Section 3
Financial and stock market ratios

INTRODUCTION

In the last section we looked at performance ratios, dealing with profitability and asset turnover. We now turn to two other kinds of ratios, those dealing with financial status (gearing and liquidity) and with share prices (earnings and dividends).

There may often be some conflict between profitability and gearing, that is between return and risk. We briefly discussed this in the last section, and we shall revisit the subject in Section 8.

There may also be differences between profitability and liquidity, that is between profit and cash. We shall be looking further at these, both in Section 5 which covers accrual accounting, and in Section 11 which deals with cash flows.

Performance ratios and financial status ratios are relevant to nearly all kinds of businesses; but stock market ratios (especially those using market prices) apply mainly to public companies whose shares are 'listed' (quoted) and can be traded on a stock exchange.

Stock market ratios focus on the relationships between share prices and earnings and dividends. In one leading company's recent annual report, the chairman started his report to shareholders by noting four criteria 'which are most commonly used to measure company performance':

- rate of growth in earnings per share
- free cash flow before dividends
- dividend cover
- debt and interest cover.

We shall be discussing cash flows in Section 11; this section defines and discusses the other three measures. It was typical of many UK companies that there was no direct mention of the share price itself – which many shareholders might regard as even more important than accounting measures. In contrast, the annual reports of most large US companies have long included figures and charts relating to share prices over a number of past years.

RATIO CALCULATION

In the last section we looked at performance ratios, and we now consider the two other kinds of ratios needed to give an overall assessment of the position of a business – financial status ratios and stock market ratios.

Financial status ratios

Financial status ratios indicate a company's financial position: they distinguish between solvency and liquidity, between long-term and short-term capacity to meet liabilities. The four ratios we shall define and use are:

Debt/Capital employed (%)
Interest cover
Current ratio
Acid test

Stock market ratios

Stock market ratios relate earnings (profits) and dividends to the number of ordinary shares in issue and to stock market prices. The four ratios we shall look at are:

Earnings per share (pence)
Price/earnings ratio
Dividend yield (%)
Dividend cover

PRECISION LOCKS LIMITED

Profit and loss account for the year ended 30 June	2005 £'000	2004 £'000
Turnover (sales)	1 200	1 000
Cost of sales	800	700
Gross profit	400	300
Administrative expenses	238	195
Operating profit	162	105
Loan interest	22	15
Profit before tax	140	90
Tax	50	30
Profit after tax	90	60

Balance sheet at 30 June		2005 £'000		2004 £'000
Fixed assets				
Factory and machinery at cost		350		300
Less: Accumulated depreciation		140		100
		210		200
Current assets				
Stock	350		290	
Debtors	200		150	
Cash	40		60	
	590		500	
Less: **Creditors due within one year** (current liabilities)	250		200	
		340		300
Total assets less current liabilities		550		500
Less: **Creditors due after one year**				
Long-term loan		100		100
Capital and reserves				
Called up £1 share capital	300		300	
Profit and loss account*	150*		100	
		450		400

* Dividend of 40 paid in 2005 (30 in 2004)

FINANCIAL STATUS RATIOS

Ratios of financial status measure a company's ability to meet its liabilities. They can be divided between:

Solvency ratios – dealing with long-term liabilities.
Liquidity ratios – dealing with short-term liabilities.

Please refer again to the 2005 accounts of Precision Locks Limited (opposite, left) and calculate the following financial status ratios. Then turn to the next page, and compare your answers with the ratios shown there.

As you calculate the ratios, consider what they mean and how they contribute to your appraisal of the company's financial status.

