

74.1 An exercise on investment ratios

Below are extracts from the five-year historical record published with the accounts of six listed companies, with their P/E ratio at the time of writing.

	current P/E ratio	Year 1	Year 2	Year 3	Year 4	Year 5
all figures in pence						
Water Company	P/E 22					
earnings per share						
basic		43.40	80.30	39.00	52.90	106.10
adjusted		87.20	92.10	52.60	70.40	82.40
dividends per share		45.90	47.04	48.51	51.13	61.45
Office Rental Co	P/E 5.9					
earnings per share						
basic		2.10	(10.10)	15.10	39.30	91.70
adjusted		12.70	13.30	12.80	11.60	10.20
dividends per share		10.00	10.25	10.50	10.75	11.00
Department Store	P/E 19.1					
earnings per share						
basic		21.80	24.20	17.60	31.30	39.10
adjusted						
dividends per share		23.30	24.70	19.20	31.40	40.40
Public Transport Co	P/E 17.7					
earnings per share						
basic		38.00	28.70	42.60	43.70	51.80
adjusted						
dividends per share		17.20	18.00	18.90	19.84	20.83
Pharmaceutical Co	P/E 14.6					
earnings per share						
basic		65.15	73.62	80.98	82.60	95.50
adjusted						
dividends per share		40.00	41.00	42.00	44.00	48.00
Satellite Broadcaster	P/E 18.7					
earnings per share						
basic		-55.5	14.9	22.4	30.2	30.2
adjusted						
dividends per share		nil	nil	2.75	7.25	10.5

Study the table and:

- compute the dividend cover for each company for each year
- identify any periods in which the 'adjusted' earnings per share has turned out to be lower than the basic earnings per share. Comment
- identify any periods in which there was a fall in earnings per share, and compare the movement in that period of the dividend per share (increase, decrease or stay the same). Comment
- identify any period in which there was a cut in dividend
- compare each company's present P/E ratio against its trend of past earnings per share and dividends per share. Is there any relation?

(a)

Compute the dividend cover for each company for each year.

Response

Dividend cover (basic earnings per share/dividend per share) for each company and year is as calculated in the highlighted figures below.

	Year 1	Year 2	Year 3	Year 4	Year 5
	all figures in pence				
Water Company					
basic earnings per share	43.40	80.30	39.00	52.90	106.10
dividends per share	45.90	47.04	48.51	51.13	61.45
dividend cover	0.9	1.7	0.8	1.0	1.7
Office Rental Co					
basic earnings per share	2.10	(10.10)	15.10	39.30	91.70
dividends per share	10.00	10.25	10.50	10.75	11.00
dividend cover	0.2	-1.0	1.4	3.7	8.3
Department Store					
basic earnings per share	21.80	24.20	17.60	31.30	39.10
dividends per share	23.30	24.70	19.20	31.40	40.40
dividend cover	0.9	1.0	0.9	1.0	1.0
Public Transport Co					
basic earnings per share	38.00	28.70	42.60	43.70	51.80
dividends per share	17.20	18.00	18.90	19.84	20.83
dividend cover	2.2	1.6	2.3	2.2	2.5
Pharmaceutical Co					
basic earnings per share	65.15	73.62	80.98	82.60	95.50
dividends per share	40.00	41.00	42.00	44.00	48.00
dividend cover	1.6	1.8	1.9	1.9	2.0
Satellite Broadcaster					
basic earnings per share	(55.50)	14.90	22.40	30.20	30.20
dividends per share	nil	nil	2.75	7.25	10.50
dividend cover	n/a	n/a	8.1	4.2	2.9

Ratios highlighted in pink are uncovered dividends – that is where the dividend is greater than the earnings for the period, so the dividend cover is less than 1.

It is interesting to compare the apparent policy of the office rental company (paying a steadily rising dividend regardless of profits or losses) and the department store (paying out a dividend in each year that is roughly equal in each year to the company's earnings per share).

(b)

Identify any periods in which the ‘adjusted’ earnings per share has turned out to be lower than the basic earnings per share. Comment.

Response

An adjusted earnings per share is offered by only two companies in the table. Those highlighted in **green** below are cases where the adjusted eps is higher than the basic. Those highlighted in **pink** are cases where the adjusted eps is lower than the basic eps.

	Year 1	Year 2	Year 3	Year 4	Year 5
	all figures in pence				
Water Company	P/E 22				
earnings per share					
basic	43.40	80.30	39.00	52.90	106.10
adjusted	87.20	92.10	52.60	70.40	82.40
dividends per share	45.90	47.04	48.51	51.13	61.45
Office Rental Co	P/E 5.9				
earnings per share					
basic	2.10	(10.10)	15.10	39.30	91.70
adjusted	12.70	13.30	12.80	11.60	10.20
dividends per share	10.00	10.25	10.50	10.75	11.00

The Water Company’s basic earnings per share are surprisingly volatile, and the offering of the adjusted eps may be an attempt to present a smoother pattern of earnings (being much higher than the basic eps in years when basic earnings are exceptionally low, and much lower than basic eps when, as in Year 5, basic earnings are exceptionally high).

