)	1.7	(38.3)
Senior notes US$25m 2014	(16.1)	–	0.6	(15.5)
Senior notes US$100m 2015	(64.6)	–	2.4	(62.2)
Senior notes US$75m 2016	(48.5)	–	1.8	(46.7)
Senior notes US$100m 2017	(64.6)	–	2.4	(62.2)
Senior notes US$20m 2019	–	(12.9)	0.5	(12.4)
Senior notes US$150m 2020	(96.8)	–	3.5	(93.3)
Senior notes US$140m 2022	–	(90.5)	3.4	(87.1)
Senior notes US$105m 2024	–	(68.1)	2.7	(65.4)
Other*	0.9	0.5	–	1.4
Total borrowings	(762.6)	16.2	29.2	(717.2)
Total net debt	(580.7)	5.9	24.1	(550.7)

Borrowings

Borrowings are split into current and non-current as outlined below:

	Current 2013 £m	Current 2012 £m	Non-current 2013 £m	Non-current 2012 £m
Senior term loans and notes	**14.5**	–	**719.2**	716.4
Other borrowings	**0.9**	0.8	**–**	–
Total borrowings	**15.4**	0.8	**719.2**	716.4

Analysis of debt	2013 £m	2012 £m
Debt falling due:		
In one year or less	**15.4**	0.8
Between one and two years	**84.3**	15.0
Between two and five years	**334.8**	443.4
Over five years	**300.1**	258.0
Total borrowings	**734.6**	717.2

Description of borrowings

Total undrawn committed borrowing facilities as at 31 December 2013 were £175m (2012: £164m).

US$600m revolving credit facility

The Group's principal bank facility comprises a US$600m multi-currency revolving credit facility signed in February 2011 and available to 31 March 2016. Advances under the facility bear interest at a rate equal to LIBOR, or their local currency equivalent, plus a margin, depending on the Group's leverage. Drawings under this facility at 31 December 2013 were £191.7m (2012: £235.5m).

Bilateral multi-currency facility

In December 2010 the Group signed a multi-currency facility available to March 2016. The facility comprises a £30m multi-currency revolver facility and a €12m multi-currency term loan facility. Drawings under these facilities at 31 December 2013 were £37.3m (2012: £38.3m).

Bilateral term loan facility 1

On 21 December 2012 the Group signed a US$20m bilateral term loan available to March 2015. Advances under this facility bear interest at a rate equal to LIBOR plus a margin, depending on the Group's leverage. Drawings under this facility at 31 December 2013 were £12.1m (2012: £nil).

Bilateral term loan facility 2

On 21 December 2012 the Group signed a US$20m bilateral term loan available to December 2015. Advances under this facility bear interest at a rate equal to LIBOR plus a margin depending on the Group's leverage. Drawings under this facility at 31 December 2013 were £12.1m (2012: £nil).

Private placement bonds

In June 2008 the Group issued US$100m of senior notes. The notes are repayable on 26 June 2015 and pay a fixed annual interest rate of 5.54%.

In December 2008 the Group issued US$100m of senior notes. These notes were issued in two tranches with US$25m repayable on 21 January 2014 at a fixed annual interest rate of 7.5% and US$75m repayable on 10 June 2016 at a fixed annual interest rate of 8.0%.

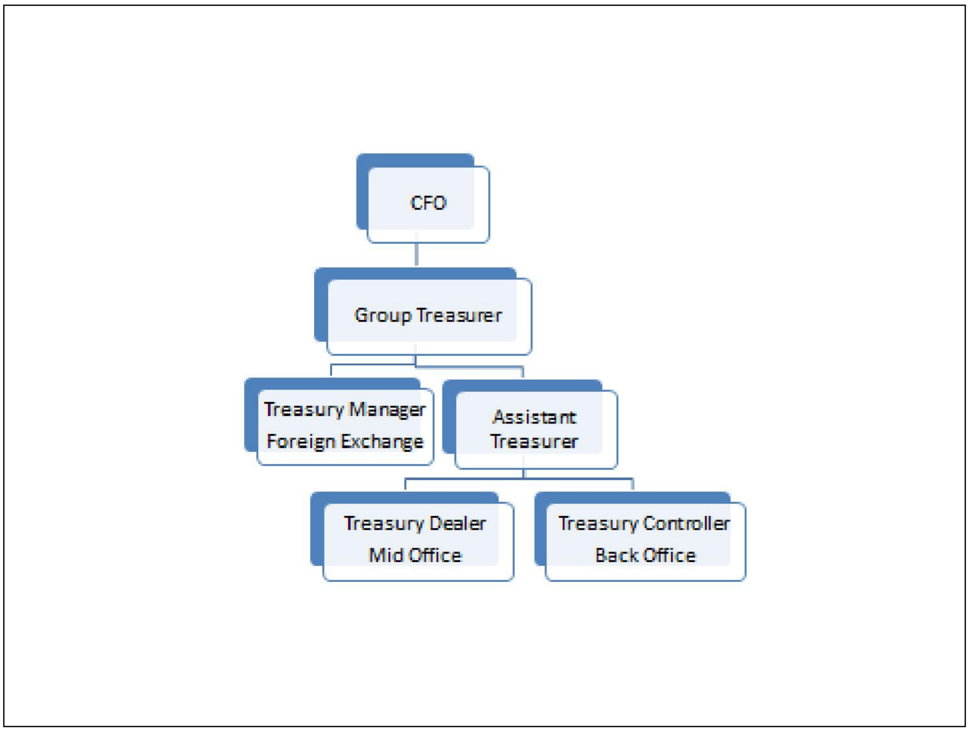
In December 2010 the Group issued US$250m of senior notes. These notes were issued in two tranches with US$100m repayable on 15 December 2017 at a fixed annual interest rate of 3.2% and US$150m repayable on 15 December 2020 at a fixed annual interest rate of 3.91%.

In October 2011 the Group issued US$265m of senior notes. These notes were issued in three tranches with US$20m repayable on 18 January 2019 at a fixed annual interest rate of 3.0%, US$140m repayable on 18 January 2022 at a fixed annual interest rate of 3.75% and US$105m repayable on 18 January 2024 at a fixed annual interest rate of 3.85%.

In February 2013 the Group issued a further US$80m of senior notes. These notes were issued in two tranches with US$40m repayable on 14 February 2023 at a fixed annual interest rate of 3.10% and US$40m repayable on 14 February 2025 at a fixed annual interest rate of 3.25%.

4.2 Treasury Structure

The Group Treasury is based in London and is a Group cost. The reporting structure is:



The back office is largely outsourced in the UK and the US.

TIC Group is organised with operations grouped by similar industry sectors and finance is structured regionally. Treasury policy needs to align with these management structures and provide support to both the regional finance teams and the divisional businesses.

There is no formal regional treasury structure but Group Treasury has identified individuals within the finance function who have some treasury experience and who can liaise with the centre.