SOLVENCY RATIOS			2005	2004
Debt ratio				
$\frac{\text{Debt}}{\text{Capital employed}}$	=	_____	=	20.0%
Interest cover				
$\frac{\text{Profit before interest and tax}}{\text{Loan interest}}$	=	_____	=	7.0 times
LIQUIDITY RATIOS				
Current ratio				
$\frac{\text{Current assets}}{\text{Current liabilities}}$	=	_____	=	2.5 times
Acid test				
$\frac{\text{Liquid assets (debtors + cash)}}{\text{Current liabilities}}$	=	_____	=	1.05 times

SOLVENCY RATIOS

Debt ratio: $\frac{\text{Debt}}{\text{Capital employed}} = \frac{\text{Debt}}{\text{Debt + Equity}} = \frac{100}{550} = 18.2\%$

Debt is 18 per cent of the capital employed, which means (in this simple case) that equity is the other 82 per cent. This relatively low debt ratio ('gearing') gives lenders a fairly high level of safety ('equity cushion').

Another way of measuring the same thing is the 'debt/equity' ratio:

$$\frac{\text{Debt}}{\text{Shareholders' funds}} = \frac{\text{Debt}}{\text{Equity}} = \frac{100}{450} = 22.2\%$$

Both these gearing ratios are common, so it is important not to confuse them.

Bank overdrafts are legally repayable 'on demand', and appear under 'Creditors due within one year'. But both bank overdrafts and any current portions of long-term debt represent negotiated interest-bearing finance. They may best be regarded as part of a company's interest-bearing capital employed. They contrast with 'spontaneous' sources of funds, normally *not* bearing interest, such as trade credit or tax payable. The net debt ratio uses 'debt less cash', in this case 100 – 40 = 60.

Interest cover: $\frac{\text{Profit before interest and tax}}{\text{Interest payable}} = \frac{162}{22} = 7.4 \text{ times}$

The 'interest cover' ratio relates profit before interest and tax (PBIT) to (before-tax) interest, which normally includes both short-term and long-term interest.

Interest receivable, which represents the 'return' on liquid assets, should *not* normally be netted off against interest payable, in calculating interest cover.

This ratio shows the relative safety of loan interest, in the same way that the debt ratio aims to measure the loan capital cover. One ratio derives from the profit and loss account, the other from the balance sheet. Section 8, dealing with capital structure, considers these two ratios from another point of view.

LIQUIDITY RATIOS

Current ratio: $\frac{\text{Current assets}}{\text{Current liabilities}} = \frac{590}{250} = 2.4 \text{ times}$

This ratio indicates to what extent short-term assets are adequate to settle short-term liabilities. ('Current' in accounting implies turning assets into cash, or paying creditors, within twelve months from the balance sheet date.) Should the ratio be less than 1.0, current assets would not fully cover short-term creditors. This would be all right in a company with a strong daily cash flow, such as a retailer. But for a manufacturing company it would suggest looking closely at the acid test ratio (see below), because short-term financial problems might be developing.

A 'normal' current ratio in a manufacturing business might be between 1.5 and 2.0. Too *low* a current ratio may mean liquidity problems, but a current ratio can also be too *high*. Funds tied up in working capital can be costly to finance.

Acid Test: $\frac{\text{Liquid assets (debtors + cash)}}{\text{Current liabilities}} = \frac{240}{250} = 0.96 \text{ times}$

The acid test (sometimes called the 'quick ratio') is a strict test of liquidity. In measuring the resources available to meet current liabilities, it excludes stock which may take several months to turn into cash.

On the other hand, not all creditors need be due within a few months. Thus many companies might fairly safely have an acid test ratio of somewhat less than the 'norm' of 1.0.

A more accurate way to estimate cash sufficiency would be to forecast expected payments and receipts in detail month by month for the near future. A company would normally do this as part of its own cash management; but an external analyst will lack the information needed to complete such a forecast.

Many analysts prefer to treat interest-bearing short-term borrowings as part of 'capital employed' in calculating the debt ratio. We ourselves prefer this approach. But cautious analysts should still treat them as 'short term' for calculating the liquidity ratios. After all, bank overdrafts are usually repayable on demand. (See also page 47.)

