PROJECT 1

Kerria Carpets plc

John Kerria had been the Sales Director of the largest carpet retailer in the UK for more than ten years. Following the appointment of a new Chief Executive, however, he became disillusioned with the direction in which the company was being taken and so decided to start his own business. With the help of a consortium of venture capitalists he founded Kerria Carpets plc, which began trading in 1994. The company sells carpets, rugs, vinyls and wood-like laminate flooring to the public and now has outlets throughout the south of England, Wales and Northern Ireland. The company was floated on the London Stock Exchange in 1997 and, at that point, the venture capitalists realised their investment in the company. However, John Kerria retained a twenty-five per cent shareholding and is the largest shareholder in the company. He is also the chairman and the chief executive of the company.

Kerria Carpets plc operates through two trading formats:

– Carpet Park is a chain of out-of-town superstores that sells own-brand carpets to the lower and middle sectors of the market.

– Carpetier is a chain of high street stores that sells high quality, branded carpets to the upper sector of the market.

Both formats have traded profitably since the company was formed.

John Kerria started the company in 1994 when the market for floor coverings was far from buoyant. Sales volumes and prices for the industry had been static for some years and there was considerable overcapacity within the carpet manufacturing industry. Nevertheless, he believed that it was possible to grow a successful carpet retail business by aggressively acquiring a large market share. A very large proportion of total carpet sales within the UK are made through more than four thousand small, independent retailers and John Kerria believed that it was possible to obtain competitive advantage through the use of scale. From the outset, Kerria Carpets plc was a relatively large player in the market and was able to buy large quantities of carpets from beleaguered carpet manufacturers at competitive prices. These price benefits were then passed on to the customer.

John Kerria recognised that those customers seeking high-quality, branded carpets did not usually shop in out-of-town superstores and so the Carpetier chain of high street shops was created to cater for this end of the market. These shops provide a more personal service to customers within a showroom format. This had proved to be a successful strategy and sales for the highest-priced carpets have accounted for an increasing share of total sales of the company by volume (see below).

	Percentage of sales by volume for the year to 31 May				
	1999	2000	2001	2002	2003
Price per square metre (£)					
1–15	55	53	48	46	42
16–30	31	30	28	27	26
>30	14	17	24	27	32

Since its flotation, the company has been well regarded by investment analysts and investors and has a reputation for delivering solid earnings and sales figures. The profit and loss accounts for the company for the past five years are as follows:

	Profit and loss accounts for the years ended 31 May				
	1999 £m	2000 £m	2001 £m	2002 £m	2003 £m
Turnover	190·5	205·8	212·9	226·8	254·2
Cost of sales	(79·1)	(86·5)	(90·6)	(97·6)	(110·6)
Gross profit	111·4	119·3	122·3	129·2	143·6
Distribution	(11·3)	(11·7)	(11·9)	(12·1)	(12·4)
Administration	(89·6)	(96·4)	(98·5)	(103·5)	(116·4)
Operating profit	10·5	11·2	11·9	13·6	14·8
Interest payable	(8·5)	(7·8)	(7·5)	(7·5)	(7·5)
Profit for the year	2·0	3·4	4·4	6·1	7·3
Dividends	(1·0)	(1·7)	(2·2)	(3·1)	(3·7)
Retained profit for the year	1·0	1·7	2·2	3·0	3·6

It can be seen that dividends have been paid for each of the past five years, although for the first few years all profits had been retained to strengthen the capital base of the company.

The balance sheet of the company as at 31 May 2003 is as follows:

	£m	£m	£m
Tangible fixed assets			
Cost			168·6
Less Accumulated depreciation			(40·0)
			128·6
Current assets			
Stock	43·2		
Debtors	7·8		
Cash	1·2	52·2	
Less: Amounts due for repayment within one year			
Trade creditors	(25·6)		
Other creditors	(10·8)	(36·4)	15·8
			144·4
Less Amounts due for repayment after one year			
Loan capital			(90·0)
			54·4
Capital and reserves			
Called-up share capital			30·0
Profit and loss account			24·4
			54·4

Since Kerria Carpets plc was first launched, sales for the carpet industry as a whole have remained static and there is little prospect of an upturn in demand in the foreseeable future. Nevertheless, John Kerria believes that company sales can continue to increase by seizing greater market share and that profit margins can also increase through greater concentration on the upper end of the market. To this end, John Kerria has developed an ambitious plan to double the number of high street shops over the next five years.