5.0 FINANCIALS

Equity Analysis Model
TIC Global plc
Income Statement

			Historical Data				Interim
Month		*Accounts date*	2009	2010	2011	2012	2013	2014
Decemb		*Currency / units*	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill
		Audit / man / fcst	audited	audited	audited	audited	audited	unaudited
		Number of months	12	12	12	12	12	6
Sales Revenue			**1,237.3**	**1,374.2**	**1,749.4**	**2,054.3**	**2,184.4**	**1,024.3**
a	(Cost of Sales)		(1,050.6)	(1,167.7)	(1,515.4)	(1,771.0)	(1,874.4)	(893.1)
a	**Gross Profit**		**186.7**	**206.5**	**234.0**	**283.3**	**310.0**	**131.2**
a	Exceptionals etc. +/-		(9.5)	(5.3)	(14.1)	(11.0)	(8.8)	(10.8)
Other Expenditure Details (for information)								
b	(Personnel Costs)		(549.7)	(585.4)	(743.5)	(862.6)	(958.7)	
b	(Depreciation & Impairment of Tangible Assets)		(47.4)	(51.1)	(56.4)	(59.8)	(65.7)	(33.8)
b	(Amortisation & Impairment of Goodwill)		(12.8)	(12.9)	(25.3)	(32.5)	(22.5)	(10.3)
b	(Amortisation & Impairment of Intangibles)		(4.0)	(4.2)	(3.8)	(3.8)	(5.2)	(3.5)
b	Exceptionals etc. +/-							
Operating Profit			**186.7**	**206.5**	**234.0**	**283.3**	**310.0**	**131.2**
Investment Income Income								
	Income from Investments, Participations etc							
EBIT			**186.7**	**206.5**	**234.0**	**283.3**	**310.0**	**131.2**
Interest Received & Paid								
	Other Financial Income & Expenditure		(2.4)	(3.0)	(1.4)	(3.5)	(3.7)	
	Interest Received		1.0	0.9	2.5	2.7	1.5	2.8
	(Gross Interest Paid)		(16.1)	(14.5)	(22.1)	(25.9)	(26.0)	(14.2)
Profit before Tax			**169.2**	**189.9**	**213.0**	**256.6**	**281.8**	**119.8**
	(Tax charge)		(45.5)	(50.9)	(61.9)	(68.4)	(64.8)	(29.5)
Profit after Tax			**123.7**	**139.0**	**151.1**	**188.2**	**217.0**	**90.3**
	Extraordinaries, Discontinued Operations etc							
Profit / (Loss) for the Year			**123.7**	**139.0**	**151.1**	**188.2**	**217.0**	**90.3**
	Attributable to Non-controlling Interests		9.0	10.4	12.3	14.4	16.5	6.8
	Attributable to Owners of Company		**114.7**	**128.6**	**138.8**	**173.8**	**200.5**	**83.5**
	(Preference Dividends)							
	(Ordinary Dividends)		(35.8)	(45.0)	(54.1)	(66.1)	(74.2)	(25.8)
Retained Profit for Year			**78.9**	**83.6**	**84.7**	**107.7**	**126.3**	**57.7**
	Statement of Gains and Losses		(10.4)	40.8	(30.6)	(17.1)	(23.0)	(18.8)
Total Comprehensive Income			113.3	179.8	120.5	171.1	194.0	71.5

EBITA (before Exceptionals & all Amortisation)	**213.0**	**228.9**	**277.2**	**330.6**	**346.5**	**155.8**
EBITDA (before Exceps. Deprn, & all Amortisation)	**260.4**	**280.0**	**333.6**	**390.4**	**412.2**	**189.6**
Cash Earnings (Before Goodwill, Exceps.& Extraords)	**137.0**	**146.8**	**178.2**	**217.3**	**231.8**	**104.6**
Cash Retained Profit (Before Goodwill, Exceps & Extraords)	**101.2**	**101.8**	**124.1**	**151.2**	**157.6**	**78.8**

Equity Analysis Model

TIC Global plc

Balance Sheet

	Historical Data					
Accounts date	2009	2010	2011	2012	2013	2014
Currency / units	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill
Goodwill	257.8	301.5	637.0	668.5	736.8	743.9
Other Intangible Fixed Assets	46.9	44.1	169.5	154.5	170.5	170.7
Property, Land & Buildings & Capital Work	40.9	46.1	46.6	50.2	53.8	55.0
Plant, Equipment & Vehicles - net	180.0	197.0	218.4	251.9	283.3	283.8
Financial Investments, Tax & Pension Assets & Deriv.	22.8	26.4	28.3	29.0	29.7	33.4
Medium-term Trade-related Assets						
Total Fixed Assets	**548.4**	**615.1**	**1,099.8**	**1,154.1**	**1,274.1**	**1,286.8**
Stocks, Inventories, Work in Progress	7.6	9.9	12.3	12.3	12.2	13.3
Trade and Other Receivables	265.9	315.2	442.6	502.4	510.9	518.4
Other financial assets & investments						
Cash and Short-term Investments	134.2	217.0	181.9	166.5	116.4	100.5
Tax Assets, Derivatives, Assets for Sale & Other				-	16.5	16.6
Total Current Assets	**407.7**	**542.1**	**636.8**	**681.2**	**656.0**	**648.8**
Total Assets	**956.1**	**1,157.2**	**1,736.6**	**1,835.3**	**1,930.1**	**1,935.6**
Short-term Debt	8.2	93.6	38.7	0.8	15.4	82.2
Trade and Other Payables	186.9	220.3	295.5	324.3	304.6	278.4
Corporation Tax Payable	29.2	22.5	44.1	54.2	57.9	57.4
Provisions, Derivatives & Other Current Liabilities	33.3	24.5	17.1	26.8	22.0	20.8
Total Current Liabilities	**257.6**	**360.9**	**395.4**	**406.1**	**399.9**	**438.8**
Medium & Long-term Debt	327.4	293.1	723.9	716.4	719.2	679.1
Medium-term Trade Payables	3.6	7.3	9.0	6.2	4.7	4.7
Tax, Pension & Other Long-term Provisions	28.2	13.9	61.8	51.7	49.6	52.0
Total Non-current Liabilities	**359.2**	**314.3**	**794.7**	**774.3**	**773.5**	**735.8**
Issued Share Capital	1.6	1.6	1.6	1.6	1.6	1.6
Share Premium Account, Treasury Shares	253.5	256.3	256.7	257.4	257.8	257.8
Revaluation Reserve						
Other Reserves	25.9	51.5	27.9	16.6	(14.2)	(30.4)
Revenue Reserves	40.3	149.5	236.3	354.0	487.4	504.2
Total Capital and Reserves	**321.3**	**458.9**	**522.5**	**629.6**	**732.6**	**733.2**
Non-controlling Interests	18.0	23.1	24.0	25.3	24.1	27.8
Total Shareholders' Funds	**339.3**	**482.0**	**546.5**	**654.9**	**756.7**	**761.0**
Accumulated depreciation	234.8	289.2	336.5	377.0	410.7	428.0
Average Cost of Debt %	4.80%	4.01%	3.85%	3.50%	3.58%	3.84%

Equity Analysis Model

TIC Global plc

UK-Style Cash Flow Statement

	Historical Data					
Accounts date	2009	2010	2011	2012	2013	2014
Currency / units	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill
Number of months	12	12	12	12	12	6
CASH FLOW FROM OPERATING ACTIVITIES						
Operating Profit	186.7	206.5	234.0	283.3	310.0	131.2
Tangible Asset Depreciation	47.4	51.1	56.4	59.8	65.7	33.8
Dec(Inc) in Stock / Inventories	0.3	(1.3)	(2.1)	-	(0.1)	(1.5)
Dec(Inc) in Debtors / Receivables	8.9	(32.5)	(34.8)	(65.9)	(16.9)	(14.2)
Inc(Dec) in Creditors / Payables & Advance Payments	9.8	22.7	3.8	2.2	(15.0)	(24.1)
All other non-cash adjustments & Exceptionals	25.3	24.9	31.4	53.2	34.9	17.3
Cash Generated from Operations	**278.4**	**271.4**	**288.7**	**332.6**	**378.6**	**142.5**
Dividends Received from Associates						
(Tax Paid)	(59.6)	(61.7)	(53.4)	(72.6)	(80.9)	(30.8)
Net Cash from Operating Activities	**218.8**	**209.7**	**235.3**	**260.0**	**297.7**	**111.7**
CASH FLOW FROM INVESTING ACTIVITIES						
Income Received from Investments						
Interest Received	1.0	0.9	2.0	2.3	1.6	0.6
(Purchase of Tangible Fixed Assets)	(52.8)	(65.9)	(80.6)	(115.0)	(144.8)	(52.1)
Disposal of Tangible Fixed Assets	0.3	0.8	1.6	1.7	4.6	0.1
(Purchase of Subs, Intang., Financial & Forestry Assets)	(34.7)	(51.2)	(462.3)	(40.2)	(111.2)	(37.7)
Disposal of Subsidiaries, Intangibles & Financial Assets	6.6		(1.8)			
Net Cash from Investing Activities	**(79.6)**	**(115.4)**	**(541.1)**	**(151.2)**	**(249.8)**	**(89.1)**
CASH FLOW FROM FINANCING ACTIVITIES						
(Interest Paid)	(16.1)	(15.4)	(22.3)	(26.5)	(28.5)	(13.2)
New Shares Issued	3.6	2.8	0.4	0.7	0.4	
(Repurchase / Redemption of Shares)		(0.5)	(7.8)	(0.8)	(9.1)	(20.3)
(Costs of Issuing / Redeeming Equity)				(5.8)	(7.6)	
Total Increase in Debt	191.8	355.2	692.8	201.3	77.4	66.0
(Total Decrease in Debt)	(250.5)	(310.8)	(335.5)	(217.5)	(42.1)	(15.0)
(Dividends Paid on Ordinary Shares)	(34.7)	(42.5)	(47.2)	(57.9)	(69.4)	(49.9)
(Preference and Minority Dividends Paid)	(6.3)	(6.6)	(10.4)	(12.6)	(14.4)	(2.4)
Miscell. Financing Costs e.g. derivatives, bank fees						
Net Cash from Financing Activities	**(112.2)**	**(17.8)**	**270.0**	**(119.1)**	**(93.3)**	**(34.8)**
Net Cash Flow from Ops. Investing & Funding	27.0	76.5	(35.8)	(10.3)	(45.4)	(12.2)