STOCK MARKET RATIOS

The following stock market ratios are used extensively in the financial markets in referring to the performance of a company. Please calculate the ratios for 2005, by referring back to the Precision Locks accounts on page 42. Assume that the company's share price was 200p on 30 June 2004, and 360p on 30 June 2005. Then compare your solutions with those shown overleaf.

				2005	2004
Earnings per share					
$\frac{\text{Profit after tax}}{\text{Number of ordinary shares in issue}}$	=		=		20.0p
Price/earnings ratio					
$\frac{\text{Market price per share}}{\text{Earnings per share}}$	=	$\frac{360p}{}$	=	$\frac{200p}{20p}$ = 10.0	
Dividend yield (net)					
$\frac{\text{Dividend per share (net)}}{\text{Market price per share}}$	=	$\frac{}{360p}$	=	$\frac{10p}{200p}$ = 5.0%	
Dividend cover					
$\frac{\text{Earnings per share}}{\text{Dividend per share}}$	=		=		2.0 times

STOCK MARKET RATIOS

Earnings per share: $\dfrac{\text{Profit after tax}}{\text{Number of ordinary shares}} = \dfrac{90}{300} = 30.0\text{p}$

The earnings (= profit) figure here is the same 'profit after tax' figure that we used to calculate return on equity. In more complex cases we should strictly use 'earnings attributable to ordinary shareholders' – this would be after preference dividends (see Section 8) and after 'minority interests' (see Section 9).

The earnings per share figure (EPS) is widely used in measuring changes in profit from year to year. 'Per share' figures relate to the number of ordinary shares *in issue*, not the number *authorized*. (If shares have been issued during a period, use a weighted average [FRS14/IAS33].)

Profit after tax (earnings) figures are often volatile, partly because of the uncertain nature of business and partly for technical accounting reasons. For purposes of investment appraisal, therefore, it is often sensible not to use an earnings per share figure for a single year (either last year or an estimate for the current year). Instead it may be better to take an average of the last three or five past years, to smooth out ups and downs. When doing so, 'bottom line' earnings should normally be used, *after* all 'exceptional' items.

Price/earnings ratio: $\dfrac{\text{Market price per share}}{\text{Earnings per share}} = \dfrac{360\text{p}}{30\text{p}} = 12.0 \text{ times}$

The price/earnings (P/E) 'ratio' is simply a multiple. Thus Precision Locks Limited 'has a P/E ratio of 12.0'.

The market price (MP) of the equity shares does not appear in the published accounts, and it can fluctuate from day to day. The market price takes account of expected *future* profits, whereas the earnings per share figure is based (like the 'return on investment' ratios) on reported *past* profits.

If a company makes a loss, earnings per share will be *negative*. (A loss is simply a negative profit.) But since the shares will still have a positive value in the stock market, the P/E ratio itself will also be negative. So this ratio requires caution!

Dividend yield (net): $\dfrac{\text{Dividend per share}}{\text{Market price per share}} = \dfrac{13.3\text{p}}{360\text{p}} = 3.7\%$

Published accounts disclose dividend per share in the notes, but for Precision Locks we have to calculate it: 40/300 = 13.3p. The dividend per share is shown *net* of tax.

Dividend yield indicates an investor's current income yield in relation to the share's *current* market price. This is unlikely to be the same as the amount *paid* for the shares (the market price on the date the investor bought them).

This ratio deals only with the part of current earnings paid out to shareholders in dividends. (The company 'retains' the rest.) Thus it represents only part of a shareholder's possible total 'return', since it does not include any 'capital gain' arising if the share price goes up.

Dividend cover: $\dfrac{\text{Earnings per share}}{\text{Dividend per share}} = \dfrac{30.0\text{p}}{13.3\text{p}} = 2.25 \text{ times}$

This ratio measures the number of times that the actual dividend could have been paid out of the current year's earnings. The higher the dividend cover, the 'safer' the dividend.