The plan will involve an expansion of high street stores in the north of England. To support these stores, a new warehouse with 8,000 square metres of storage space will be built in Yorkshire and will incorporate the latest machinery and cutting equipment. The cost of freehold premises and equipment arising from this expansion is estimated to be as follows:

Year to 31 May	2004	2005	2006	2007	2008
	£40·4m	£27·5m	£12·3m	£12·9m	£18·0m

Depreciation will be charged at an average figure of 4% per annum on the cost of the new fixed assets acquired. This is in line with the average depreciation charge for tangible fixed assets already held.

The increase in sales and operating expenses (including depreciation) following implementation of the plan is estimated to be as follows:

	Estimated increase over previous year		
	Sales		Operating expenses
Year to 31 May	Minimum £m	Maximum £m	£m
2004	10·5	14·0	2·8
2005	7·4	12·1	1·6
2006	8·5	10·2	1·7
2007	9·5	12·4	2·0
2008	10·6	13·0	2·2
2009	8·9	10·6	1·8
2010	6·8	7·8	1·4
2011	4·6	5·8	1·0
2012	4·0	5·2	0·9
2013	2·8	3·5	0·6

For five years after 2013, it is anticipated that the total sales and operating expenses will remain at the 2013 figures.

After this period, additional operating expenses are expected to rise to the point where the net benefits of the expansion programme will decline to zero. The increases in working capital necessary to sustain the expansion programme are expected to be 10% of sales growth. The gross profit margin is expected to increase by around 0·5% per year in each year over the first 10 years as a result of the increase in sales of higher priced carpets.

John Kerria does not wish to use equity finance to finance the expansion programme. He will not agree to an issue of new shares or any decrease in the dividend payout ratio by the

company. He wishes to raise the necessary funds through borrowing and suggests that the company should issue debenture stock immediately at an interest rate of 7%. He has already had preliminary discussions with the company's financial advisors who believe that it may be possible to raise sufficient funds in this way in order to finance the expansion plan. However, the debenture deed is likely to impose certain restrictive covenants on the company and these include a requirement to maintain an interest cover ratio of 3·5 times. The debenture issue will also require adequate security and would have to be repaid on 31 May 2010.

The weighted average cost of capital of the company is 10%.

Required:

(a) Based on the information provided, produce an estimate of how much the company will have to raise in order to finance the expansion plan, assuming there was an immediate issue of debenture stock. (15 marks)

(b) Identify and discuss any issues that may arise as a result of funding the expansion plan by an issue of debenture stock. (7 marks)

(c) Suggest an approach to borrowing in order to finance the expansion plan that may be used instead of the one suggested by John Kerria and discuss the advantages and disadvantages of this approach. (5 marks)

(d) Evaluate the financial implications of the expansion strategy using the net present value method.(15 marks)

(e) Explain how the validity of the assumptions and forecasts provided in the case study may be tested. Where the information allows, provide suitable workings to support any points that you wish to make concerning the assumptions and forecasts made. (8 marks)

(50 marks)

Notes:

1. In answering the case study all key workings and assumptions that you make must be clearly stated.
2. Workings should be in £ millions and should be made to one decimal place.
3. Ignore taxation.

SUGGESTED ANSWERS FOR PROJECTS

Kerria Carpets plc

(a) Funding requirements

If there is an immediate issue of debenture stock, there should be sufficient funds to pay for the costs of expansion based on those estimates currently available. When calculating the funds required, it is prudent to assume the minimum level of sales mentioned in the case study. The following calculations show the funding gap.

