

## Chapter 12 Understanding financial reports: analysis of trends

### Questions

1. Jefferson Jellaby Limited (JJ Limited) and Karma Kaplan Limited (KK Limited) are both manufacturing companies operating in the same industry. Kelly, a financial analyst, has noted down the following key details from the profit and loss accounts for the two companies for 20X6:

	JJ Limited	KK Limited
	£	£
Sales	984 980	1 006 251
Cost of sales	(666 831)	(657 082)
Gross profit	318 149	349 169

#### Notes:

1. Kelly notices that the two companies have different accounting policies in respect of depreciation of plant and machinery. JJ Limited depreciates its plant and machinery over a 5 year period on the straight line basis, whereas KK Limited depreciates similar assets at a rate of 10% per year on the reducing balance basis. Kelly estimates that, in order to make the results of the two companies comparable, she should add £26 000 to the cost of sales of KK Limited.
2. KK Limited's figures include the results of a retail business which was set up during the 20X6 financial year. JJ Limited has no retail business. Sales from KK Limited's retailing operation were £102 570 and cost of sales was £85 450.

Required: adjust the sales, cost of sales and gross profit figures of KK Limited in order to provide figures which can be validly compared to those of JJ Limited. Which company has the better gross profit margin, once the figures have been adjusted?

2. A financial analyst has produced the following analysis of the results of Dahlia Desmond Limited for the financial year ending in 20X2:

20X2 vertical analysis	Horizontal analysis: 20X2
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		compared to 20X1
	%	%
Sales	100.0	3.7
Cost of sales	65.2	2.9
Gross profit	<u>34.8</u>	
Administrative expenses	6.2	6.4
Selling and distribution costs	5.7	(2.8)
Operating profit	<u>22.9</u>	
Interest payable and similar charges	1.6	(17.3)
Profit before taxation	<u>21.3</u>	
Taxation	6.4	5.7
Profit after taxation	<u>14.9</u>	
Dividend	6.2	—
Retained profit for the year	<u>8.7</u>	

The vertical analysis is worked on the basis that sales = 100%.  
 NB: the percentages in brackets in the horizontal analysis are decreases in the item between 20X1 and 20X2.

The gross profit in 20X2 was £983 772 and the retained profit for the year in 20X1 was £203 219.

Required: work out the profit and loss account figures for 20X2 and 20X1. Work to the nearest £.

3. Dingwall Derby Limited is a manufacturer of crockery. The company's results for a four year period are summarised as follows:

	20X4	20X3	20X2	20X1
	£	£	£	£
Sales	686 432	662 750	668 921	695 551
Cost of sales	489 289	457 960	461 555	477 844
Gross profit	<u>197 143</u>	<u>204 790</u>	<u>207 366</u>	<u>217 707</u>
Administrative expenses	62 446	63 800	65 750	66 620

Selling & distribution	51 449	50 940	50 226	51 003
Operating profit	83 248	90 050	91 390	100 084
Interest payable	2 842	1 603	—	—
Profit before taxation	80 406	88 447	91 390	100 084
Taxation	20 100	22 850	25 570	29 870
Profit after taxation	60 306	65 597	65 820	70 214
Dividends	30 000	30 000	35 000	35 000
Retained profit	30 306	35 597	30 820	35 214

In recent years the company has struggled to retain its former levels of profitability. The directors have mainly concentrated on cost-cutting in order to keep profit levels up. However, during the 20X4 year they decided to try a new strategy of cutting prices in order to boost sales.

Required: work out the percentages for both a common size analysis (where sales = 100%) and a horizontal analysis of the four years' results. Work to one decimal place. Write a brief report on the performance of the company over the period reviewed. How successful do you consider the directors' cost-cutting and price reduction strategies to have been?

