

6

How the Stock Market Assesses Company Performance

Learning objectives

After studying this chapter you should be able to:

- ◆ Discuss various factors that influence share prices
- ◆ Understand the main information shown by the *Financial Times London Share Service*
- ◆ Calculate and interpret P/E ratios, dividend yield and dividend cover
- ◆ Explain why cash flows may influence share prices
- ◆ Understand the relationship between share prices and balance sheet values
- ◆ Critically assess the possible influence of a variety of other factors on share prices.

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Introduction

The performance of companies' shares on the stock market is part of our everyday news agenda, but it is difficult to be sure about what really influences share prices, and why it is important. Share prices are determined by supply and demand for a company's shares; this in turn is influenced by a number of factors, and the information revealed in financial accounts is perhaps the most important. It is easy to see which companies are doing well, but by the time this is obvious, their shares are usually already quite expensive. Similarly, by the time a company's performance is obviously poor, the share price has already fallen. Unfortunately this chapter cannot teach you how to 'beat the market'; but it does a lot to explain what happens.

6.1 Investing in Shares

When we talk about investing in shares we usually mean buying shares that are listed on the London Stock Exchange, or other leading international stock markets. There are many thousands of private companies in the UK, most of them very small, typically with only about two shareholders; their shares are not available on any stock market. There are also many public companies, some quite large, which are also not listed on stock markets. You may be invited by friends or family to buy shares in an unlisted company; you may set up your own company; you may inherit some shares. But unless the company is a listed one, buying and selling the shares is usually difficult because there is no ready market.

The shares in listed companies are bought and sold frequently, sometimes every few minutes or seconds, on the stock market, and it is easy to buy and sell them. If you want to buy or sell shares in listed companies you need to have a stock broker; or you could ask your bank to act for you; or you could register with a stockbroker who arranges for you to deal directly on the internet. In the bull¹ market of the 1990s many private individuals became 'day traders', buying and selling shares on the same day, and making more profit than they could earn by working for a living. It is not difficult to make profits when share prices are rising.

Companies do not buy and sell shares themselves. If you go to Marks and Spencer, or to Boots and ask to buy some shares, you will be referred elsewhere. Shares are, in effect, bought and sold by investors (companies, institutions and individuals), via an established stock market. The price or current value of the shares is not calculated, or determined by the company

¹ A bull market is a rising market; a bear market is a falling market.



or individual. It constantly changes as a result of supply and demand for a particular company's shares. If demand for a share is very high, the price will be marked up; this will encourage some investors to sell their shares so that others can buy. When the price goes up too high, demand for the company's shares will slacken, and an equilibrium is reached. If a company's shares are not in demand, the price will fall until some investors decide that the shares have become good value.

Sometimes there are exaggerated short-term effects on share prices. If there is a rumour that there will soon be a takeover bid for a particular company, demand for those shares might increase rapidly until the situation is resolved. When a company has some bad news, or there is bad news from comparable companies, there might be a sudden, exaggerated decrease in the share price which may prove to be only temporary.

6.2 What Influences Share Prices?

Many different factors influence share prices. Some have nothing directly to do with the company itself but are more to do with general sentiments about investing and the economy. Such factors include expectations about interest rates, growth or recession in the economy, and exchange rates. To some extent stock markets in different countries move in line with each other, and it often seems that the UK stock market follows the USA.

The most widely used measure of share price performance is the FTSE 100 ('Footsie'). This is the Financial Times index of the share prices of the hundred largest companies, based on their market capitalization. The FTSE 250 covers the next 250 largest companies and the FTSE All Share is the index for all listed companies. The constituent companies of the index change slightly on a regular basis as the value of their shares change. During the 1990s there were substantial increases in share prices and the index reached an all time high on the last trading day of the century. The first 3 years of this century saw falls in share prices generally, but, at the time of writing, there were signs of recovery with the FTSE 100 reaching around 4300 in September 2003.

The FTSE 100 is widely used, and some 'tracker' investment funds simply buy shares in the companies that make up the index; and the performance of these funds is often better than funds where the managers use their own expertise to select the best investments. Inclusion, or non-inclusion in the index can affect a company's share price. It may be partly a matter of prestige and status. It is also a result of increased demand for shares that are going into the index; the managers of tracker funds have to buy them. And when companies are about to be removed from the index (because of a relative fall in their market capitalization), the share price is hit by the need for tracker funds to sell those shares.



A company's share price is also influenced by what is happening to other companies in the same sector. When one retailer reports relatively poor results, the share prices of many retailers may suffer too because it is anticipated that their results will also be poor. It also seems that sectors go in and out of favour.

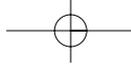
Other factors influencing a company's share price are more directly to do with the company itself. Fundamentals of solvency and profitability are important, and so is growth. The (perceived) quality of management can also affect share prices. When a company has been through a bad time, chief executives often lose credibility, and their jobs. When new chief executives are appointed they, and the company's share price, often enjoy a honeymoon period while the market awaits the delivery of improved results.

Share prices are also influenced by the reputation of the company, by actual or rumoured takeover bids, and by all sorts of rumours, scandal and gossip.

There may be individuals who really understand how the various factors operate. If such individuals exist, they are likely to keep their advice to themselves, and to act on it, and to become extremely rich. When you read advice from investment analysts, bankers and other 'professionals' you may be tempted to believe them. But you might also wonder why they are giving you this advice, or selling it to you so cheaply. Why do they not simply take their own advice and make more money that way? There are a number of possible explanations for this:

- 1** Investment analysts are fair-minded individuals, solely interested in pursuing the truth, with no interest in making money for themselves, and with more interest in helping others to make money
- 2** They do not really know. Like journalists, they are just writing for a living and putting out any credible stories for which they get paid
- 3** For some reason they want you to follow their advice and buy and sell shares when they suggest that you should

There are infamous tales of financial journalists who offered share tips to readers. They would choose a company with a credible story about its future prospects; then they would buy themselves a few thousand shares at the current price, say £1 each. Then they would recommend readers of the Daily Whatsit to buy the shares at £1 each. Once such a recommendation is published (unless it is total rubbish) the share price is likely to go up immediately – even prior to publication. By the time the poor readers of the Daily Whatsit get their shares, the price has gone up to, say, £1.10, and they are likely to stay at this increased level for at least a few days. The journalists then sell their shares at, say, £1.10, having made a nice little profit. They can



then boast to readers that the share price increased, as they predicted it would.