Equity Analysis Model
TIC Global plc
Cash Flow Analysis

	Historical Data						Interim
Accounts date	2009	2010	2011	2012	2013	Period	2014
Currency / units	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill	Total	GBP mill
Cash Flow Summary	audited	audited	audited	audited	audited	2009-13	unaudited
Number of months	12	12	12	12	12		6
CASH FLOW FROM OPERATIONS							
Operating Profit	187	207	234	283	310	1,221	131
Other Non-cash & Exceptional Items	25	25	31	53	35	170	17
Investment Income							
"Cash Profit"	**212**	**231**	**265**	**337**	**345**	**1,390**	**149**
(Increase) / Decrease in Net Working Assets	19	(11)	(33)	(64)	(32)	(121)	(40)
Tangible Asset Depreciation	47	51	56	60	66	280	34
Net Capital Expenditure	(53)	(65)	(79)	(113)	(140)	(450)	(52)
(Tax Paid	(60)	(62)	(53)	(73)	(81)	(328)	(31)
(Dividends Paid)	(41)	(49)	(58)	(71)	(84)	(302)	(52)
Free Cash Flow before Interest	**125**	**96**	**99**	**76**	**74**	**469**	**7**
(Net Interest Paid)	(15)	(15)	(20)	(24)	(27)	(101)	(13)
Internal Cash Flow	**110**	**81**	**78**	**52**	**47**	**368**	**(5)**
ACQUISITION & FINANCING CASH FLOWS							
(Acquisitions),Disposals,(Investments)	(28)	(51)	(464)	(40)	(111)	(695)	(38)
Increase / (Decrease) in Share Capital	4	2	(7)	(6)	(16)	(24)	(20)
Increase / (Decrease) in Debt	(86)	51	358	(21)	31	332	47
(Increase) / Decrease in Cash		(83)	35	15	50	18	16
Net Financing Cash Flow	**(110)**	**(81)**	**(78)**	**(52)**	**(47)**	**(368)**	**5**

Equity Analysis Model
TIC Global plc
Share Price Data

	Historical Data					
Accounts date	2009	2010	2011	2012	2013	2014
Currency / units	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill
	12	12	12	12	12	6
Number of Shares & Eps						
Basic Earnings per Share (pence)	72.4	80.7	86.8	108.2	124.4	**51.8**
Adjusted Earnings per Share (pence or equiv.)	**83.0**	**91.0**	**109.1**	**133.1**	**140.2**	**61.8**
Interim Dividend Per Share (pence)	8.2	9.3	10.7	13.0	15.0	16.0
Final Dividend Per Share (pence)	17.3	18.8	23.0	28.0	31.0	
Total Dividends Per Share (pence)	**25.5**	**28.1**	**33.7**	**41.0**	**46.0**	**16.0**
Average number of common shares	158.400	159.300	159.900	160.600	161.200	161.100
Average number of preference shares						
Share Prices						
Common Share Price - Low (£)	7.62	11.36	16.82	21.00	27.84	25.39
Common Share Price - High (£)	13.68	20.43	21.72	32.46	35.10	31.63
Common Share Price - Average (£)	10.65	15.90	19.27	26.73	31.47	28.51
Preference Share Price - Low (£)						
Preference Share Price - High (£)						
Preference Share Price - Average						
Risk rating						
Variability %	23	24	26	25	24	24
Beta (actual or estimate)	0.87	0.85	0.82	0.92	0.86	0.86
Assumed Market Risk premium	**4.19**	**4.19**	**4.19**	**4.19**	**4.19**	**4.19**
UK 5-year Gilt Yield	**2.53**	**2.28**	**1.96**	**0.72**	**0.85**	**1.87**
3-month LIBOR or equivalent	2.71	0.61	0.76	1.08	0.52	0.55
Market Capitalisation						
Market Capitalisation - Common Stock	1,687	2,532	3,081	4,293	5,073	4,593
Market Capitalisation - Preference Stock	-	-	-	-	-	-
Market Capitalisation - Total	1,687	2,532	3,081	4,293	5,073	4,593
Minorities	18	23	24	25	24	28
Net Debt	201	170	581	551	618	661
Enterprise value [EV]	**1,906**	**2,725**	**3,686**	**4,869**	**5,715**	**5,282**

Equity Analysis

Equity Ratios						
Underlying Eps Growth %	22.4%	9.6%	19.9%	22.0%	5.3%	(1.3%)
P/E Ratio	12.8	17.5	17.7	20.1	22.4	23.1
Market / Book Ratio of Equity	5.25	5.52	5.90	6.82	6.92	6.26
Dividend Cover	3.3	3.2	3.2	3.2	3.0	3.9
Dividend Yield %	2.4%	1.8%	1.7%	1.5%	1.5%	1.1%
Total Return to Shareholders %	31.5%	51.9%	23.4%	40.8%	19.5%	(17.8%)
EV Valuation Multiples						
EV / Sales	1.54	1.98	2.11	2.37	2.62	2.58
EV / Book Capital Employed	3.53	4.18	3.27	4.04	4.16	3.71
EV / EBITA	9.0	11.9	13.3	14.7	16.5	16.9
EV / EBITDA	7.32	9.73	11.05	12.47	13.87	13.93
EV / Staff Costs	3.5	4.7	5.0	5.6	6.0	
EV / Sustainable Free Cash Flow	11.9	16.0	19.2	19.4	22.6	25.1