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 onward

											s
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Sales	264·7	272·1	280·6	290·1	300·7	309·6	316·4	321·0	325·0	327·8	327·8
Gross profit	150·9	156·5	162·7	169·7	177·4	184·2	189·8	194·2	198·3	201·6	201·6
Operating											
expenses	(131·6	(133·2	(134·9	(136·9	(139·1	(140·9	(142·3	(143·3	(144·2	(144·8	(144·8)
Operating	)	)	)	)	)	)	)	)	)	)	
profit											56·8
Add Depr'n*	19·3	23·3	27·8	32·8	38·3	43·3	47·5	50·9	54·1	56·8	11·1
Operating	8·3	9·4	9·9	10·4	11·1	11·1	11·1	11·1	11·1	11·1	
cash flows											67·9
Interest	27·6	32·7	37·7	43·2	49·4	54·4	58·6	62·0	65·2	67·9	(7·5)
Dividends*	(7·5)	(7·5)	(7·5)	(7·5)	(7·5)	(7·5)	(7·5)	(7·5)	(7·5)	(7·5)	(24·7)
Additional	(5·9)	(7·9)	(10·2)	(12·7)	(15·4)	(17·9)	(20·0)	(21·7)	(23·3)	(24·7)	
FCI											
Additional	(40·4)	(27·5)	(12·3)	(12·9)	(18·0)						
WCI											
Funding	(1·0)	(0·7)	(0·9)	(1·0)	(1·1)	(0·9)	(0·7)	(0·5)	(0·4)	(0·3)	
surplus/(gap											35·7
)	(27·2)	(10·9)	6·8	9·1	7·4	28·1	30·4	32·3	34·0	35·4	

* The dividend payment is slighter higher than the dividend that is likely to be paid. This is because the dividend payout ratio (50%) applied does not take account of the additional interest payments on new loan finance that must be paid and which will reduce profits available for dividend. The higher dividend payment will have the effect of producing a more conservative funding requirement.

(10 marks)

The depreciation charges are calculated as follows:

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 onwards
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Depr'n existing fixed assets											
Acquisition	6·7	6·7	6·7	6·7	6·7	6·7	6·7	6·7	6·7	6·7	6·7
2004											
2005	1·6	1·6	1·6	1·6	1·6	1·6	1·6	1·6	1·6	1·6	1·6
2006		1·1	1·1	1·1	1·1	1·1	1·1	1·1	1·1	1·1	1·1
2007			0·5	0·5	0·5	0·5	0·5	0·5	0·5	0·5	0·5
2008				0·5	0·5	0·5	0·5	0·5	0·5	0·5	0·5
Total					0·7	0·7	0·7	0·7	0·7	0·7	0.7
	8·3	9·4	9·9	10·4	11·1	11·1	11·1	11·1	11·1	11·1	11·1

The funding deficit in the first two years is (£27·2m + £10·9m) = £38·1m. Cash flows are

positive from 2006 onwards but before this year, the company will have to borrow sufficient funds to cover the expansion costs and to pay the interest payments that fall due. Interest on the debenture stock is payable at the rate of 7% per annum.

Thus, it will be necessary to borrow approximately £44·3m as this will result in:

	£m
Annual interest charges in the first two years(£44·3m x 7%) x 2	6·2
Funding gap in first two years	38·1
Total funding required	44·3

This calculation assumes that any funds that are temporarily surplus to requirements cannot be invested and thereby generate returns. If surplus funds can be invested, any returns generated will reduce the borrowing requirement.

The cash flows generated from 2006 to the maturity of the debenture stock in 2010 will be sufficient to pay the interest and to repay the principal sum:

	£m
Surplus cash flows from 2006–2010 will be: (6·8 + 9·1 + 7·4 + 28·1 + 30·4)	81·8
Annual interest charges in the last five years of debenture (£44·3m x 7%) x 5	(15·5)
	66·3
Debenture repayment	44·3
Remaining surplus	22·0

(5 marks)

(b) If a debenture issue is made immediately, and sales are the minimum expected, the forecast profits for the first five years of the expansion programme and the interest cover ratio for each of these years will be as follows:

	Profit and loss accounts for the years ended 31 May				
	2004	2005	2006	2007	2008
Operating profit (see above)	19·3	23·3	27·8	32·8	38·3
Interest payable	(10·6)	(10·6)	(10·6)	(10·6)	(10·6)
Interest cover ratio	1·8	2·2	2·6	3·1	3·6

It can be seen that the restrictive covenant concerning the interest cover ratio cannot be complied with until 2008.