If such journalists write for a minor newspaper, and few people act on their advice, there is likely to be no effect on share prices. If they write for a major daily newspaper it might be different. If we are talking about a major investment bank, or the chief executive of the company concerned, what they say, and what is reported in the financial press, may have a significant effect on share prices.

At any one time there are likely to be hundreds or thousands of theories around about which shares are going to do particularly well in the future. And, of course, some of those theories will prove to be correct, while most will be quietly forgotten.

Most investors want to buy shares when they are cheap, and sell them when they are expensive. If you think that the true value of a particular share is £2.00, and you can buy it for £1.80, you are doing well. If you still think it is worth £2.00 and you can sell it for £2.20, you are doing better still. The problem is determining what a share is really worth.

Unfortunately there is no 'true value' with which the market price of shares can be compared. It does not mean much to say that a share with a market value of £2.50 is cheaper than a share with a market value of £3.00. We can, however, say that a share price is expensive or cheap in relation to key information such as the amount of earnings, or dividends, or net assets per share.

6.3 Accounting Information and Share Prices

Investors and investment analysts make their investment decisions and recommendations using financial accounting information – and whatever other relevant and/or credible information they are able to find. Share prices reflect the information that is available to investors, and financial accounting information is central to this. Share prices may be influenced by any information that a company discloses, but the most important figures are probably:

- 1 The profits earned by a company
- 2 The dividends paid out by the company
- 3 The net asset (or balance sheet) value of the company
- 4 The cash flows generated by the company.

Each of these can be related to the most recent share price which gives an indication of whether a share is 'expensive' or 'cheap' in relation to that



information. Investors are guided by the most recent figures for each of these; predictions are also sometimes available, which is what investors really need; but predictions have varying degrees of credibility, and should be compared with the actual results when they become available.

Profits

From the shareholder's point of view, the most relevant profit is the amount that was earned for them in the most recent financial year. It is the figure after all expenses, including interest and any exceptional items, have been deducted, and after charging taxation for the year. It usually has a straightforward label such as 'profit for the financial year', and that is the amount that has been earned for the shareholders during the year. Some of it is paid out as dividends; the rest remains in the business and is called retained profit for the year.

If there are preference shareholders, then part of the profit earned for the year belongs to them; preference dividends have to be deducted from profits for the year to arrive at the amount earned for ordinary shareholders.

There is a relationship between the value of a company, and the amount of profits that the company earns. If a company earns £1 million a year, the company might be worth, say, £10 million or £15 million. The relationship is called the 'Price²/Earnings Ratio', which, in this example, would be 10 or 15. It can be calculated by relating the company's *total* earnings for the year to the *total* market value for all of its shares.³ Alternatively, it can be calculated by relating the earnings *per share* to the market price *per share*.

Dividends

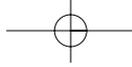
Some shareholders may be more interested in the dividends that a company actually pays out than in how much profit the company makes. If a shareholder needs the income, profits are all very well, but it is the cash dividend that the shareholder actually receives that helps to pay the bills.

Companies usually declare dividends in pence per share, perhaps 4 pence per share. This means that the shareholders receive 4 pence dividend for each share that they own. The amount varies from year to year, and companies usually try to increase it a little each year.

A company usually pays a dividend twice a year: an 'interim' dividend, and a 'final' dividend. The shareholders are most interested in the total amount for the year.

² The 'price' is the price of one share: in this example it is worth 10 or 15 times the amount of profits earned per share.

³ The total market value of all of the shares is called the **market capitalization**.



There is a relationship between the value of a company's shares, and the amount of dividend paid. If a company pays a dividend of 4 pence per share, and each share is worth, say, £1.00, then the 'dividend yield' is 4 per cent. If the share was worth £2.00, the dividend yield would be 2 per cent. The same dividend yield figure would be produced if the company's total dividends for the year are expressed as a percentage of the company's market capitalization.

There is also an important relationship between the amount of profits a company earns, and the amount that they choose to pay out as a dividend. If a company pays out a lot less than half of its profits as dividends, then the dividend looks reasonably secure: the dividend is well covered by profits. If a company pays out nearly all of its profits as dividends, then the dividend looks less secure. Analysts divide the profit by the dividend and say, for example, that the dividend is covered 1.6 times by profits. If a company earned £100 million profits, and paid out £62.5 million as dividends, then the dividend is covered 1.6⁴ times by profits.

'Dividend cover'⁵ can be calculated using earnings and dividend figures for the company as a whole, or on a per share basis.

Net Asset (or Balance Sheet) Value

A company's balance sheet clearly shows the amount for 'Equity shareholders' funds' (which is the same as the amount for 'Net assets').⁶ But the total value of the company's shares on the stock market is likely to be very different from what the balance sheet shows. Share prices result from the interplay of supply and demand for shares, rather than the result of recording financial transactions within the business. If a company's prospects are seen to be very good, there is a strong demand for the shares, and the share price tends to increase. Generally, with a successful company, the market price of the shares is much higher than the net asset value per share (based on balance sheet values).

Cash Flows

Many analysts do not rely on profit information alone, but also analyse the company's cash flow statement, and are likely to have more confidence in a company that has healthy cash flows.

⁴ £62.5m × 1.6 = £100m

⁵ Dividend cover should not be confused with interest cover.

⁶ Where there are preference shares, the amount of preference shares should be deducted from the total of shareholders' funds to give ordinary shareholders' funds, or equity.