Equity Analysis Model
TIC Global plc

Financial Profile

	Historical Data					Interim
Accounts date	2009	2010	2011	2012	2013	2014
Number of months	*12*	*12*	*12*	*12*	*12*	*6*
Annual % Growth Rates						
Sales Growth	23.3%	11.1%	27.3%	17.4%	6.3%	(6.2%)
Margins and Cost Structure						
Cost of Sales % sales	(84.9%)	(85.0%)	(86.6%)	(86.2%)	(85.8%)	(87.2%)
Gross Profit % Sales	15.1%	15.0%	13.4%	13.8%	14.2%	12.8%
Personnel Costs % Sales	(44.4%)	(42.6%)	(42.5%)	(42.0%)	(43.9%)	
Depreciation % Sales	(3.8%)	(3.7%)	(3.2%)	(2.9%)	(3.0%)	(3.3%)
Total Amortisation % Sales	(1.4%)	(1.2%)	(1.7%)	(1.8%)	(1.3%)	(1.3%)
Total Exceptional Items % Sales (+/-)	(0.8%)	(0.4%)	(0.8%)	(0.5%)	(0.4%)	(1.4%)
EBITA% Sales	17.2%	16.7%	15.8%	16.1%	15.9%	15.2%
EBIT % Sales	15.1%	15.0%	13.4%	13.8%	14.2%	12.8%
Profitability / Return on Capital Employed						
EBITA % Capital Employed (pre-exceptionals)	39.4%	35.1%	24.6%	27.4%	25.2%	21.9%
Pre-tax Target Rate of Retum 0n Book Value	27.9%	31.9%	21.9%	23.4%	23.4%	25.2%
EBITA % Market Enterprise Value	11.2%	8.4%	7.5%	6.8%	6.1%	5.9%
Pre-tax Target Rate of Retum on Market Value	7.9%	7.6%	6.7%	5.8%	5.6%	6.8%
Asset Utilisation / Capital Intensity						
Sales / Total Assets	1.29	1.19	1.01	1.12	1.13	1.06
Stocks % Sales	0.6%	0.7%	0.7%	0.6%	0.6%	0.6%
Debtors % Sales	21.5%	22.9%	25.3%	24.5%	23.4%	25.3%
Creditors & Advance Payments % Sales	15.4%	16.6%	17.4%	16.1%	14.2%	13.8%
Net Working Assets % Sales	6.7%	7.1%	8.6%	9.0%	9.8%	12.1%
Intangibles % Sales	24.6%	25.1%	46.1%	40.1%	41.5%	44.6%
Tangible Fixed Assets % Sales	18%	18%	15%	15%	15%	17%
Depreciable Assets % Sales	15%	14%	12%	12%	13%	14%
Net Capex % Annual Depreciation	111%	127%	140%	189%	213%	154%
Average Age of Depreciable Assets (years)	5.0	5.7	6.0	6.3	6.3	6.3
Tax Ratios						
Effective Interest Rate [P&L] %	4.8%	4.0%	3.8%	3.5%	3.6%	3.8%
Effective Tax Rate [P&L] %	26.9%	26.8%	29.1%	26.7%	23.0%	24.6%
Cash Tax Rate [Cash Flow] %	35.2%	32.5%	25.1%	28.3%	28.7%	25.7%

Capital Structure & Credit Status

Balance Sheet Gearing & Leverage						
Leverage: (Net Debt % Capital Employed)	37%	26%	52%	46%	45%	46%
Net Debt % Enterprise Value	11%	6%	16%	11%	11%	13%
Interest Cover Ratios						
Interest Cover: (EBITA / Net Interest Paid)	14.1	16.8	14.1	14.3	14.1	13.7
Interest Cover: (EBITDA / Net Interest Paid)	17.2	20.6	17.0	16.8	16.8	16.6
Cash Flow before Interest / Cash Net Interest	8.3	6.6	4.9	3.1	2.7	0.6
Income Leverage (Debt Repayment Ability)						
Gross Debt / Cash Retained Profit (years to repay)	3.3	3.8	6.1	4.7	4.7	4.8
Net Debt / EBITDA	0.8	0.6	1.7	1.4	1.5	1.7

ADVANCED DIPLOMA

CASE STUDY EXAMINATION - NOTE FORM ANSWERS

OCTOBER 2014

Question 1 **[23.4 mins, 13 marks]**

Business environment
[Marking scheme – I have about 40 detailed points so 0.4 mark for each good point]

Organic growth has averaged 8%, falling to 4/5%, rising to 7%. Driven by global corporate activity and trade volumes.

Strong structural growth drivers include; more complex global supply chains, rapid technological development, increasing legislation, complexity of standards, quality and safety in developing markets.

Fragmented industry – of top 55, with estimated sales of £28 billion out of a global market estimated at £160 billion:
3 biggest have 32% with average sales of £1,000m (global share c. 11.4%)
10 biggest have 60% with sales > £850m, 000m (global share c. 21.4%)
35 smallest have 20% with sales < £250m.

Outside this sample there are thousands of much smaller companies with total sales of estimated £132 billions. These smaller companies are always innovating and developing new business streams, often more than the larger ones.

The industry is consolidating as well as spawning new businesses. All of the big three groups are active acquirers. 58% of their 117 acquisitions over the last four years had turnover less than £5m with only 4% over £100m.

Overall group size is critical – opens up business with governments and large global corporates not available to smaller regional players and global coverage is important especially for servicing global corporates.

The industry has network-based economies of scale. Also acquisitions yield cost synergies - given this is a service business, overhead costs and also assets of acquired companies can often be stripped out if group already has a presence in the country/region.
Peer group analysis

TICG is third globally, but often first or second in particular sectors. Its acquisitions were 13 in Europe and 13 in the Americas, adding 23% to organic growth. It now has roughly a third of its business in the three main global regions. It is relatively strong in Industrial and weak in Consumer business. On another dimension it has the largest dependence on Testing business and hardly any Certification business.

Swico has been biggest acquirer with 67 acquisitions, accounting for 78% over organic growth, 23 in the Americas where it has its lowest share of business. 28 were in Europe, Africa, M-East where it now does 49% of its business. It is relatively low in Industrial and Commodities business. It has the lowest proportion of Testing business and the largest Inspection business.

Euco has carried out 24 acquisitions adding 21% to organic growth, 11 in the Americas and 9 in Asia, where it has the lowest shares of the big three. It is relatively low in Consumer business. It has intermediate proportions of testing, Inspection and Certification businesses.

<u>Shareholders' Interests.</u>

Company's shareholder appeal is growth in the share price, given the low dividend yield (1.5% to 2%), due to both high P/E ratio (now >20) and low pay-out ratio (25% to 33%). Over the last five years the annual average total return was 33.4%, with share-price growth of (33.4 – 1.78) = 31.6% p.a. This sets very high expectations for future growth and that future acquisitions will add value.

<u>Main strategic drivers behind acquisitions.</u>

Summary – to add volume, new service lines, new markets, new technologies, new skills, best practices, complementary businesses and strategically important areas.
To fuel growth and increase overall size and market strength - needed to keep pace with peer-group acquisition strategies.
Targeted acquisitions to increase geographical and sector coverage by in-filling. The big three all have such gaps by geographical region or major sector but even more so at a detailed level.
Acquisition of small companies also helps maintain technical-service momentum.
TICG sees its global network of offices and labs as a key competitive factor so seeks to strengthen it further.

<u>Question 2</u> **[16.2 mins, 9 marks]**
[Marking scheme – I have 33 detailed points on this straightforward question so 1/3 mark for each good point – comprehensive answers were expected]

<u>Cash Flow Characteristics</u>
Operating profit and cash profit have grown steadily (not much difference between them, amortisation adding 14% to operating profit).
NWA has consistently consumed small amounts of cash with sales growth, but fluctuating (debtors exceed creditors, stocks immaterial).
Capex/depreciation = 1.61 over the period, well above replacement level, but much increased over the last two years.
Cash flow before tax, interest and dividends = 1,099, covering these three payments 1.5 times.

Tax payment rise steadily in line with profits.
Cash tax rate unexceptional at 29%, dividends a bit less, covered 2.6 times by cash flow after tax. Tax payments rise steadily with profits. Interest is modest and covered 4.6 times by cash flow after dividends.
Net result is Internal cash flow of 368 (32% of operating profit – very good) and positive in every year, though reducing steadily mainly because of higher capex.
So acquisitions and small share buy - backs of 719 have been 51% funded by generated cash flow, 49% by net debt. The pattern here differs from year to year, with reductions in net debt in 3 years out of 5, and increases in net debt with the acquisitions in 2011 and 2013.

This is a very strong and stable pattern of cash flows.

<u>Cash flow management priorities</u>
Maintaining operating profit and operating cash flow, especially via margins. Controlling balance between debtors (510) and creditors (309), both big in relation to cash profit of 345 in 2014, especially with recent and future acquisitions.
Ascertaining capex requirements over next few years (currently over double depreciation). Careful financial evaluation of all capex.
Careful financial evaluation of all acquisitions.
Given global spread of subsidiaries, remitting cash to group for payment of interest and dividends (630 payments out of 1,390 cash profit).
Funding flexibility planning for and managing the funding of acquisitions followed usually by partial repayment of borrowings.
Reducing cost of borrowing
International tax management.

<u>Question 3</u> **[21.6 mins, 12 marks]**

3.a. **(7.2 mins, 4 marks)**
[Marking scheme – up to 1 mark for each description based on credibility and quality of justification].

Geographic focus: increasing focus on emerging markets, having divested 11 European underperforming operations recently, will mirror to some extent its larger global customers' developments.