Further issues that may have been discussed include:

– the relatively high balance sheet gearing of the company, following the issue of the debentures.

– the lack of clarity concerning available security (at least in the early years before sufficient new premises are acquired). **(7 marks)**

(c) An alternative approach would be to delay the borrowing until the funds are needed rather than to borrow the funds immediately. The advantage of this approach is that it may not be necessary to borrow as much. At the beginning of the expansion programme it is prudent to plan on the basis of the minimum level of sales being achieved. This will identify the maximum level of funding required. However, this may prove to be too pessimistic and, as time progresses, higher sales (and profits) may be achieved. Thus, by delaying, the amount

borrowed may be adjusted according to circumstances. This approach should also overcome any difficulties concerning security for the amount borrowed, as the premises acquired should offer sufficient security.

Although John Kerria has expressed a preference for a debenture issue, this may not be possible if the funding is relatively small and required on a piecemeal basis over time. However, it may be possible to obtain bank credit for an agreed maximum amount and to draw down amounts as and when required. A series of term loans may also be considered. However, this latter approach carries the risk that at some future point a term loan will be denied and so the expansion programme will be undermined, (although there is no evidence to suggest this is likely).

Leasing may also be considered in answering this part of the case study. **(5 marks)**

(d) The profitability of the expansion plan can be calculated as follows:

Year Ended 31 May	Additional gross profit based on minimum sales	Additional operating expenses (exc.depr'n)	Additional fixed asset investment	Additional working capital	Net cash flows	Discount rate	Present value
	£m	£m	£m	£m	£m	10%	£m
2004	7·3	(1·2)	(40·4)	(1·1)	(35·4)	0·909	(32·2)
2005	12·9	(1·7)	(27·5)	(0·7)	(17·0)	0·826	(14·0)
2006	19·1	(2·9)	(12·3)	(0·9)	3·0	0·751	2·3
2007	26·1	(4·4)	(12·9)	(1·0)	7·8	0·683	5·3
2008	33·8	(5·9)	(18·0)	(1·1)	8·8	0·621	5·5
2009	40·6	(7·7)		(0·9)	32·0	0·564	18·0
2010	46·2	(9·1)		(0·7)	36·4	0·513	18·7
2011	50·6	(10·1)		(0·5)	40·0	0·467	18·7
2012	54·7	(11·0)		(0·4)	43·3	0·424	18·4
2013	58·0	(11·6)		(0·3)	46·1	0·386	17·8
2014–18	58·0	(11·6)			46·4	1·461	67·8
Net present value of expansion programme							126·3

The expansion programme seems to be very profitable, based on the information provided. Similar calculations can be carried out to calculate the NPV based on the maximum expected sales. **(15 marks)**

(e) The validity of the assumptions and forecast can be checked by examining:

– Forecasts for the economy as a whole
– Industry forecasts
– Past trends within the business

In relation to the last item, the following trends over the past five years should be examined:

Gross profit This shows a declining gross profit margin despite an increase in the proportion of high price carpets sold. This contrasts with the assumption made concerning the profitability of the future strategy. This is a key issue that casts some doubt on the strategic direction of the business and requires further investigation.

Operating expenses This shows a much higher percentage of operating expenses to sales ratio than is being forecast for the expansion plan.
Working capital needs This is currently lower than the forecast figure of 10% of additional sales.
Sales The minimum predicted increase in sales over the next ten years is less than the increase in sales achieved over the past five years. The maximum predicted increase in sales is also less than the increase in sales achieved over the past five years.
The main concern seems to be the assumptions regarding gross profit and operating expenses, which may require further examination.
(8 marks)