6.4 The Financial Times

The *Financial Times* shows key figures and ratios in respect of each listed company on the London⁷ Stock Exchange, on a daily basis. On Tuesdays to Saturdays the P/E ratio and the dividend yield is shown for each company together with the following additional information shown (see Illustration 6.1):

Illustration 6.1

Company	Closing price on previous day (pence)	Change in pence since previous day	52 week high	52 week low	Yield %	P/E	Volume 000s
Marks & Spencer	315	+6	384	258	3.3	15.2	17,440
United Utilities	467	-1	563	449	9.2	10.4	4,893

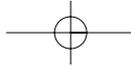
On the day that these figures were published⁸ the average yield for the FTSE 100 companies was 3.34 per cent, and the average P/E ratio was 17.4.

- (i) Name of company, usually abbreviated
- (ii) Various notes. The most useful is the ♣ symbol which indicates that the *Financial Times* will supply a copy of the company's annual report and accounts if you telephone 020 8391 6000. If the ♣ symbol is not shown, the annual report and accounts can be obtained by contacting the company directly
- (iii) Share price at close of business on the previous day (closing mid price⁹)
- (iv) Amount by which the share price changed during the previous day
- (v) The highest the share price has been during the previous 52 weeks
- (vi) The lowest the share price has been during the previous 52 weeks
- (vii) Yield: the latest known dividend per share expressed as a percentage of the share price
- (viii) P/E: the price/earnings ratio: expresses the relationship between the share price and the latest known profit, or earnings, per share.
- (ix) Volume. The number of shares traded in thousands

⁷ Comparable information is shown on preceding pages for many other shares and markets in the world.

⁸ 16th September 2003.

⁹ There is always a 'spread' between the buying price and selling price: the mid point is shown.



On Mondays, as there was no previous day's trading, the *Financial Times* shows different information as follows, and as shown in Illustration 6.2

- (i) Name of company, as above
- (ii) Various notes, as above
- (iii) Price, at the close of business on the previous Friday
- (iv) The percentage change in the share price during the previous week
- (v) The amount of the last known annual dividend, expressed in pence per share

Illustration 6.2

Company	Closing price on Friday	% Change during last week	Dividend in pence per share	Dividend cover	Market capitalization £million	Date when share last became ex-dividend	City line telephone
GUS	721	5.4	23.3	2.0	7,275	9.7	2740
Sainsbury	273	-1.0	15.58	1.4	5,289	28.5	3904

First, the percentage by which a share price changed during the whole of the previous week is shown. In the above week, GUS shares increased by 5.4 per cent while Sainsbury's shares went down in price by 1 per cent.

The amount of the previous year's dividend is then shown, in pence. The amount of dividend does not mean much by itself. On other days the dividend is shown in relation to the share price to give a dividend yield.

The company's dividend cover is then shown, which can give some indication about the prospects for future dividend increases. The dividend of GUS is covered twice by profits which makes it look more secure than Sainsbury's.

The market capitalization is a measure of the size of a company. It is the current share price multiplied by the number of shares in issue.

When a company declares a dividend it is payable to all who own the shares on a particular date. Anyone buying the shares after that date will not receive the company's most recent proposed dividend. If the dividend is, say, 20 pence per share, we can expect the share price to drop by 20 pence on the day that it becomes ex-dividend. It is important to know the date that a share becomes ex-dividend (and the amount of the dividend), if we are to make sense of share price movements.

The city line telephone number is a service provided by the *Financial Times*. For up to the second share prices anyone can call 0906 003, or 0906 843 followed by the four digit code provided for each company.



- (vi) The dividend cover: earnings per share divided by dividend per share¹⁰
- (vii) Market capitalization: the share price multiplied by the number of shares that the company has in issue
- (viii) The date when the share became 'ex dividend'. The most recent dividend was payable to whoever owned the shares on the day before the 'xd' date. If the dividend is 4 pence per share, we might expect the share price to fall by about 4 pence on the 'xd' date, because whoever owns the share on that date will not receive the 4 pence dividend, and will probably have to wait 6 months before another dividend is due.
- (ix) City line. This is a four digit telephone number which gives live, up-to-the-second share prices, if you dial 0906 003, or 0906 843, followed by the four digit number. Normal trading hours are 8.00 a.m. to 4.30 p.m.

For information about net asset values and cash flows it is necessary to look at the annual report and accounts; alternatively information produced by investment analysts and in the financial press can be examined.

6.5 Price/Earnings Ratios

Calculating the Price/Earnings Ratio

The 'P/E' ratio is perhaps the most widely used stock market indicator. It shows clearly the relationship between the last known earnings per share figure and the most recent share price. The calculation, for two companies, may be illustrated as shown in Illustration 6.3.

What the P/E Ratio Can Tell Us

In the above example, Cronky plc has a P/E ratio of 10. If we pay £2.00 for a share, and the company earns 20 pence per share each year, the share will have paid for itself¹¹ in ten years. That seems rather a long time for an investment to pay for itself. But the position with Voddy plc is even worse – it would take 20 years. These figures are not unusual. At the time of writing

10 Or, if you prefer, the total profits earned for ordinary shareholders, divided by the total dividends payable to ordinary shareholders. It should give the same answer whether the calculation is done for the company as a whole, or on the basis of the amount of profits and dividends per share.

11 In terms of profit that the company earns, not in terms of dividends that the company pays out.

**Illustration 6.3**

	<u>Cronky plc</u>	<u>Voddy plc</u>
(a) Number of ordinary shares	1,000,000	1,000,000
(b) Current share price	£2.00	£3.20
(c) Market capitalization (a × b)	£2,000,000	£3,200,000
(d) Total profits after taxation attributable to ordinary shareholders	£200,000	£160,000
(e) P/E ratio (c ÷ d)	10	20
(f) Earnings per share (d ÷ a)	£0.20	£0.16
(g) P/E ratio (b ÷ f)	10	20

the average P/E ratio on the London Stock Market was about 16. This could mean that most shares are hopelessly overpriced, that they still have a long way to fall, and an average P/E ratio of around 10 is more sustainable. It is more likely to mean that investors expect earnings per share to increase significantly in the coming years. The share price looks high in relation to current earnings, but (hopefully) not in relation to future earnings.