The ratio is sometimes expressed the other way round, as the 'dividend payout ratio':

$$\frac{\text{Dividend per share}}{\text{Earnings per share}} = \frac{13.3\text{p}}{30.0\text{p}} = 44.3\%$$

There are, of course, many other influences on the price of a company's shares in the market besides the dividend yield and dividend cover. As a rule, investors expect some dividends each year. However, shareholders' returns come from dividends *plus* capital gains. If a company can use retained earnings profitably enough, shareholders may be willing to forgo dividends. The share price should then tend to rise, to reflect the internally financed growth.

The four stock market ratios discussed here are linked as follows:

Net Dividend Yield	x	Dividend Cover	=	Net Earnings Yield	=	P/E Reciprocal
$\frac{DPS}{MP}$	x	$\frac{EPS}{DPS}$	=	$\frac{EPS}{MP}$	=	$\frac{1}{P/E\ Ratio}$
3.7%	x	2.25	=	$\frac{30.0}{360}$ = 8.3%	=	$\frac{1}{12.0}$

Summary of results: Precision Locks Limited

Please now enter the figures which you have calculated, in the 2005 column below. Please also enter the 2004 ratios which were set out in the earlier pages; and then summarize briefly the main comments which you think should be made in appraising the 2005 results compared with the previous year.

When you have completed your summary of the ratios, and written out your comments in the space provided below, please turn to the next page, where suggested answers are shown.

		2005	2004
Financial status ratios			
Debt ratio	%		
Interest cover			
Current ratio			
Acid test			
Stock market ratios			
Earnings per share	pence		
Price/earnings ratio			
Dividend yield (net)	%		
Dividend cover			

Comments

DEBT: SHORT-TERM OR LONG-TERM?

In our earlier discussion of financial status ratios (page 44), we suggested including short-term interest-bearing borrowings as 'debt' in computing the debt ratio. At the same time, we calculate the liquidity ratios including short-term borrowings as *current* liabilities. In each case, in judging the soundness of a company's financial position, we want to see the position 'at its worst'.

To show how much difference it can make, let us reconsider the various ratios for Precision Locks Limited on the new assumption that the current liabilities of £250 000 include £100 000 of short-term bank overdraft. (We assume, however, that interest expense already included bank overdraft interest of £12 000.)

The table below summarizes the accounts, treating the bank overdraft as a current liability (left) and as semi-permanent long-term financing (right). We show selected ratios in each case, with an asterisk against the treatment we prefer. We would treat short-term borrowings as part of 'capital employed' – by *excluding* them from current liabilities. Thus we would take Precision Locks Limited's 'net assets' as £650 000.

PRECISION LOCKS LIMITED
Summarized balance sheet 30 June 2005

	£100 000 overdraft shown as	
	Current liability	*Long-term financing*
	£'000	£'000
Fixed assets, net	210	210
Current assets (stock 350)	590	590
Less: Current liabilities	*(250)*	*(150)*
Total assets less current liabilities	550	650
Less: Debt finance	*(100)*	*(200)*
Shareholders' funds	450	450
Selected ratios		
Return on net assets (%)	162/550 = 29.5	**162/650 = 24.9***
Debt ratio (%)	100/550 = 18.2	**200/650 = 30.8***
Current ratio (times)	**590/250 = 2.36***	590/150 = 3.93
Acid test (times)	**240/250 = 0.96***	240/150 = 1.60

* preferred treatment

Summary of results: Precision Locks Limited

	2005	2004
Financial status ratios		
Debt ratio	18.2%	20.0%
Interest cover	7.4 times	7.0 times
Current ratio	2.4 times	2.5 times
Acid test	0.96 times	1.05 times
Stock market ratios		
Earnings per share	30.0p	20.0p
Price/earnings ratio	12.0	10.0
Dividend yield (net)	3.7%	5.0%
Dividend cover	2.25 times	2.0 times

Comments

1 Both debt ratio and interest cover indicate only a moderate level of gearing with no apparent cause for concern.

2 As trading activity grows the company will need more funds. With the acid test ratio just below 1.0 the cash position will have to be watched carefully. There seems to be room for more long-term borrowing if necessary.

