Example: Gearing

A summarised statement of financial position of Rufus is as follows:

	$m
Assets less current liabilities	150
Debt capital	(70)
	80
Share capital (10 million shares)	20
Reserves	60
	80

The company's profits in the year just ended are as follows:

	$m
Profit from operations	21.00
Interest	6.00
Profit before tax	15.00
Taxation at 16.5%	2.48
Profit after tax (earnings)	12.52
Dividends	6.50
Retained profits	6.02

The company is now considering an investment of $25 million. This will add $5 million each year to profits before interest and tax.

(a) There are two ways of financing this investment. One would be to borrow $25 million at a cost of 8% per annum in interest. The other would be to raise the money by means of a 1-for-4 rights issue.

(b) Whichever financing method is used, the company will increase dividends per share next year from 65c to 70c.

(c) The company does not intend to allow its gearing level, measured as debt finance as a proportion of equity capital plus debt finance, to exceed 55% as at the end of any financial year. In addition, the company will not accept any dilution in earnings per share.

Assume that the rate of taxation will remain at 16.5% and that debt interest costs will be $6 million plus the interest cost of any new debt capital.

Required

(a) Produce a profit forecast for next year, assuming that the new project is undertaken and is financed (i) by debt capital or (ii) by a rights issue.

(b) Calculate the earnings per share next year, with each financing method.

(c) Calculate the effect on gearing as at the end of next year, with each financing method.

(d) Explain whether either or both methods of funding would be acceptable.

Solution

Current earnings per share are $\frac{\$12.52 \text{ million}}{10 \text{ million shares}} = \$1.252$

If the project is financed by $25 million of debt at 8%, interest charges will rise by $2 million. If the project is financed by a 1-for-4 rights issue, there will be 12.5 million shares in issue.

	Finance with debt	*Finance with rights issue*
	$m	$m
Profit before interest and tax (+ 5.0)	26.00	26.00
Interest	8.00	6.00
	18.00	20.00
Taxation (16.5%)	2.97	3.30
Profit after tax	15.03	16.70
Dividends (70c per share)	7.00	8.75
Retained profits	8.03	7.95
Earnings (profits after tax)	$15.03m	$16.70m
Number of shares	10 million	12.5 million
Earnings per share	$1.503	$1.336

The projected statement of financial position as at the end of the year will be:

	Finance with debt	*Finance with rights issue*
	$m	$m
Assets less current liabilities	183.03	182.95
(150 + new capital 25 + retained profits)		
Debt capital	(95.00)	(70.00)
	88.03	112.95
Share capital	20.00	45.00
Reserves	68.03	67.95
	88.03	112.95

	Finance with debt	*Finance with rights issue*
Debt capital	95.0	70.0
Debt capital plus equity finance	(95.0 + 88.03)	(70.0 + 112.95)
Gearing	51.9%	38.3%

Either financing method would be acceptable, since the company's requirements for no dilution in EPS would be met with a rights issue as well as by borrowing, and the company's requirement for the gearing level to remain below 55% is met even if the company were to borrow the money.