There is a similar smoothing effect in the adjusted eps of the Office Rental Company, although in this case the adjustment is more frequently down than up. This may indicate some fundamental difference between what the company is *obliged* to report as basic earnings, according to accounting rules and conventions, and what it believes it *ought* to report as earnings, according to the particular nature of the business.

(c)

Identify any periods in which there was a fall in earnings per share, and compare the movement in that period of the dividend per share (increase, decrease or stay the same). Comment.

Response

In the table below, eps and dividends per share that are lower than the preceding period are highlighted in pink, while those that are higher than the preceding period are highlighted in green.

	Year 1	Year 2	Year 3	Year 4	Year 5
	all figures in pence				
Water Company	P/E 22				
basic earnings per share	43.40	80.30	39.00	52.90	106.10
adjusted earnings per share	87.20	92.10	52.60	70.40	82.40
dividends per share	45.90	47.04	48.51	51.13	61.45
Office Rental Co	P/E 5.9				
basic earnings per share	2.10	(10.10)	15.10	39.30	91.70
adjusted earnings per share	12.70	13.30	12.80	11.60	10.20
dividends per share	10.00	10.25	10.50	10.75	11.00
Department Store	P/E 19.1				
basic earnings per share	21.80	24.20	17.60	31.30	39.10
dividends per share	23.30	24.70	19.20	31.40	40.40
Public Transport Co	P/E 17.7				
basic earnings per share	38.00	28.70	42.60	43.70	51.80
dividends per share	17.20	18.00	18.90	19.84	20.83
Pharmaceutical Co	P/E 14.6				
basic earnings per share	65.15	73.62	80.98	82.60	95.50
dividends per share	40.00	41.00	42.00	44.00	48.00
Satellite Broadcaster	P/E 18.7				
basic earnings per share	-55.5	14.90	22.40	30.20	30.20
dividends per share	nil	nil	2.75	7.25	10.50

Notice that there is only one dividend cut (in a total of 24 possible cases), and that – apart from that single instance of a dividend cut – for the companies in our table, a fall in eps, or even a loss in a particular year, is invariably accompanied by an *increase* in dividend per share.

(d)

Identify any period in which there was a cut in dividend.

Response

As shown in the table below, and noted in the answer to (c) above, there is only one instance of a company cutting its dividend.

	current P/E ratio	Year 1	Year 2	Year 3	Year 4	Year 5
all figures in pence						
Water Company	P/E 22					
earnings per share						
basic		43.40	80.30	39.00	52.90	106.10
adjusted		87.20	92.10	52.60	70.40	82.40
dividends per share		45.90	47.04	48.51	51.13	61.45
Office Rental Co	P/E 5.9					
earnings per share						
basic		2.10	(10.10)	15.10	39.30	91.70
adjusted		12.70	13.30	12.80	11.60	10.20
dividends per share		10.00	10.25	10.50	10.75	11.00
Department Store	P/E 19.1					
earnings per share						
basic		21.80	24.20	17.60	31.30	39.10
adjusted						
dividends per share		23.30	24.70	19.20	31.40	40.40
Public Transport Co	P/E 17.7					
earnings per share						
basic		38.00	28.70	42.60	43.70	51.80
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earnings per share						
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Satellite Broadcaster	P/E 18.7					
earnings per share						
basic		-55.5	14.9	22.4	30.2	30.2
adjusted						
dividends per share		nil	nil	2.75	7.25	10.5

There is some significance, I think, in the fact that the only company to make a cut in its dividend is the company identified in the answer to (a) as following an apparent policy of making its dividend roughly equal in each year to its earnings per share.

(e)

Compare each company's present P/E ratio against its trend of past earnings per share and dividends per share. Is there any relation?

Response

The table below shows the different companies' ranking by P/E ratio.

	ranking by P/E ratio	Year 1	Year 2	Year 3	Year 4	Year 5
all figures in pence						
Water Company	P/E 22					
basic earnings per share	1	43.40	80.30	39.00	52.90	106.10
adjusted earnings per share		87.20	92.10	52.60	70.40	82.40
dividends per share		45.90	47.04	48.51	51.13	61.45
Office Rental Co	P/E 5.9					
basic earnings per share	6	2.10	(10.10)	15.10	39.30	91.70
adjusted earnings per share		12.70	13.30	12.80	11.60	10.20
dividends per share		10.00	10.25	10.50	10.75	11.00
Department Store	P/E 19.1					
basic earnings per share	2	21.80	24.20	17.60	31.30	39.10
dividends per share		23.30	24.70	19.20	31.40	40.40
Public Transport Co	P/E 17.7					
basic earnings per share	4	38.00	28.70	42.60	43.70	51.80
dividends per share		17.20	18.00	18.90	19.84	20.83
Pharmaceutical Co	P/E 14.6					
basic earnings per share	5	65.15	73.62	80.98	82.60	95.50
dividends per share		40.00	41.00	42.00	44.00	48.00
Satellite Broadcaster	P/E 18.7					
basic earnings per share	3	-55.5	14.90	22.40	30.20	30.20
dividends per share		nil	nil	2.75	7.25	10.50

COLOUR CODE

higher	than	previous
lower	than	previous

In this sample, perhaps surprisingly, there seems to be very little relation between high P/E ratio and steadiness or reliability of earnings – that is, there seems to be little relation between price and quality.