3 The ordinary dividend rose by one third, so (with profit up by 50 per cent) the dividend cover and the retained profits both increased.

4 The price/earnings ratio has increased from 10.0 to 12.0, as the market price per share rose from 200p to 360p (up 80 per cent),while earnings per share rose by 50 per cent. But general market trends will have affected the share price, as well as Precision Locks Limited's own results.

SECTION 3 SUMMARY

The previous section looked at performance ratios; this one has considered financial status ratios, which are likely to be relevant to all companies, and stock market ratios, which apply to companies whose shares are listed on a Stock Exchange.

Financial status ratios are of two kinds: long-term solvency ratios (debt ratio and interest cover), and short-term liquidity ratios (current ratio and acid test). If liquidity ratios are too low, a firm may be unable to pay its bills; if they are too high, a firm may not be making a high enough rate of return on investment.

With respect to stock market ratios, dividends represent only part of the *total* return to shareholders, which comprises dividends plus capital gains. Market prices of shares are forward-looking, in contrast with earnings per share figures which normally relate to the past. Hence it may not be easy to interpret the meaning of the 'price/earnings ratio'.

It can make a big difference whether one treats bank overdrafts and current instalments of longer-term debt as current liabilities (hence reducing net working capital) or as long-term liabilities (hence forming part of 'capital employed'). We prefer the former in computing liquidity ratios, the latter in looking at performance. There may be a distinction between a debt that is *legally* repayable 'on demand' and one which in fact is unlikely to clear within twelve months from the balance sheet date.

We have been using a set of accounts for Precision Locks Limited to take an overall look at performance, financial status and stock market standing. Now we must look more closely at how a company *records* transactions to enable it to prepare a set of financial statements at the end of the year. It is to this aspect of accounting that we turn in Section 4.

PROBLEMS

3.1 Definitions

Please write out in the spaces provided below your definitions of the ratios listed. Then compare your definitions with those set out overleaf.

(a) Debt ratio

(b) Earnings per share

(c) Price/earnings ratio

(d) Current ratio

(e) Earnings yield

(f) Dividend yield

(g) Acid test

(h) Interest cover

(i) Capital gain

(j) Dividend cover

3.1 Definitions

(a) **Debt ratio** is usually defined as 'total negotiated interest-bearing borrowings' (that is, long-term plus short-term borrowings) divided by 'capital employed' (that is, debt plus equity). It is prudent to include all short-term borrowings as part of 'debt'. Some analysts prefer to use the debt/equity ratio, that is, total debt (as above) divided by equity (shareholders' funds). Others may use *net* debt (total debt less cash). An acceptable level of debt ratio ('financial risk') depends on perceived business risk, which can vary widely between industries and between companies.

(b) **Earnings per share** (EPS) is profit after tax divided by the number of ordinary shares in issue (weighted if necessary for issues during the year). FRS14/IAS33 requires companies to calculate EPS after any 'exceptional' (non-recurring) items, but some companies also publish another version of EPS excluding such items. ('Diluted' EPS is discussed in Section 8.) The absolute level of EPS is not important (see Section 8); but the rate of growth in EPS is widely used as an important measure of performance.

(c) **Price/earnings ratio** (P/E ratio or 'multiple') is market price per ordinary share divided by earnings per share (EPS) for the most recent year (or an average of a number of recent years). A 'high' P/E ratio may imply either high growth or low risk (or both) expected in future. Or it may simply mean that the most recent year's earnings per share figure was abnormally small.

(d) **Current ratio** is current assets divided by creditors due within one year (current liabilities). Most industries would expect a ratio exceeding 1.0. (But note that in Problem 2.5 The Secret Seven (on page 39) several of the companies had *negative* working capital, which means that current liabilities *exceeded* current assets.) A current ratio exceeding 2.0 times might look rather 'high', implying an unprofitable level of liquidity.