#### 4. Balfour Beattie plc

Balfour Beatty plc is a very large UK listed company, operating in the engineering, construction and services sectors. It operates in many overseas countries, undertaking construction and civil engineering projects in, for example, the USA and Hong Kong. It was recently responsible for the building of the UK's first motorway toll road (the M6 Tollway). Extracts from the group's five year summary over the period 1999–2003 are shown below:

	2003	2002	2001	2000	1999
	£m	£m	£m	£m	£m
Turnover	3 678	3 441	3 071	2 603	2 904
Operating profit	161	149	136	110	93
Profit before interest and tax	149	119	137	118	(341)

Net interest payable	(31)	(31)	(34)	(28)	(39)
Profit/ (loss) before tax	118	88	103	90	(380)

Working to one decimal place for all percentages, the following are required:

- (a) a horizontal trend analysis of Balfour Beatty's results from year to year;
- (b) common size statistics for each year based on revenue = 100%
- (c) a commentary on the group's performance over the five year period.

## Answers

1. The adjustments to KK Limited's figures are as follows:

	£
Sales (£1 006 251 – 102 570)	903 681
Cost of sales (£657 082 + 26 000 – 85 450)	<u>597 632</u>
Gross profit	<u>306 049</u>

Gross profit percentage:

$$\frac{306\,049}{903\,681} \times 100 = 33.9\%$$

Gross profit percentage in JJ Limited:

$$\frac{318\,149}{984\,980} \times 100 = 32.3\%$$

KK Limited has the higher gross profit percentage.

2. Dahlia Desmond Limited

In 20X2 gross profit is 34.8% of sales. Because we have the gross profit figure we can work out sales as follows:

$$£983\,772 \times \frac{100}{34.8} = £2\,826\,931$$

Sales of £2 826 931 = 100%. Using this information we can calculate the rest of the profit and loss figures for 20X2:

### Dahlia Desmond Limited: profit and loss account for 20X2

	£
Sales (as above)	2 826 931
Cost of sales (£2 826 931 × 65.2%)	1 843 159
Gross profit (as above)	<u>983 772</u>
Administrative expenses (£2 826 931 × 6.2%)	175 270
Selling and distribution costs (£2 826 931 × 5.7%)	161 135
Operating profit	<u>647 367</u>

Interest payable and similar charges (£2 826 931 × 1.6%)	45 231
Profit before taxation	602 136
Taxation (£2 826 931 × 6.4%)	180 924
Profit after taxation	421 212
Dividend (£2 826 931 × 6.2%)	175 270
Retained profit for the year	245 942

Because we know the increases and decreases in the various profit and loss account items between 20X1 and 20X2 we can work out the 20X1 profit and loss account figures, as follows:

Dahlia Desmond Limited: profit and loss account for 20X1

	£
Sales (£2 826 931 × 100/103.7)	2 726 067
Cost of sales (£1 843 159 × 100/102.9)	1 791 214
Gross profit	934 853
Administrative expenses (£175 270 × 100/106.4)	164 727
Selling and distribution costs (£161 135 × 100/97.2)	165 777
Operating profit	604 349
Interest payable and similar charges (£45 231 × 100/82.7)	54 693
Profit before taxation	549 656
Taxation (£180 924 × 100/105.7)	171 167
Profit after taxation	378 489
Dividend (no change)	175 270
Retained profit for the year (given in the question)	203 219

3. Dingwall Derby Ltd

Dingwall Derby Limited: common size analysis of the profit and loss account 20X1–20X4

	20X4	20X3	20X2	20X1
	%	%	%	%
Sales	100.0	100.0	100.0	100.0

Cost of sales	71.3	69.1	69.0	68.7
Gross profit	28.7	30.9	31.0	31.3
Administrative expenses	9.1	9.6	9.8	9.6
Selling & distribution	7.5	7.7	7.5	7.3
Operating profit	12.1	13.6	13.7	14.4
Interest payable	0.4	0.2	—	—
Profit before taxation	11.7	13.4	13.7	14.4
Taxation	2.9	3.5	3.8	4.3
Profit after taxation	8.8	9.9	9.9	10.1
Dividends	4.4	4.5	5.2	5.0
Retained profit	4.4	5.4	4.7	5.1

Dingwall Derby Limited: horizontal analysis of the profit and loss account 20X1–20X4