If share prices seem high it is because demand for them is high; and if demand is high it is usually because investors are optimistic about the future prospects of the company. Investors in Voddy plc do not assume that the earnings per share will remain at 16 pence for the next 20 years: they expect – or demand – *growth* in earnings per share.

If earnings grow at a constant rate of 10 per cent per annum, they will double in less than 8 years. If they grow at 15 per cent per annum, they will double in just less than 5 years. Not many companies manage to maintain such rates of growth in earnings, but they may be needed to justify high share prices, that is, to justify high P/E ratios. We can assume that, generally, a high P/E ratio means that investors are expecting high rates of growth, although they may, of course, be disappointed. In the late 1990s many share prices were very high, with high P/E ratios, particularly Technology, Media and Telecommunications, together with Computing, and anything vaguely connected with the 'dot com' bubble. But most companies failed to deliver the rapid growth in earnings that was needed to justify the high P/E ratios, and many high share prices crashed. In the 1990s



many investors jumped on the bandwagon of high P/E ratios, only to be disappointed. In 2003 more modest P/E ratios, and more realistic expectations of growth were the order of the day.

We can get a feel for P/E ratios by looking at the back pages of the *Financial Times*. It gives the average for the London Stock Market as a whole, the average for the top 100 companies (the FTSE 100), and the average for about 35 different sectors. At the time of writing the average P/E ratio for the FTSE 100 was 17. Sectors with high P/Es included Telecommunications, and Health. Sectors with low P/Es included Mining, and Construction.

We can generalize that high P/E ratios are associated with expectations of high rates of growth. If the average P/E is 16, then any company with a P/E of much more than 20 is expected to deliver high rates of growth if investors are not to be disappointed. A company with a P/E of less than about 9 is not expected to produce so much growth in earnings per share.

Most companies have a P/E of between about 9 and 25. But care is needed in interpreting these, especially if the P/E is unusually high or low. The P/E ratio of a number of water companies is shown in Illustration 6.4; they fall within the normal range.

The fact that investors seem to expect more growth from Dee Valley, and from East Surrey *could* mean that Dee Valley has a brilliant record in increasing profits every year. It is, however, more likely to mean that last year's profits were so awful that they are bound to be a lot better this year!

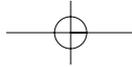
The fact that AWG and United Utilities have much lower share prices (in relation to last year's earnings) means that investors' expectations of growth from those two companies is more modest. The fall in the P/E ratio of United Utilities between the two dates on which it is quoted in this chapter was due to a fall in their share price following an announcement that they were going to make a substantial rights issue.¹²

Illustration 6.4

P/E ratios of selected water companies

AWG	11.7
Dee Valley	22.0
East Surrey	18.3
United Utilities	12.2

¹² Existing shareholders are invited to buy additional shares because of the company's capital needs, ostensibly at a favourable price. The market often reacts badly when a company seeks substantial additional sums from shareholders.



Sometimes P/E ratios are abnormally high – so high as to be meaningless. The *Financial Times* does not publish P/E ratios that are higher than 80. In Illustration 6.5 Sudndip plc had four very successful years. Profit increased each year by more than 10 per cent, and at an increasing rate. This raised expectations, and the P/E ratio went up from 12 to 18 during the period. Then, in Year 5, earnings collapsed; earnings per share are minute. We could be fairly sure that the share price would collapse too. Maybe it would go down to £1.00 or even to £0.80. But with a tiny earnings per share figure, even at £0.80 the P/E ratio would still be 160, which is so far out of the normal range as to be misleading. It still means that the share price is very high in relation to the latest earnings per share; but the explanation is more to do with exceptionally low earnings than it is to do with a high share price.

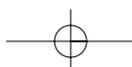
The drop in earnings shown in Illustration 6.5 is rather extreme, but it is often the case that a high P/E ratio signifies that the previous year's earnings were unusually low, and better results are expected soon. Many hotel companies suffered a loss of business in 2003 (partly due to the SARS epidemic and the Iraq war), but their P/E ratios stayed fairly high: the shares were expensive in relation to last year's earnings, but not in relation to anticipated earnings.

Although Financial Reporting Standards and International Accounting Standards lay down clear rules on how earnings per share should be calculated, it is not always clear which earnings per share figures have been used in calculating the P/E ratio, particularly in the financial press. Unusual P/E ratios are often the result of unusual earnings figures – such as exceptional profits or losses on the sale of a subsidiary, or write offs of goodwill. Companies often produce two different earnings per share figures, choosing to exclude particular items for one of them. In the financial press use is sometimes made of P/E ratios based on future forecast earnings; these are sometimes called prospective or forward P/E ratios.

Illustration 6.5

Sudndip plc has 10 million ordinary shares in issue. Their total profits after tax, earnings per share are shown below. The share price and P/E ratio shortly after the results were published are also shown.

	Year 1	Year 2	Year 3	Year 4	Year 5
Net profit after tax	£1 million	£1.1 million	£1.25 million	£1.45 million	£50,000
Earnings per share	£0.10	£0.11	£0.125	£0.145	£0.005
Share price	£1.20	£1.43	£1.87½	£2.61	
P/E ratio	12	13	15	18	



6.6 Dividend Yield

Calculating the Dividend Yield

The dividend yield is another widely used stock market indicator. It shows clearly the relationship between the last known amount of annual dividend, and the most recent share price. It can be calculated on a 'per share' basis, by dividing the most recent annual dividend by the most recent share price.¹³ Alternatively it can be calculated for the company as a whole, by dividing the company's total dividends payable for the most recent year¹⁴ by its 'market capitalization' (the most recent share price multiplied by the number of shares that the company has in issue).¹⁵

The calculation, for two companies, is shown in Illustration 6.6.