(e) **Earnings yield** is earning per share (EPS) divided by market price per share. Where the ratio is net of tax, as it normally would be, it represents the reciprocal of the price/earnings ratio. Thus where the share price is 'high' (relative to EPS), the earnings yield will be low.

(f) **Dividend yield** is total annual dividends per ordinary share divided by market price per share. This may not represent a shareholder's total return from owning ordinary shares in a company, since it excludes any possible increase in share price ('capital gain'). New companies (needing all the cash they can get) or companies making losses may pay no dividends.

(g) **Acid test** (the 'quick ratio') is liquid assets divided by current liabilities (creditors due within one year). 'Liquid assets' normally means cash plus short-term investments plus debtors, but it excludes long-term debtors (if any) and it excludes stocks (inventories). Industries vary, but an acid test ratio of more than 1.0 would indicate abundant liquidity.

(h) **Interest cover** is profit before interest expense and before tax (PBIT) divided by interest expense. For this purpose, 'interest expense' should *include* any interest capitalized (see Section 7). It is normally more prudent to use gross interest expense, *not* to net off any interest income received. Interest cover above, say, 5.0 times would normally be regarded as fairly 'safe'.

(i) **Capital gain** is the excess of sales proceeds from selling shares (or other assets) over their purchase cost. A shareholder's total 'return' is equal to dividends received plus capital gain (or less capital loss). The total return is likely to vary from year to year as share prices fluctuate.

(j) **Dividend cover** is profit after tax (and after preference dividends and minority interests, if any – see Sections 8 and 9) divided by total net ordinary dividends for the year. This is equivalent to EPS divided by DPS: in other words, the ratio can be computed either in aggregate or on a 'per share' basis. The higher the dividend cover, the 'safer' the dividend.

3.2 James Smith Limited (C): Basic financial status and stock market ratios

Please refer back to the 2004 accounts of James Smith Limited on page 37. You are asked to complete the definition of each ratio and to calculate each ratio set out below. Assume the share price at 30 September 2004 was 450p. Net dividends totalled £90 000. When you have finished, please compare your answers with those overleaf.

	Definition	Ratio
Financial status ratios		
(a) Debt ratio	$= \frac{\text{Debt}}{\text{Debt + Equity}}$	$= \_\_\_\_ = \%$
(b) Interest cover	$= \_\_\_\_\_$	$= \_\_\_\_ =$ times
(c) Current ratio	$= \_\_\_\_\_$	$= \_\_\_\_ =$ times
(d) Acid test	$= \_\_\_\_\_$	$= \_\_\_\_ =$ times
Stock market ratios		
(e) Earnings per share	$= \_\_\_\_\_$	$= \_\_\_\_ =$ pence
(f) Price/earnings ratio	$= \_\_\_\_\_$	$= \_\_\_\_ =$ times
(g) Dividend yield (net)	$= \_\_\_\_\_$	$= \_\_\_\_ = \%$
(h) Dividend cover	$= \_\_\_\_\_$	$= \_\_\_\_ =$ times

3.3 James Smith Limited (D) : short-term borrowing

The balance sheet at 30 September 2004 (set out on page 37) contained 'Creditors due within one year' at £350 000. Suppose this total included short-term borrowing of £80 000. Specifically how, if at all, would this new information affect the calculation in James Smith Limited (C) of:

(a) current ratio
(b) interest cover
(c) debt ratio
(d) acid test
(e) return on net assets.

The solution to this problem is shown overleaf.