Product-market focus: global customers to which geographic coverage and scale economies are important and which provide repeat business (naturally compounding growth as one analyst observes).

Organisation structure: company has recently organised on business streams and is contemplating a regional structure as well. If global customers like the one described in Q6 become more dominant then a matrix type structure might be needed.

Growth: In the four years from 2009-2013, revenue compound annual growth rate (CAGR) was 17%. Over the same period price/earnings ratio (P/E) trended up from 12% to 22%. So investors appear to be expecting relatively high levels of growth. However in 2013 revenue growth by Division was:

2013 Sales %	Division	Total CAGR %	Organic Only %	Weighted CAGR %	Weighted Organic%
32	Industry & Assurance	7	4	2.24	1.28
27	Commodities	2	2	0.54	0.54
17	Consumer Goods	11	8	1.87	1.36
16	Commercial & Electrical	6	5	0.96	0.80
8	Chem. & Pharma.	9	2	0.72	0.16
100	Group	6.33		6.33	4.14

Testing, inspection and certification is a growing global market which is highly fragmented with three major players of which TIC Global plc is the smallest.

To match historic performance and apparent investor expectations organic growth will not be enough and acquisitions/mergers must play an important role. So it is important to distinguish between the two sources of growth, particularly for future funding requirements.

The total CAGR historic figures above – 17% and 6.33% - suggest an upper and lower limit on future growth estimates.

3.b. (14.4 mins, 8 marks)

[Marking scheme – up to 2 marks per treasury/finance area mentioned, depending on rationale for choice; expect to see three of the six areas listed below].

Treasury organisation: treasury has tried individual regional treasury specialists but that did not work, so now using selected finance managers as local treasury experts to champion treasury. Very likely that a three region structure will emerge, eg EMEA, Asia-Pacific, Americas. Could already justify one dealer in Shanghai.

Control and value added: the business is very highly decentralised and treasury, partly by force of circumstance, centralised/advisory-agency (a bit isolated?). Likely to see attempt to harvest benefits of closer control and transparency. Back office is already outsourced in US, UK and if significant M&A, integration will be an issue.

Currency: increasingly global clients, particularly in oil and mining which are USD businesses, want USD pricing worldwide. So geographic spread is not necessarily reflected in mix of revenue currencies. If testing increases then there will be more net investment risk – a lot of TIC business is executed solely by technical professionals but testing may require fixed assets locally.

M&A: already a regular feature of the business, involving mainly the acquisition of small teams of specialists. Future likely to see bigger deals with cost more closely related to market value of future earnings – more risk of error, more need for due diligence.

Funding: source of funding mainly USD private placing, good value to date (though one panic associated with loss of headroom on facilities when unhedged GBP/USD rates moved significantly). So need to establish footprint in other markets as a matter of prudence at least and M&A funding may be lumpy and significant if investor growth expectations are to be realised.

Emerging markets: added pressure on treasury to exercise control, achieve transparency and manage risks, eg counterparty, joint venture, transaction and net investment currency risks.

Question 4 [18.0 mins,10 marks]

4.a. (9.0 mins, 5 marks)

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

Balance sheet assets (historical cost basis) are an unreliable basis for valuing most companies, as evidenced by market/book ratios predominantly above 1.0. Using only tangible assets, which would be even more ridiculous, is a hangover from traditional credit thinking, which focused on the realisable security value of assets (see 4.b.). Assets per share is most relevant to share price when the great majority of a company's assets have a market value that can be easily established e.g. property, traded financial assets

Using tangible assets or even all assets is least relevant for a services company like TIC, where value is all about earnings, dividends and cash flow generated by its personnel, on the back of market reputation, competitive position and growth prospects. Intangible assets other than acquisition goodwill (737) consist of customer relationships and computer software (171), which contribute to future profits. Acquisition goodwill arises from the difference between fair value (future cash-flow value) and written-down book value of assets, so it arguably reflects the economic value of those business assets better than the book asset value does.

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TIC has, at 2014, a Market/Book ratio of the equity of 6.92 and a ratio of EV/Book capital of 4.16, indicating massive "value added" above the asset value, (way above the average values for all companies).

Since the real financial drivers of value are profits and cash flow the most relevant valuation ratios/methods are profit and cash-flow based, all allowing for growth in some way. Company has a P/E of 22.4 and EV/EBITDA of 13.87, both very strong multiples. The multiples have also increased by 75% and 91% over the period, thereby indicating the market's expectation of continued growth in profits and dividends. EV/Sustainable Free cash Flow at 22.6 is also very high.

4.b. (9.0 mins, 5 marks)

[Marking scheme – 1/3 mark for each good point – I have written a very full answer with 22 points – for teaching purposes]

Tangible net worth is widely used to assess creditworthiness of small businesses, given the instability of profits and cash flows and hence the difficulty of assessing a sustainable performance figures. It is arguably irrelevant for plcs and a blunt instrument in any case because of the wide and very variable discrepancy between historical book values and realisable market values of assets.

TNW = net worth less all intangible assets (756.7-907.3 = - [5] 150.6) as at 2013.

Ergo TNW = total assets less intangibles less financial debt less all other creditors and provisions.

Financial creditors (debt) of 735 (as at 2013) usually, via security, have a prior claim on the tangible assets of 1,023 (1,930.1 -736.8-170.5), which does give them tangible asset "cover". In comparison all other liabilities [8] (creditors, provisions etc) of 439 have inadequate cover of 288 i.e. the TNW deficit of 151.

But the implied underlying assumption of the TNW approach is that tangible assets are worth 100% of the book value and intangibles are worthless, both of which are clearly ridiculous assumptions. So these metrics can give only a very approximate indication of creditworthiness using trends over time. What really matters to lenders are a) the going concern value of the business and b) "gone-concern" value of the assets.

Lenders like the comfort of asset security (the "second way out"), ideally tied in with legal security charges, but usually strongly resisted by larger corporates. As required, they would estimate this "break-up" or "forced sale" value of the different categories of assets in detail. TIC's 1,930 of assets consists of 6% cash, 26% receivables, 3% property, 15% plant & machinery, 3% miscellaneous investments, tax assets etc. in estimated decreasing order of security value. So, with 32% cash and receivables – this is not a bad mix for realisable value.

The 9% intangibles and 38% goodwill would only be realisable on disposal of the business so, despite being based on future cash flow value, they are much less attractive to lenders for security purposes.

Balance sheet-based credit measures are also flawed for the above reasons but for TIC Net Debt/ Capital Employed is 45%, Debt/Equity Gearing 82%.

But credit status is primarily about the ability reliably and consistently to service, repay and refinance borrowings from cash flow, based on strong profits (just like valuation in 4.a.). So, against market values as at 2013, Net Debt % EV is as low as 11% and EBITA Interest Cover is 14.1, EBITDA Interest Cover = 16.8, Cash Interest Cover is 2.7, Net Debt/EBITDA is 1.5, all excellent ratios.

The company probably rates a strong BBB, but relatively stronger on interest cover and relatively weaker on book leverage.

Question 5 [36.0 mins, 20 marks]

5.a. (10.8 mins, 6 marks)
[Marking scheme – 1/3 mark for each relevant calculation and correct figure]

Initial purchase cost = 100,000 x £20.46 = £2,046,000

No dividend entitlement until November 2011 (shares bought ex-divi)
N.B. All dividends are re-invested in shares.

Nov 2011 dividend re-invested = £0.107 x 100,000 = £10,700 divided by 19.24 = 556 shares, new total 100,556 shares.
June 2012 divi = 0.23 x 100,556 / 26.72 = 866 shares, cumulative 101,422
Nov 2012 divi = 0.13 x 101,422 / 28.19 = 468 shares, cumulative 101,890
June 2013 divi = 0.28 x 101,890 / 32.15 = 887 shares, cumulative 102,777
Nov 2013 divi = 0.15 x 102,777 / 33.32 = 463 shares, cumulative, 103,240
June 2014 divi – value is in the cum-divi. price.

Disposal value = 103,240 x 25.64 = £2,647,074
Total return = 2,647,074 / 2,046,000 = 1.2938 i.e. 29.4% over 3 years
Compound annual ROR = 8.96%.