In this example, Cronky has a significantly higher dividend yield than Voddy, but care is needed in interpreting this. It does not mean that Cronky's dividends are higher than Voddy's; both companies are paying the same dividend per share, that is, 10 pence. Cronky's higher dividend yield means that it has a lower share price than Voddy. A high dividend yield means that the share price is low (in relation to dividends); a low dividend yield means that the share price is high in relation to dividends.

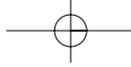
Illustration 6.6

	<u>Cronky plc</u>	<u>Voddy plc</u>
(a) Number of ordinary shares	1,000,000	1,000,000
(b) Current share price	£2.00	£3.20
(c) Market capitalization (a × b)	£2,000,000	£3,200,000
(d) Total ordinary dividends	£100,000	£100,000
(e) Dividend yield (d ÷ c × 100)	5%	3.1%
(f) Dividend per share (d ÷ a)	£0.10	£0.10
(g) Dividend yield (f ÷ b × 100)	5%	3.1%

13 And multiplying by 100 to express it as a percentage.

14 After deducting any preference dividends.

15 And multiplying by 100 to express it as a percentage.



What the Dividend Yield Can Tell Us

In the 1990s, little attention was given to low dividend yields. The average dividend yield on shares was only around 2 per cent at a time when it was possible to get 5 per cent or more from a bank or building society deposit account. Dividend yields looked very low, partly because share prices were very high. Although interest rates can vary, there is no 'growth' in the amount of interest paid on deposit accounts. But the hope and expectation is that dividends will increase, year after year, and in the majority of companies they still do. If someone invests £100 in shares, and the only dividend they get is £2.00, that looks miserable. But the following year it might be £2.15, then £2.35 the next year, then £2.55; and, after a number of years (hopefully before the investor retires!) the dividend might look very respectable in relation to the original £100 invested, with every prospect that it will continue to increase, at least in line with inflation. With a successful investment, the share price also increases, which means that the dividend yield still looks low: it is the *amount* of dividend which increases each year, not the dividend yield.

It was 'normal'¹⁶ for the average yield on shares to be lower than interest rates on deposit accounts, because investors expect there to be growth in dividends on ordinary shares. But in recent years interest rates on deposit accounts have steadily fallen; and, in the last two years, as share prices have fallen, dividend¹⁷ yields have increased. Shares on average were yielding nearly 4 per cent in 2002–03; but as share prices rose in mid 2003, the average yield fell to about 3.3 per cent which is comparable with what can be obtained from a deposit account at a bank.

Low dividend yields are mainly the result of high share prices, and low dividend yields go hand in hand with high P/E ratios. Shares that are expected to deliver rapid and sustained growth have high prices, and therefore high P/E ratios, and therefore low dividend yields. But many of the growth portfolios of the 1990s did not deliver, and share prices collapsed as the twentieth century ended.

In the early years of this century investors' faith¹⁸ in growth stocks steadily evaporated, and there has been more focus on shares that represent real value: low P/E ratios, and higher dividend yields.

16 Though normality steadily changes. At the time of writing the fashion for institutional investors is to buy corporate bonds because they have relatively high yields, with reasonable security. But as these bonds become more popular, so their price will increase, and their yield will fall. And a few more big collapses (Enron, WorldCom, Marconi, Telewest, Energis) may soon show this 'profitable' strategy to be just as dubious a bubble as previous ones.

17 Dividends have not generally fallen; share prices have fallen.

18 Stocks or shares – much the same thing.



It might be a rational strategy for investors to choose companies with high dividend yields, provided they can be sure that the dividends will continue to be high. We do not know what future dividends will be. For a time in 2002/03 Abbey National had a high dividend yield (10 per cent), but there was no guarantee that this level of dividend would continue. The dividend yield looked high in relation to the previous year's dividend, partly because the share price had collapsed,¹⁹ and it rumoured that the following year's dividend would be reduced.

At present, interest rates are low: it is difficult to get more than about 3.5 per cent from a deposit account. Although the average yield on shares is only 3.3 per cent, there are plenty of shares with yields higher than 4 per cent which look reasonably sound, and have prospects of steadily increasing dividends. But yields of more than about 6 per cent may be suspicious: the share price is low in part because investors think that there may be problems with future dividends. Many individual and institutional investors are attracted to 'good value' shares with a reasonable dividend yield. It is possible to get some guidance on how sound such an investment might be by looking at the company's record over a number of years (profits and dividends), and by looking at their cash flow statements.

6.7 Dividend Cover

The easiest and most widely used indicator of how likely it is that a company's dividend will be maintained and increased is 'dividend cover'. This is the relationship between profits and dividends. If a company pays out only a small proportion of its profits as dividends, then the dividend looks reasonably secure: even if profits fall in the following year, there should still be more than enough to pay the dividend.

Dividend cover is calculated by dividing earnings per share by dividend per share. It can also be calculated by dividing the total profits attributable to ordinary shareholders by the total amount of ordinary dividends payable for the year.

The calculations for Cronky plc and Voddy plc are shown in Illustration 6.7.

On this basis, Cronky's dividend looks more secure than Voddy's. We must expect profits to fluctuate from time to time. Cronky can afford a bigger percentage reduction in profits before the dividend looks threatened

¹⁹ The P/E ratio was down to 4.6, one of the lowest on the stock market. Investors were really pessimistic about the company's growth prospects.

**Illustration 6.7**

	<u>Cronky plc</u>	<u>Voddy plc</u>
(a) Total profits after taxation attributable to ordinary shareholders	£200,000	£160,000
(b) Total ordinary dividends	£100,000	£100,000
(c) Dividend cover (a ÷ b)	2 times	1.6 times
(d) Earnings per share	£0.20	£0.16
(e) Dividend per share	£0.10	£0.10
(f) Dividend cover (d ÷ e)	2 times	1.6 times

than Voddy. If each company suffered a 40 per cent reduction in profits, the earnings per share would be:

	<u>Cronky plc</u>	<u>Voddy plc</u>
Earnings per share	£0.12	£0.096

If each company continued with a 10 pence per share dividend, the dividend cover would be:

Dividend cover	1.2 times	0.96
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Although it is acceptable for a company to pay out more in dividends than it earns in profits from time to time, perhaps when there is an unusually bad year, clearly this cannot continue for very long. A dividend that is not well covered by profits looks insecure. The average company on the stock market at the time of writing had a dividend cover of about 1.7 times. Many companies try to maintain the amount of dividend, even in years when profits are not good; their dividend cover then looks weaker.