	20X4	20X3	20X2
	%	%	%
Sales	3.6	(0.1)	(3.8)
Cost of sales	6.8	(0.1)	(3.4)
Gross profit	(3.7)	(1.2)	(4.7)
Administrative expenses	(2.1)	(3.0)	(1.3)
Selling & distribution	0.1	1.4	(1.5)
Operating profit	(7.6)	(1.5)	(8.7)
Interest payable	77.3	—	—
Profit before taxation	(9.1)	(3.2)	(8.7)
Taxation	(12.0)	(10.6)	(14.4)
Profit after taxation	(8.1)	—	(6.3)
Dividends	—	(14.3)	0
Retained profit	(14.9)	15.5	(12.5)

### Report on the performance of Dingwall Derby Limited 20X1–20X4

The performance of the company has declined over the four year period despite the effort of the directors to maintain profitability. Gross profit margin declined from 31.3% in 20X1 to 30.9% in 20X3, but there has been a substantial fall to 28.7% in 20X4. This has probably occurred because of the deliberate policy of price cutting. This strategy can work if it helps to boost sales. However, although sales have increased (by 3.6%) between 20X3 and 20X4 the increase in volume has not been sufficient to offset the effects of the drop in gross profit margin, and gross profit fell by over £7000 between 20X3 and 20X4. (It is also noticeable that sales in 20X4 had still not recovered their 20X1 level). However, it may be that the new strategy took effect only part way through the accounting year. It may take time for the effects of the price cuts to feed through into better results. The directors will have access to more detailed information (e.g. weekly sales figures and monthly internal accounts) which will help them to assess whether or not the strategy of price cutting is having the desired effect.

Administrative expenses have fallen each year and it seems that the policy of tight cost control may be having some beneficial effect. Selling and distribution expenses have remained at a fairly constant level throughout the period. It may be that cost cutting efforts by the departments concerned have been less effective and perhaps the directors need to make further efforts to cut these categories of cost. However, it should be noted that, while cost cutting can be effective, it may also have adverse consequences. For example, if there is a freeze on salary and wage increases, staff may become unhappy and may move elsewhere.

In 20X3 the company started paying interest, indicating that it has borrowed cash. If the cash were invested in additional fixed assets the investment does not appear to have produced any significant beneficial result by the end of 20X4.

The rate of dividend was cut in 20X3 by £5 000. While this has helped to maintain the level of retained profits at a reasonably steady rate over the four-year period, it may not be a popular move with shareholders.

In summary, some aspects of the directors' profit maintenance strategies appear to have met with moderate success. However, there has been no overall improvement in the company's performance over the four-year period and it may be that more radical action is required.



#### 4. Balfour Beatty

##### (a) Balfour Beatty: horizontal analysis for the five years 1999–2003

	2003	2002	2001	2000
	%	%	%	%
Turnover	6.9	12.0	18.0	(10.4)
Operating profit	8.1	9.6	23.6	18.3
Profit before interest and tax	25.2	(13.1)	16.1	-
Net interest payable	0.0	(8.8)	21.4	(28.2)
Profit/loss before tax	34.1	(14.6)	14.4	-

##### (b) Balfour Beatty: common size analysis for the five years 1999–2003

	2003	2002	2001	2000	1999
	%	%	%	%	%
Turnover	100.0	100.0	100.0	100.0	100.0
Operating profit	4.4	4.3	4.4	4.2	3.2
Profit before interest and tax	4.1	3.5	4.5	4.5	(11.7)
Net interest payable	(0.8)	(0.9)	(1.1)	(1.1)	(1.3)
Profit/(loss) before tax	3.2	2.6	3.4	3.5	(13.1)

- (c) After its loss-making year in 1999, the group's performance has improved significantly. Turnover has risen each year since 2000 and the business is profitable. However, turnover and operating profit growth have not been consistent and the rate of growth has fallen each year between 2000 and 2003. The operating profit margin is remarkably inconsistent except for 1999. Net interest payable represents only a small proportion of turnover.