Should have sold in November 2013 – huge difference – c. 19% compound (timing is everything!).

5.b. (5.4 mins, 3 marks)
[Marking scheme – 1/3 mark for each relevant calculation or argument]

[For information only.
Fundamental principle – if 5-year gilt rates are used then the 5-year risk premium MUST be used – not a matter of choice. The ERP methodology calculates Rm then chooses and calculates an appropriate RF, thereby arriving at Rm – Rf. Given the Rm, using the (higher) 30-year Rf gives a lower Rm –Rf and v.v. as the table shoes. The main effect of using the 30-year method is to reduce the impact of beta because of the lower ERP.

30-year average rate of 4.07, ERP of 2.03, beta 0.6 = 5.288%
30-year average rate of 4.07, ERP of 2.03, beta 1.0 = 6.1%
30-year average rate of 4.07, ERP of 2.03, beta 1.4 = 6.912%
5-year average rate of 2.95, ERP of 4.19, beta 0.6 = 5.46%
5-year average rate of 2.95, ERP of 4.19, beta 1.0 = 7.14%
5-year average rate of 2.95, ERP of 4.19, beta 1.4 = 8.816%]

Academics usually favour the use of short-dated Gilts as the most “risk-free”, but these are more volatile (see table). Corporates tend to choose longer-dated Gilts, which are much more stable (a strong argument), to match their investment period. The most-quoted Equity Risk Premium range of 3% to 4% would indicate the use of 5-year or 10-year gilts for Rf. We use 5-year as the most “risk-free” rate. In any case we need some period average, preferably forward looking, rather than a spot rate at any time.

Using the average gilt rate for the last 3 years (the period of this particular investment) gives 1.147. We use 0.86 for Beta, which is close to the 5-year average, rather than the lower 2011 figure.

Required return after CAPM = 1.147 + (0.86 x 4.19) = 4.75%
(Required return = 2.073 + (0.86 x 2.61) = 4.32% if we use 10-year data)

Check; the return on the FTSE 100 of 7.287% (see below) indicates a delivered equity risk premium during the period of 7.278 – 1.147 = 6.14%, an excellent, short-term, above-normal performance based on market recovery from the recession.

But, looking forwards even at 2011 and given the recent unusually-low interest rates globally (e.g. UK Base Rate 0.5%) it might seem unwise to use such a low figure for Rf, but are we likely to return to interest rates typical before the crises of 2008/9 and when? Current Bank of England guidance indicates a likely rise of 2.5% in base Rate when the current abnormal situation ends, but the likely start date keeps getting pushed further out. So maybe 3.3% might be the new norm [1] as an average for the next 10 years, not a lot different from the historical 10-year average of 2.953% from the table. And maybe this is what investors might have assumed in 2011.
This would give; 3.3 + (0.86 x 4.19) = 6.9%.

In any case the return on the TIC investment was comfortably above this.

5.c. (10.8 mins, 6 marks)
[Marking scheme – 1/3 mark for each relevant calculation or argument]

Total return on FTSE 100 = 6,744 / 5,946 = 1.134 i.e. 13.4%, annual 4.287%.
Plus average FTSE 100 dividend yield of about 3% = **7.287%.**

If we allow for re-investment of dividends to be more strictly comparable with the TICG return we could quickly compound the dividend (1.03) to get 9.27/3 = 3.091% and an annual return of **7.378%.** (4.287+3.091) Or (not expected in exam conditions) we could calculate the detailed effect of re-investment in the FTSE this period, much as in part 5.a. to get an annual return of **7.437%.**

Euco return = 77.00/56.90 gives 10.6% annual plus 2% dividends = 12.6%
Swico return = 1989/1540 gives 8.9% annual plus 0% [9] dividends = 8.9%

Summary

TICG required return (historical)	4.75%
TICG required return (forward)	6.90%
FTSE last 3 years	7.29%
Swico return	8.90%
TICG return	8.96%
Euco return	12.60%

N.B. Different WACC targets for EUR and USD, also currency translation effects will affect comparisons.

Conclusion – TICG return was better than the required return and in the peer group range, but not the best (after 2013). Also better than the higher-risk FTSE despite a better than average FTSE performance.

TICG's price fell 23% in 2014, compared with Euco fall of 9.4% and Swico fall of 2.7%. Sector fell more than FTSE (up 1.4%) and TICG hit by some abnormal bad news.

5.d. **(9.0 mins, 5 marks**

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

Dps has grown by an average 15.9% p.a. over the last four years, but the annual growth rate varies considerably, so probably driven by a company policy of a target cover/pay-out ratio.

Dividend cover has fallen from 3.3 to 3.0, pay-out ratio rising from 30% to 33%, so a little conservative - but a progressive policy with dividends growing in line with profits plus some more.

Dividend yield is low and has fallen from 2.4% to 1.5% so the shares are essentially "growth" shares, not "yield" shares. But they do yield a steadily, growing cash flow. Their appeal is to investors who do not need a regular receipt of large cash dividends, who do not want taxed income, who are less risk-averse or who think that growth shares will give a higher total return than yield shares e.g. selective growth and higher-risk funds, wealthy personal investors who are comfortable with selling shares to create income when required and "tax-convenient".

The shares will be less attractive to the opposites of these e.g. income pension funds, individual investors/pensioners who require a steady, high-yielding cash income without having to sell shares.

Note "dividend independence "theory " and "clientele effect".

Question 6 **[18.0 mins, 10 marks]**

General Comments

TIC's customer is a good example of the new wave of global companies aspiring to a truly global view of the management of their business and pressuring their suppliers to cooperate. Here is a high-level framework for surfacing issues:

Issues	Functional Areas	Management Implications
• Structural Netting - internal - with customer(s)	Role of Treasury	• Need to fully understand dynamics of business - internally - externally - via intermediaries (eg bank) - at customers
• Transparency/Visibility • Power to Net Cash Systems	Treasury Organisation & Control	• Treasury interface with Business Units • M.I.S.
• Fx Risks • Liquidity Risks, Cash Payment Systems • Counterparty Risk	Core Treasury Mechanics	• Needs high level view ie hedge to which functional currency? • Feasible to execute? • Is "Authority" a dynamic balance debate?
• Transfer Pricing - internal - external • Competitor Response • Competitive Advantage	Business Organisation, Managerial Behaviour	• Affects Executive • Affects Rewards • Affects Job Satisfaction • Requires Cross Functional Thinking and Action, eg explaining opportunities for competitive advantage.
• Regulation • Accounting • Tax	Jurisdictional Considerations	• Legal Structure • Tax Management • GAAP

[Marking scheme – 6.a. expect to see at least three specific and relevant treasury/finance issues mentioned; 6.b. expect to see the explanation for managing these issues taking account of business management and strategic considerations].

6.a. (7.2 mins, 4 marks)

This part focuses on the treasury/finance issues which as a minimum comprise:

- visibility of the relevant USD cash flows
- feasibility of structural netting
- identification of currency risks
- feasibility of hedging

6.b. (10.8 mins, 6 marks)

This part asks about management and provides the opportunity to broaden the focus beyond core treasury mechanics, ie:

- Role of treasury
- Treasury organisation and control
- Business organisation and managerial behaviour
- Jurisdictional considerations

This goes beyond the company's current thinking about currency related risks, (although that does include consideration of competitor behaviour) ie:

> It is current company policy to hedge the larger transactions exposures and, if material at local level, some smaller ones.
>
> Pre-transaction risks, including for acquisitions, are hedged on a sliding scale related to time horizon, if material.
>
> Translation risk is not hedged other than structurally but communicated to shareholders
>
> Strategic risk is recognised, eg in terms of understanding competitor behaviour, and managed in the business planning process.

Currently materiality and the decentralised nature of the businesses seem to be key.

Question 7 [28.8 mins, 16 marks]

[Marking scheme – The response to Q3.a. particularly the quantification of growth, sets the scene for answering this Question. Part 7.a: for a pass, expecting to see organic growth and growth by acquisition treated separately and the very different implications for funding recognised. Part 7.b: for a pass, expect to see some discussion about the major relevant bank and capital market instruments and reference to the significance of a rating. Part 7.c: for a pass, expect to see quantified measure of materiality and broad outline of view on fixed versus floating – extra points for picking up on IRS collateral issue].