3.4 GlaxoSmithKline plc: stock market statistics

On 11 April 2004 the following details appeared in the Pharmaceuticals section of the London share prices statistics of *Business*:

	Mkt. val. £m	Price	2003/4 high	2003/4 low	% Yield	P/E
GlaxoSmithKline	65 755	1108 xd	1299	1060	3.7	14.4

Questions:

1 What was last year's earnings per share?
2 What was the dividend cover?
3 How many 25p ordinary shares were outstanding?
4 How much was last year's profit after tax?

The solution to this problem is shown overleaf.

3.2 James Smith Limited (C)

Solution

	Definition	Ratio
Financial status ratios		
(a) Debt ratio	$= \frac{\text{Debt}}{\text{Debt + Equity}}$	$= \frac{250}{250 + 350} = 41.7\%$
(b) Interest cover	$= \frac{\text{Profit before interest and tax}}{\text{Interest payable}}$	$= \frac{220}{20} = 11.0$ times
(c) Current ratio	$= \frac{\text{Current assets}}{\text{Current liabilities}}$	$= \frac{550}{350} = 1.57$ times
(d) Acid test	$= \frac{\text{Liquid assets}}{\text{Current liabilities}}$	$= \frac{200 + 50}{350} = 0.71$ times
Stock market ratios		
(e) Earnings per share	$= \frac{\text{Profit after tax}}{\text{No. of ordinary shares in issue}}$	$= \frac{140}{(200 \times 2)} = 35.0$ pence
(f) Price/earnings ratio	$= \frac{\text{Market price}}{\text{Earnings per share}}$	$= \frac{450}{35.0} = 12.9$ times
(g) Dividend yield (net)	$= \frac{\text{Dividend per share (net)}}{\text{Market price}}$	$= \frac{(90 \div 400)}{450} = 5.0\%$ (net)
(h) Dividend cover	$= \frac{\text{Earnings per share}}{\text{Dividend per share}}$	$= \frac{35.0}{22.5} = 1.56$ times

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3.3 James Smith Limited (D)

Solution

(a) Current ratio. Unchanged.
(b) Interest cover. Unchanged.
(c) Debt ratio. Up from 250/600 (= 41.7%) to 330/680 (= 48.5%).
(d) Acid test. Unchanged.
(e) Return on net assets. Down from 220/600 (= 36.7%) to 220/680 (= 32.4%).

3.4 GlaxoSmithKline plc

Solution

1 Earnings per share: 1108/14.4 = 76.9p. (Actual: 77.2p)
2 Dividend per share: 1108 x 3.7% = 41.0p DPS (Actual: 41.0p)
Hence dividend cover: EPS/DPS = 76.9/41.0 = 1.88 times. (Actual: 1.89)
3 25p shares outstanding: 65 755/1108 = 5 934.6 million. (Actual: 5 949 million)
4 Profit after tax: 76.9p x 65 755 million = £4 564 million. (Actual: £4 484 million)

Note: It is not unusual to find the 'calculated' answers slightly different from the 'actual' statistics. There may be complications in calculating earnings per share and more shares may have been issued since the most recent year-end.

3.5 Tarrant and Fisher plc: financial and stock market ratios

A simplified summary of Tarrant and Fisher plc's group balance sheet at 31 March 2005 is set out below:

		£m
Fixed assets		530
Current assets (inc. 60 cash)	320	
Less: Current liabilities (inc. 20 ST debt)	(240)	80
Total assets less current liabilities		610
Less: Long-term debt		260
Capital and reserves:		
Called up 10p shares	7	
Reserves	343	
		350

Notes:
1 Profit after tax was £28 million.
2 Dividend cover was 1.25 times.

Questions
1 What is the debt ratio:
   (a) based on debt/capital employed?
   (b) based on debt/equity?
   (c) based on *net* debt/capital employed?

2 What is the earnings per share?

3 If the share price is £12:
   (a) what is the dividend yield?
   (b) what is the price/earnings ratio?
   (c) what is the market value of the equity?

4 What is the current ratio?

The solution to this problem is shown overleaf.