6.8 Net Asset (or Balance Sheet) Value

It is easy to calculate the net asset value of a company, or the value of its equity, from the balance sheet. In most cases this is simply the total of shareholders' funds, which is the same as the total amount of net assets (fixed assets + current assets – Current liabilities – Long-term liabilities). The amount for preference shares (if there are any) should be deducted because we are usually assessing only the value of the ordinary shareholders' funds.

This amount can then be compared with the 'market capitalization' – the total value of all of the company's shares, using the most recent share price.



The comparison can be made using these total figures for the company as a whole. Alternatively, it can be made on a per share basis, comparing the net asset value per share with the share price.

In most cases the market value of a company is much higher than the net asset value shown on the balance sheet. This is for two main reasons:

- 1 Balance sheet values may be understated, often being based on historic cost rather than current values; and some assets are not shown on the balance sheet – human assets, skills and any ‘internally generated’²⁰ goodwill.
- 2 Share prices are determined by supply and demand for the shares, and the balance sheet usually has a minor influence on demand for shares. The major influence is expectations of future profits, and expectations that the share price will rise in the future.

Some traditional manufacturing companies may have huge amounts of assets, and their market capitalization may not be very much more than their net asset value. Many modern companies have relatively small amounts of tangible assets, and their value lies in their skills, expertise, reputation, brands, and other intangibles not shown on the balance sheet. Such companies might easily be worth five or ten times their net asset values – especially at the height of a bubble!

The *Financial Times* does not regularly publish net asset values – which might be taken as an indication that they are not seen as being particularly important. They can easily be calculated from a company’s balance sheet, and usually feature in reports by investment analysts, and are published by journals such as the *Investors Chronicle*.

In a minority of cases the net asset value of a company falls below its market capitalization. If the difference is substantial, this might invite an asset stripping takeover bid: it may be possible to buy up the company at a bargain price, and then sell off all of the separate parts of it at a profit. Investment analysts often assess the market value – not just the balance sheet value – of the separate parts of a business, and when this falls below the market capitalization, there are danger signs for management: another management team may be able to take over and do a better job for the shareholders.

In some cases, such as property companies, the market capitalization is usually significantly less than the market value of the underlying assets. In part this may be because the balance sheet shows properties at fairly full

²⁰ When a company buys another business, any amount paid for ‘goodwill’ has to be shown. But when a company generates its own goodwill, this is not shown on a balance sheet.



current valuations, and it may be difficult to sell the properties at those prices. It may also be because it is difficult to generate much growth in profits: rental income is relatively stable, and safe, but does not produce 'double digit' growth in profits.

6.9 Cash Flow

Cash flow may be a better indicator of a company's performance than profit. A company that generates substantial profits on paper, but cannot back them up with cash flows, raises serious questions. A company which makes profits year after year, but has to keep raising more money (by borrowing or making rights issues) may be unpopular with investors. Cash flow statements explain how and why a company's cash flow differs from its profit, as explained in Chapter 7.

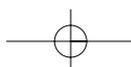
The first question is: does the company generate cash from its normal operations? If it does not there is a need to establish why not.

The second question is to do with expansion. Is the company investing in more fixed assets, and buying other businesses? This is clearly shown on the cash flow statement. Such expansion may require additional borrowing, or the issue of more shares. Amounts invested in expansion can be compared with the amounts raised as additional share capital and borrowings. It is a danger sign if the company is raising lots more capital, without any evident increase in profitable investment. It is more healthy if a company is investing in additional capacity, but this is partly financed from operating cash flows, and not totally dependent on raising additional funds.

A cash flow statement is arranged roughly in order of the importance of the figures in giving an indication of the company's strength in generating cash. It starts with the most important figures: cash generated from operations. Then taxation and interest are deducted to give a figure that indicates how much the company has generated (if any) – it is free to decide how to use this amount. It may be invested in fixed assets, or other businesses; it may be paid out as dividends.

The final figures on the cash flow statement, the increase or decrease in cash during the year, is not particularly important. It is more important to analyse the various factors that have given rise to that increase or decrease in cash.

Some analysts emphasize profit plus depreciation and amortization as being the key figure. Others look for 'free cash flow' which can be deduced from somewhere in the middle of the cash flow statement, by estimating how much of the amounts paid for additional fixed assets is essential, and how much is for expansion.



6.10 Other Indicators/Predictors of Performance

There is no shortage of investment analysts, experts and charlatans giving advice on how to pick winners when investing on the stock market. Most accountants are more cautious – but not all! It is difficult to be clear about who is an expert, who is a charlatan, and who is advising investing in particular shares for reasons of self-interest. Even the ‘experts’ do not seem to be able to get it right, and are often carried along with the fashionable conventional wisdoms of the day. In the late 1990s it was not difficult to spot that shares in telecommunications companies were overpriced as the bubble went up and up. But institutions who did not invest in telecommunications companies saw their results compared unfavourably with others who were more successful in investing in shares that continued to increase in value. They, and almost everyone, invested in telecommunications shares until the bubble burst, and share prices collapsed. The effects were serious for many, including pension funds.

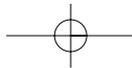
All financial accounting information can be analysed with a view to guiding investment decisions. Many different ratios can be calculated, and an examination of trends over a number of years can be revealing.

The relationship between a company’s turnover figure and its market capitalization is one of many ratios that might be worth following. The idea is that if a company’s market capitalization is higher than its turnover, the shares are overpriced. If a company’s turnover is very much higher than its market capitalization, the shares are good value. The theory is that if a company has a high level of sales (in relation to share price), profits will follow. The hardest thing is to achieve a high level of turnover. If the present management cannot make good profits from a high level of sales, a future management will. This may be no more than a hypothesis. It would probably turn out to be a good basis for investment in some companies, in some years; but not for other companies in other years. This is probably true for most decision rules which are supposed to form the basis for investment decisions.