7.a. (9.0 mins, 5 marks)

Here is one way – but not the only one – to estimate future funding requirements. This way clearly distinguishes between funding for organic growth and acquisition growth.

FUTURE FUNDING							
ASSUMPTIONS	1. Sales growth 10% pa: Organic 7%, M & A 3%						
	2. Organic growth absorbs 25% of Marginal Sales value in Net Working Assets and Fixed Assets						
	3. M & A: Marginal Sales cost 2 x Sales value						
	4. Internal cash flow 2014 -2018 at least as much as 2009-2013						
	5. M & A funding with cash						
	2013	**2014**	**2015**	**2016**	**2017**	**2018**	
MARGINAL SALES							
Sales Last Yr		2184	2402	2642	2906	3196	
Organic Growth 7%		**153**	**168**	**185**	**203**	**224**	
M & A Growth 3%		**65**	**72**	**79**	**87**	**96**	
Sales This Yr	2184	2402	2642	2906	3196	3516	
MARGINAL FUNDING							
Organic x 25 %		**38**	**42**	**46**	**51**	**56**	**233**
M & A x 2.0		**130**	**144**	**158**	**174**	**192**	**798**
REFINANCE		**15**	**85**	**274**	**61**	**0**	**435**
INTERNAL CASHFLOW							**-366**
NEW FUNDING to be RAISED							**1100**

7.b. **(14.4 mins, 8 marks)**

Funding currently 95% USD, with USD private placements accounting for 66% of drawn funding and the rest being mainly a USD revolver.

The company has successfully accessed USD PP (and bank lending) during a period of tight credit, reflecting its good credit quality.

However, looking to the future it should think about expanding its footprint into the broader public bond market, perhaps working towards a MTN facility to provide refinancing alternatives. Securitisation of contracted revenue streams might occur to some students but for term debt this is probably not feasible because contracts are typically short term, ie less than a year. (If funding was to become tight, company might negotiate with larger clients for longer term contracts to facilitate securitisation).

A credit rating would seem to be a useful addition, especially as the company looks to be investment grade already.

It is important to keep adequate contingency arrangements for M&A growth.

Expect to see usual features – instruments, sources, counterparty profiles, maturity profile, headroom, refinancing limits, pre-funding options, documentation preferences, security, flexibility, leverage metrics, group versus local funding, bank relationship policy – with specifics relating to TIC Global.

7.c. **(5.4 mins, 3 marks)**

Materiality

- 2013	Floating rate debt is	£253m
	± 1% is	± 2.5m
- 2013	Cash is	£100m
	± 1% is	± 0.5m
- 2013	Net ± 1% is	± 2.0m

This is not material at present.

Guidelines

- Exploit current low fixed rates with fixed rate capital market debt
- If some fixed rate is callable and floating rate bank facility is not fully drawn, can change to floating if rates fall even further
- As rates rise, protect interest cover covenant
- Aim to keep exposure on PBT to + 1% for a + 1% rise in interest rates
- Altering balance of floating and fixed debt by altering mix of floating bank debt and fixed rate bonds can be preferable to using IRS because of collateral call risk.

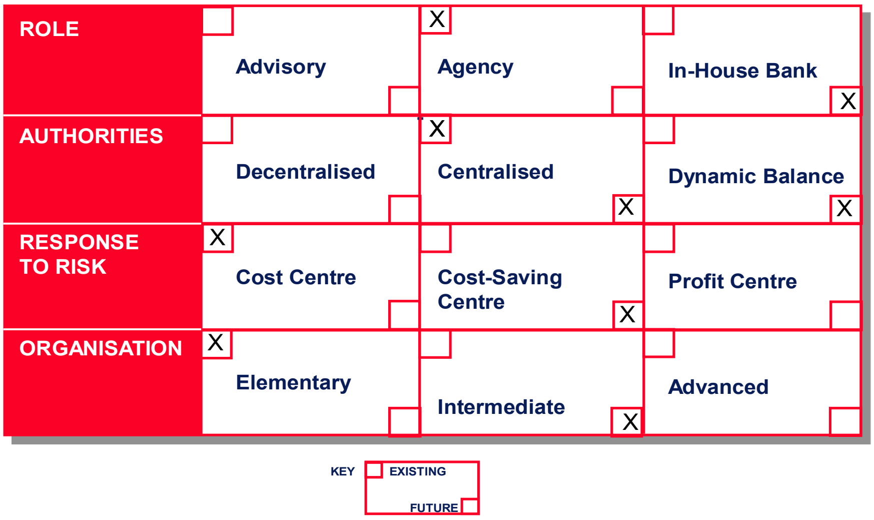
Question 8 **[18.0 mins, 10 marks]**

[Marking scheme – 8.a. – up to one mark for each of the four dimensions of the profile, depending on credibility of profile and quality of narrative. 8.b – up to 1.5 marks for each of the changes (or lack of changes) on the Profile].

8.a. **(7.2 mins, 4 marks)**

The Treasury Organisation Profile below indicates the profile now and where it is likely to go in the future, given the aspirations of the business.

Treasury Organisation Profile



Agency to In-House Bank: reference Q6, the larger global customers are likely to need global solutions. So the need for the company to provide good visibility and aggregation of data will increase.

Centralised to Dynamic Balance: both modes of exercising authority will be relevant but as the proportion of emerging market activity increases the need to devolve decision-making will also increase because of less developed financial infrastructure and jurisdictional barriers.

Cost Centre to Cost-Saving Centre: no evidence that shareholders or the executive should wish treasury to focus on financial risk-taking for profit rather than supporting the business where value can be added more readily by identifying and managing risk. However, as scale and visibility of activities increase so do the opportunities to avoid duplication, eg by netting, and the company will want to exploit these economies.

Elementary to Intermediate: The treasury organisation needs to align with the business organisation. The business has divisionalised and is contemplating a regional structure or even for some segments of the business a matrix structure.

8.b. **(10.8 mins, 6 marks)**

CONTEXT

Macro Policies at Parent apply at overseas Subsidiary level as well: As companies expand internationally they still usually wish to achieve a set of results at consolidated level which shows progressive development consistent with past performance, eg in terms of profitability, divided payout, levels of business risk and levels of financial risk.

But differences overseas disturb the risk-return balance: However different ways of doing business, different levels of economic development and different political imperatives, along with foreign exchange tax and legal differences, intrude to alter the risk profile.

So must adapt locally but try to filter out noise at consolidation: The response is to progressively adapt the business structure and the finance and treasury organisational profile to the new circumstances.

The business structure adaptation might involve divisionalisation, regionalisat6ion, matrix structures, joint ventures, minority holdings.

The Treasury Organisation Profile above at 8.a. summarises the Treasury element of just such an adaptation process.

At the corporate level some people summarise this adaptation as "trading off local efficiencies against Group distortions." Others, perhaps more bruised by the process, may refer to it as "central omniscience versus local intransigence." In any event it involves behavioural and cultural considerations as much as financial and technical efficiencies. Examples:

Agency to In-House Bank: For overseas entities, moving to In-House Bank ultimately means real-time visibility, netting of flows and portfolio management of risks where systems and jurisdictional considerations allow. This means that at subsidiary level the sense of managing a total business is diminished (eg surplus cash cushions removed, discretion about hedging removed). A culture change programme and re-balancing of performance-reward may mitigate but at this level re-staffing may be the only practical option.

Centralised to Dynamic Balance: Delegating discretion to remote subsidiaries (often precisely because they are remote) means a loss of control at the centre which may run very much against the grain of those managing centrally highly efficient systems. A mitigant is to involve these central managers in the delegation process and then later in the on-the-spot checks so they experience at first hand local problems.

Cost Centre to Cost Saving Centre: This is almost a natural progression as systems improve, financial markets develop and financial service providers create new offerings. Nonetheless it does represent a step change in performance measurement. One way to mitigate it is to broaden the measure of performance from Treasury “profit” to Business “value-added.”