3.6 Cochran & Company plc: financial and stock market ratios

A simplified summary of Cochran & Company plc's group balance sheet at 30 June 2005 is set out below:

		£ million
Total assets		**436**
Current liabilities		
Short-term borrowings	59	
Other creditors	93	152
Creditors due after one year		
Borrowings	67	
Other creditors and provisions	27	94
Shareholders' funds		
Called up 25p shares	12	
Other reserves	66	
Retained profits	112	190
		436

Questions
1 What is the debt ratio?
2 If the profit after tax was £25 million, what was the earnings per share?
3 If the dividend cover was 2.1 times, what was the dividend per share?
4 If the dividend yield was 3.0 per cent, what was:
   (a) the market price per share?
   (b) the price/earnings ratio?
   (c) market value of the equity?

The solution to this problem is shown overleaf.

3.7 Worldchem plc (B): financial and stock market ratios

Please refer back to the 2005 accounts of Worldchem plc with comparative figures for 2004 (which were set out on page 38).

You are asked, on a separate sheet of paper, to calculate the financial status ratios and the stock market ratios for the two years ended 31 March 2005. Use 142p and 136p respectively as the market price per 25p ordinary share for 2004 and 2005.

After calculating the ratios, please compare the detailed results for 2005 with those for the previous year. *Write down* any appropriate comments on a separate sheet of paper.

When you have completed your answer, please compare it with the solution shown at the back of the book.

3.5 Tarrant and Fisher plc

Solution

1 Debt ratio:
(a) debt/capital employed: 280/630 = 44.4%
(b) debt/equity: 280/350 = 80.0%
(c) net debt/capital employed 220/570 = 38.6%

2 Earnings per share: 28/70 = 40.0p

3 Dividend per share: 40/1.25 = 32.0p
(a) Hence dividend yield: 32/1200 = 2.7%
(b) Price/earnings ratio: 1200/40 = 30 times
(c) Market value of equity: 12 x 70 = £840 million

4 Current ratio: 320/240 = 1.33 times

3.6 Cochran & Company plc

Solution

1 Debt ratio: (67 + 59) / (190 + 94 + 59) = 126/343 = 36.7%

2 Earnings per share: 25 / (12 x 4) = 52.1p

3 Dividend per share: 52.1p / 2.1 = 24.8p

4 (a) Market price per share: 24.8 x 100/3.0 = 827p
(b) Price/earnings ratio: 827/52.1 = 15.9 times
(c) Market value of equity: (12 x 4) x 827p = £397 million

No answers are published to the following questions.

3.8 Hamilton Pumps Limited (B) : financial status and stock market ratios

Please refer back to the 2004 accounts of Hamilton Pumps Limited, with comparative figures for the previous year (which were set out on page 40).

You are asked to calculate, on a separate sheet of paper, the financial status ratios and the stock market ratios for the two years ended 31 December 2004. The market price per share at the end of 2003 was 150p, and at the end of 2004 it was 50p.

After calculating the ratios, please compare the detailed results for 2004 with those for the previous year. Write down, on a separate sheet of paper, any appropriate comments. Please also identify any questions about these ratios that you would wish to ask the company's senior management.

3.9 Liquid miscellany

Under what circumstances might:

(a) Some of Company A's stocks be *less* liquid than Company B's fixed assets?
(b) Some of Company C's stocks be *more* liquid than Company D's debtors?
(c) Company E's debt ratio indicate *high* borrowing, while the same company's interest cover indicates *low* borrowing?
(d) Company F's debt ratio indicate *low* borrowing, while the same company's interest cover indicates *high* borrowing?

3.10 What's going on?

(a) Why might a group with total assets on the balance sheet of £24 billion show cash and liquid investments of £3.5 billion at the same time as having total borrowings of £5.0 billion (including short-term borrowings of £1.5 billion)?
(b) Why might a company's market capitalization exceed the book value of shareholders' funds?
(c) Why might a perfectly sound company have an acid test ratio of only 0.25?