During the period of enthusiasm for shares in telecommunications companies, emphasis was given to measures such as earnings before interest, taxation, depreciation and amortization.²¹ Decision rules emerged that a company should be worth about three times this figure. But ideas like this can be quickly abandoned when the market changes.

The more fully past data is analysed, the more models can be developed that appear to predict future share prices. It is not difficult to find past data

²¹ Known as EBITDA.



which, if analysed in a particular way, would have predicted share prices. But we cannot assume that such relationships will hold good in the future. In choosing between different accounting policies accountants often favour those policies which have most predictive value; but we can know only those which would have had most predictive value in the past. Markets are constantly changing. Companies and activities that did well in the 1990s may be a disaster in the 2000s. Past performance is no guide to the future.

The same arguments apply with technical analysis: it is difficult to believe that graphs of share prices over time show patterns which enable us to predict future share prices.

Although financial accounting cannot give us all of the answers that we might like, the information that it provides is central in making investment decisions, and in monitoring how successful those decisions turn out to be.

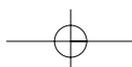
6.11 A Further Illustration

The main stock market ratios are shown in Illustration 6.8. The figures suggest a typical, average company, and may be used to make comparisons with other companies and to see how the ratios have been calculated. The P/E ratio, the dividend cover, and the dividend yield may all be calculated using figures for the company as a whole, or on a per share basis.

The figures for Stoutmouth plc are in many ways typical of a listed company. At the time of writing, the average P/E ratio of the 100 largest

Illustration 6.8

	Stoutmouth plc
Share capital (25 pence shares)	£ 5,000,000
Reserves	<u>£31,000,000</u> <u>£36,000,000</u>
Net profit after tax for year	£6,400,000
Dividends for year	£4,000,000
Number of shares	20,000,000
Market price of shares	£5.44
Market capitalization	£108,800,000
Earnings per share	£0.32
Dividend per share	£0.20
Price/Earnings ratio	17
Dividend times cover	1.6 times
Dividend yield	3.7%
Net assets per share	£1.80

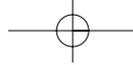


companies quoted on the London Stock Exchange was 17.6; the average dividend yield was 3.3 per cent; and the average times cover for dividends was 1.7. The market capitalization of each of the companies in the largest 100 is between £1 billion and £100 billion. But the market capitalization of most listed companies is nearer to that of Stoutmouth plc.

Summary

One of the main objectives of financial management is to maximize shareholders' wealth. Dividends, which are dependent on profits, contribute to this. But the main element of shareholders' wealth is the value of their shares. Directors and chief executives are usually well motivated to maintain and increase their company's share price: they own shares themselves; they may have options to buy shares at predetermined prices; and their remuneration may include substantial incentives related to share price performance. If they fail, and the share price languishes, they risk the wrath of shareholders, and leave themselves open to a hostile takeover bid with a new management team replacing them.

Accounting measures of solvency and profitability are central to the performance of share prices. If a company is seen as having excessive debt, the share price will suffer. Profitability is essential to maintaining and increasing share prices, although more attention seems to be paid to earnings per share than to return on capital employed. Growth, and expectations of future growth in sales, profits and dividends make a major contribution to increases in share prices. Sometimes it seems that expectations of share price increases are the main cause of share price increases. Share prices are influenced by expectations, rumours and many other factors which are difficult to define and measure, particularly in the short term. In the long run, sound finances, and growth in earnings per share are likely to be the main contributors to increasing share prices.



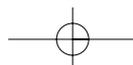
Review of Key Points

- ◆ Many different factors influence share prices
- ◆ A company's price/earnings ratio, dividend yield, and dividend cover are widely used measures of share price performance
- ◆ Growth and expectations of growth of sales and profits help to boost share prices
- ◆ Many influences on share prices are difficult to quantify
- ◆ Company directors and shareholders have an interest in maintaining and increasing share prices
- ◆ Claims to be able to predict share prices should be treated with caution
- ◆ Financial accounting information helps to explain changes in share prices

Self-testing Questions

- 1 Explain the meaning, calculation and significance of each of the following:
 - (a) Price/earnings ratio
 - (b) Dividend yield
 - (c) Dividend times cover
- 2 Is a company's balance sheet value (net asset value) likely to be higher or lower than its market value? Explain.
- 3 If a company currently has a dividend yield of 10 per cent, does that mean that someone investing £100 today will receive £10 dividend in the coming year? Explain. Reference should be made to United Utilities, Illustration 6.1.
- 4 You are given the following information about two companies. You are required to fill in the missing items for Beermouth plc.

	<u>Alemouth plc</u>	<u>Beermouth plc</u>
Share capital (20 pence shares)	£1,600,000	£ 2,000,000
Reserves	<u>£3,200,000</u>	<u>£18,000,000</u>
	<u>£4,800,000</u>	<u>£20,000,000</u>
Net profit after tax for year	£3,520,000	£1,200,000
Dividends for year	£3,200,000	£ 800,000



Self-testing Questions (continued)

Number of shares	8,000,000	10,000,000
Market price of shares	£4.40	£1.80
Market capitalization	£35,200,000	£18,000,000
Earnings per share	£0.44	£0.12
Dividend per share	£0.40	£0.08
Price/earnings ratio	10	–
Dividend times cover	1.1 times	–
Dividend yield	9.09%	–
Net assets per share	£0.60	–

- 5** Comment on the dividend yield of Alemouth plc.
- 6** Comment on the relationship between the net assets per share of Beermonth plc and its share price (or on the relationship of the total of shareholders' funds to the market capitalization).

Assessment Questions

- 1** What is the level of the FTSE 100 today? What is the average P/E ratio of the top 100 companies? What is their dividend yield and dividend cover?