Elementary to Intermediate: Again, almost a natural progression if – as in the case of Intertek, it is driven by sheer growth. However in practice this shift is often the result of a crisis where something goes wrong because the cause of it going wrong was nobody’s direct responsibility, eg a big collateral call on a derivative triggered by a large, unexpected shift in financial markets. The corporate response may be a step change in treasury control creating new roles at subsidiary level which are difficult to resource. Mitigation of this issue could be a mix of training of existing staff, contracting some interim managers and recruiting new full timers.

Examiner's Report

Advanced Diploma - October 2014

OVERALL SUMMARY OF PERFORMANCE

	General Exam	Case Exam	Combined
Average mark	52.3%	50.1%	51.2%
Questions	6	8	14
Students	30	24	54
Passes # @50%	18	12	30
Passes # @45%	25	17	42
Pass % (50%)	60%	50%	56%
Pass % (45%)	83%	71%	78%

Range of marks 36.2% to 74.8% 30.8% to 74.7%

OVERVIEW

Overall these results were good – better than average.

Unusually the results on the General Examination this time were better than those on the Case Examination and quite a lot better than the average of recent sittings. Across the two papers the average mark awarded on the Corporate Finance and Funding questions was 50.2% as against 52.1% awarded on the Treasury and Risk questions. Behind these figures, however, the results on CFF were generally very disappointing, with 5 questions failed out of 7 (TR 2 out of 7).

The questions where the average mark was below 50% were questions 1, 3 and 4 on the General Exam and questions 2, 4, 5 and 6 on the Case Exam.

General exam	marks available	50% passes ex. 30	average mark
Q1	25	13	48%
Q2	10	27	68%
Q3	15	11	48%
Q4	12		49%
Q5	12	15	53%
Q6	26	17	54%
		21	

Case exam	marks available	50% passes ex. 24	average mark
Q1	13	21	66%
Q2	9	5	42%
Q3	12	20	56%
Q4	10	10	43%
Q5	20	9	44%
Q6	10	10	48%
Q7	16	13	49%
Q8	10	16	53%

Examiner's Report - Case Study Examination

Question 1 **Non-financial analysis and strategic drivers behind company's acquisition policy.**

The answers to this question were very good and, unlike answers to other questions, were well focused on the actual question set. Candidates used the case-study background information, which they had clearly mastered, very well (average mark 66%, pass rate 88%)

Question 2 **Cash flow analysis and cash flow management issues.**

The answers, on what should have been an easy question given that all the numbers are given in the case study in a convenient format for analysis, were extremely disappointing (average mark 42%, pass rate only 21%). The most common errors were i) simply repeating a few key cash flow numbers, without any insight into the factors behind them, ii) trotting out a pre-prepared ratio analysis without relating it to the cash flows and the questions asked and iii) not bothering to think about the cash flow management implications of the pattern of historical cash flows at all. On the second failing it was pretty clear, after marking a few scripts, that the group had worked on financial ratios such as personnel costs % sales, CAGR of profit and EV/EBITDA, to name some of the most popular and least relevant to the question asked.

Question 3 **Future development of the business and the implications for treasury/finance**

This has been a predictable Question. It typically builds upon the responses to Questions 1, 2 in order to speculate about how Treasury needs to develop in order to align with the aspirations of the Business.

Some weaknesses demonstrated:

- Future Growth: more than half did not distinguish between organic and acquisition growth – these have very different funding implications

- Also high P/E and historic CAGR of 17% but candidates preferred to take the most recent year's growth as indicative of the future long term.

- Future product-market focus, geographic spread and business organisation: these tended to get superficial treatment.

Nonetheless the pass rate of "20/30" was the second highest of the eight Questions; so a good overall response and hopefully useful insights to inform responses to subsequent Questions.

Question 4 **The importance or otherwise of negative tangible net worth in equity valuation and credit assessment.**

The answers here were again disappointing, with only four candidates writing answers with some insight and understanding, applied to the two part-questions set. The typical mark of 35% to 45% for the bulk of candidates reflected the fact that they were able to explain the principles and techniques of both valuation and credit rating. What they did not do, however, was apply themselves to the question of the significance or otherwise of a balance sheet dominated by intangible assets. It may seem irrelevant or foolish but some lenders, rating agencies and equity analysts do go on about tangible net worth, whether positive or negative, and treasurers/finance directors have to have arguments and answers.

Question 5 **Calculation of holding return to shareholders and comparison with peer companies and required target return.**

This deceptively-simple set of questions, which required accurate number crunching but applied correctly using the appropriate analytical model, proved to be a very telling and an excellent discriminator. The average mark of 44% and pass rate of 38%

hides an interesting dichotomy. The nine passes achieved an average mark of 64.4%, the fifteen fails averaged 35.2%.

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Part 5a, which required the simple calculation of the return, over a three-year holding period, to a shareholder who re-invested all dividends. The fourteen candidates who passed this question averaged 67.5%, the ten who failed averaged 7.3% and 6 of these gained no marks at all, seemingly not having a clue about how to do the calculation correctly. There were some complicated but misguided DCF models (not required) and some awful averaging of annual returns (totally unreliable and conceptually unsound). The simple, correct model was buy shares, calculate each year's shares from re-invested dividends then sell all at the end!

Part 5b asked for a simple calculation of required return on the shares (CAPM), but with justification of the choice of risk-free rate and equity risk premium, this latter part being the downfall of weaker candidates. The marks showed a similar pattern, but not quite as bad as for 5a, with the ten fails averaging 31.9% and the fourteen passes averaging 69.9%. The weaker candidates knew the formulae but not how to apply them in real-world situations where choices have to be made from complex "messy" data.

Part 5c on calculation of and comparison with peer group returns showed a similar pattern but with lower marks and even fewer passes. The main failing was omission or wrong calculation of the dividend. Part 5d, on the company's dividend policy, was not quite so bad, though it should have been easy enough. By this stage candidates were keen to move on to the next question, I suspect, so answers were generally very thin.

<u>Question 6</u> **Global customers invoicing in a single currency**

A US global oil major for which TIC provides services in 25 countries across Europe, Africa, Central Asia and South East Asia requests validated centralised invoicing in USD for all the services provided globally. Like Question 5 about Net Working Assets in the October 2015 General Examination, this Question can be answered on several levels: (i) one-off currency risk management involving Treasury, (ii) one-off involving structured netting and financial control as well, (iii) a general trend involving the role of Treasury, Financial Control, Business Organisation and Jurisdictional Consideration. Responses ranged across all three levels but were mostly at level (ii) and level (i). Candidates found this to be one of the more difficult Questions on the paper, but issues like this one are becoming more common as larger companies with bargaining power seek to manage the complexities of doing business globally by passing them on to suppliers.

Question 7 Managing the future funding of the business

Question 3.a. asked for quantification of future business growth and Question 7.a. provides an opportunity to use that quantification to assess future funding needs. It was important here to distinguish between organic and acquisition growth because of the very different costs of funding an extra GBP 1 of sales. It was also important to think about whether acquisition funding would be all cash or at least some equity, particularly if it was to be a large acquisition. More than half of candidates came up with credible estimates, ‘though a variety of approaches were used.

Re. materiality of interest rate risk, about half came up with a number, typically based on a ± 1% shift in rates. However, a few missed out that only a third of debt is floating, so heavily over-estimated sensitivity.

Pass rate overall was 13/24.

Question 8 Aligning treasury organisation with the development of the business

Question 8 again builds on Question 3.a. and also Question 7 responses. It is about assessing where TIC is now on the Treasury Organisational Profile and adjusting that Profile where necessary so that it aligns with where the Business is going in the medium to long term.

Most responses saw TIC treasury as very centralised and otherwise towards the left hand side of the Profile Matrix. In the future most saw the need for a step change to the right. Part 8.a. dealt with recording this shift. Part 8.b. asked about the problems that this might raise and how they might be managed – a very open-ended Question! Part 8.b. carried 50% more marks than 8.a., on the basis that the latter is more difficult – and so it proved to be. As with many issues in treasury which are prompted by technical considerations, organisational change is largely behavioural!

Overall the pass rate was 16/24, a good result.