On 16 September 2003 the FTSE 100 stood at 4299; the average P/E of the top 100 companies was 17.6; the average dividend yield was 3.3 per cent; and the average dividend cover was 1.72.

What do you think are the main causes of the changes since September 2003?

- 2** You are given the following information about two companies, partly extracted from their most recent balance sheet and profit and loss account, and partly taken from the financial press. You are required to fill in the missing items for Drinkmouth plc.

	<u>Cidermouth plc</u>	<u>Drinkmouth plc</u>
Share capital (20 pence shares)	£ 4,000,000	£1,200,000
Reserves	<u>£14,000,000</u>	<u>£2,400,000</u>
	<u>£18,000,000</u>	<u>£3,600,000</u>
Net profit after tax for year	£3,400,000	£1,800,000
Dividends for year	£2,000,000	£ 900,000
Number of shares	20,000,000	6,000,000
Market price of shares	£3.40	–
Market capitalization	£68,000,000	£45,000,000
Earnings per share	£0.17	£0.30
Dividend per share	£0.10	–



Assessment Questions (continued)

Price/earnings ratio	20	25
Dividend times cover	1.7 times	–
Dividend yield	2.9%	2.0%
Net assets per share	£1.80	–

3 You are given the following information about Swin Gin plc:

	Year 1	Year 2	Year 3	Year 4	Year 5*	Year 6	Year 7
Earnings per share	£0.50	£0.55	£0.62	£0.01	£1.20	£0.83	£0.90
Share price (after publication of results for year)	£6.00	£7.70	£9.92	£6.00	£7.20	£12.45	£15.30

* In Year 5 the company sold their head office building in London making a profit which amounted to £0.45 per share.

You are required to calculate the P/E ratio for each year, and comment on how the market appears to have reacted to changes in earnings per share.

- Assess the usefulness of P/E ratios and suggest how they might be misleading.
- Select a recent takeover bid (e.g. the 2003 bids by William Morrison and others for Safeway). Assess the various factors that determined the price that was eventually agreed for the company which was taken over.

Group Activities and Discussion Questions

- Look at the shares listing in the *Financial Times*. What is an average P/E ratio? Select some companies with high P/E ratios. Do they seem to have anything in common? How useful are the P/E ratios given for different sectors in the 'FTSE Actuaries Share Indices'? Select some companies with low P/E ratios. Do they seem to have anything in common?
- Look at the shares listing in the *Financial Times*. What is an average dividend yield? Select some companies with high dividend yields. Do they seem to have anything in common? How useful are the dividend yields given for different sectors in the 'FTSE Actuaries Share Indices'? Select some companies with low dividend yields. Do they seem to have anything in common?
- Each member of the group selects one or two companies in which they believe the shares are likely to increase in price during a selected period. A long period may be preferable, but in a 12-week module the selection could be made in week 4; the shares monitored for 6 weeks; and the 'final' results assessed in week 10.

Each member of the group is required to give a justification for selecting a particular share in week 4. Then, in week 10, each member should present an explanation of what has happened to their company's share price.



Group Activities and Discussion Questions (continued)

There would be a competitive element (who would have made most money?). There should also be an assessment of the quality of the presentations; this assessment could be done partly or wholly by the students themselves.

- 4 Each group forms one or more hypotheses about how to select companies where the increase in share prices is expected to be higher than the average for the FTSE 100 companies. Examples might include (with variations) such things as:
- (i) companies with a dividend yield of between 4 per cent and 5 per cent where the cover is not less than 2;
 - (ii) companies where sales have increased by more than 20 per cent per annum (over a given number of years), but profits have not (yet) increased;
 - (iii) companies where profits have increased by more than 10 per cent since last year, but the share price is lower.

This exercise might be more fun if it is done live. But it is difficult to complete it during the 12-week period of a typical module. It is easiest to do it historically. The decision rules are selected first; then they are applied to a sample of companies.

Some competition between different groups can produce interesting results. The results produced by the winners might need careful scrutiny.

- 5 Each group chooses three different sectors, (e.g. Pharmaceuticals and Biotech; Construction and Building Materials; Transport; Retailers). The key stock market indicators are found for each sector and compared with the average for the FTSE. These are shown in the *Financial Times* as 'FTSE Actuaries Share Indices'. Suggest factors which make each sector different from the FTSE average.

Financial Accounting in context

Discuss and comment on the following item taken from the press:

BA's pessimism could hit hopes of Footsie return by Kevin Done

Financial Times, 9 September 2003

Rod Eddington, chief executive of British Airways, warned yesterday that 'a real recovery in air travel was still some way off'. The aviation market had bottomed out but there was 'little evidence of significant recovery', he said.

Mr Eddington's pessimistic assessment could undermine BA's hopes of being reinstated this week in the FTSE 100.

BA's share price has more than doubled in the last six months on hopes that airlines were coming through the worst of the crisis in the aviation industry.

**Financial Accounting in context (continued)**

The strong recovery has propelled BA to the brink of reinstatement in the FTSE 100, but its shares closed yesterday 10p lower at 190 $\frac{1}{4}$ p. Last night's ranking of 92 amongst listed UK companies would not guarantee it readmission, when the index undergoes its quarterly adjustment, based on tonight's closing prices.

Mr Eddington also made a strong plea in a speech to the UBS transport conference for a third runway to be built at Heathrow. Delays and congestion at the airport, BA's main base, were costing the group £67m a year and a third runway was 'vital' for the group. Playing down recent suggestions that a recovery in the aviation industry was already under way, he said that volumes in the airline's crucial UK/US business class market were still 20 per cent below those of 2000.

Mr Eddington said the propensity to travel premium class on long-haul services, as measured by industry surveys, was at a record low, and he ruled out any chance of a longer-term recovery of business class flying on short-haul services, where there had been a structural change in the market.

Mr Eddington said industry yields on long-haul services were at record lows, below even the level of the three months following the September 11 2001 terrorist attacks in the US. Yields on European short-haul services were also 'unlikely to improve', said Mr Eddington, because of the heavy competitive pressures from the fast-growing low-cost airlines.

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