

REFLATOR INC

A division of Reflator Inc has recently experienced severe financial difficulties. The management of the division is keen to undertake a buyout, but in order for the buyout to succeed it needs to attract substantial finance from a venture capital organisation. Reflator Inc is willing to sell the division for \$2.1 million, and the managers believe that an additional \$1 million of capital would need to be invested in the division to create a viable going concern.

Possible financing sources:

Equity from management \$500,000, in 50 cents ordinary shares.

Funds from the venture capital organisation:

Equity \$300,000, in 50 cents ordinary shares

Debt: 8.5% fixed-rate loan \$2,000,000

9% subordinated loan with warrants attached \$300,000.

The warrants are exercisable any time after four years from now at the rate of 100 ordinary shares at the price of 150 cents per share for every \$100 of subordinated loan.

The principal on the 8.5% fixed-rate loan is repayable as a bullet payment at the end of eight years. The subordinated loan is repayable by equal annual payments, comprising both interest and principal, over a period of six years.

The division's managers propose to keep dividends to no more than 15% of profits for the first four years.

Independently produced forecasts of earnings before tax and interest after the buyout are shown below:

Year	\$000			
	1	2	3	4
EBIT	320	410	500	540

Corporate tax is at the rate of 30% per year.

The managers involved in the buyout have stated that the book value of equity is likely to increase by about 20% per year during the first four years, making the investment very attractive to the venture capital organisation. The venture capital organisation has stated that it is interested in investing, but has doubts about the forecast growth rate of equity value, and would require warrants for 150 shares per \$100 of subordinated loan stock rather than 100 shares.

Required:

- (a) Briefly discuss the potential advantages of management buyouts. (4 marks)
- (b) Discuss the possible problems and pitfalls that might be encountered by the managers involved, both in achieving the buyout and subsequently. (5 marks)
- (c) On the basis of the above data, estimate whether or not the book value of equity is likely to grow by 20% per year. (7 marks)
- (d) Evaluate the possible implication of the managers agreeing to offer warrants for 150 ordinary shares per \$100 of loan stock. (3 marks)
- (e) Discuss the advantages and disadvantages of growth by acquisition or merger as compared with organic growth. (6 marks)

(Total: 25 marks)

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Key answer tips

In part (a) it is easier to discuss the advantages of MBOs by looking at the different stakeholders involved.

For part (c) you need to construct a statement of profit or loss for each year. The trickiest part is separating the interest and capital elements with the 'mortgage style' subordinated loan.

In part (d) look at the implications of the warrant scheme on ultimate shareholdings and control.

- (a) The advantages of a buyout may be viewed from the perspectives of each of the parties involved.

The selling company may regard a buyout as preferable to the liquidation of a loss-making division. A buyout might result in a higher disposal price, and has the social effect of protecting jobs. Selling part of the organisation might allow the company to focus on its core competence.

The current managers, with their existing expertise of the markets, relationships with clients, etc, may have a better chance of successfully operating the company. They are also likely to be highly motivated through their significant equity holdings, and by the potential for large capital gains if the company succeeds.

A venture capitalist or other type of investor normally takes a high risk, in the hope of high returns mainly through capital gains. Most investors would seek some form of exit route for their investment after several years, possible through a listing on a stock market. In some countries investing in buyouts may offer tax advantages.

(b) Possible problems and pitfalls:

- Financing of the purchase – presenting a credible case to backers
- Compliance with the terms offered by financial backers, e.g. forfeit of some management control
- Determination of price and definition of what is to be purchased
- Loss of key employees, which may increase the risk of survival
- Cash flow forecasts – cash needs are often understated
- Industrial relations – in determining new staffing levels and wage rates
- Lack of expertise because the management team are incomplete.

(c) The increase in the value of equity may be estimated from the expected retained earnings over the four-year period. The maximum 15% dividend payment is assumed.

Year	0	1	2	3	4
Earnings before interest and tax		320,000	410,000	500,000	540,000
Interest 8.5%		170,000	170,000	170,000	170,000
Interest 9% loan ¹		27,000	23,411	19,499	15,236
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Earnings before tax		123,000	216,589	310,501	354,764
Taxation (30%)		36,900	64,977	93,150	106,429
		<hr/>	<hr/>	<hr/>	<hr/>
Earnings after tax		86,100	151,612	217,351	248,335
Dividend (15%)		12,915	22,742	32,603	37,250
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Retained earnings		73,185	128,870	184,748	211,085
Book value of equity	800,000	873,185	1,002,055	1,186,803	1,397,888

Growth in the book value of equity from 800,000 to 1,397,888 over four years is a compound growth rate of 14.97%. This is considerably less than the 20% growth rate claimed by the managers.

It should be noted that this is a book value of equity. The market value of equity is much more relevant to a potential investor, and is likely to be very different from this book value.

Note:

¹Interest on the 9% loan

The equal annual payment comprising interest and capital that is necessary to pay off a \$300,000 loan over six years is:

$$\frac{300,000}{4.486} = \$66,875 \text{ (4.486 is the PV annuity factor for six years at 9\%)}$$

Year	Remaining value	Interest	Repayment of capital
1	300,000	27,000	39,875
2	260,125	23,411	43,464
3	216,661	19,499	47,376
4	169,285	15,236	51,639

(d) At the start of the buyout, the equity holding would be 1,000,000 shares by the managers, and 600,000 by the venture capital organisation. The initial warrant proposal would allow the venture capital organisation to purchase 300,000 new shares after four years, a total of 900,000. The revised suggestion would allow 450,000 new shares to be purchased, which would give majority ownership and control of the company to the venture capital organisation. This is likely to be unacceptable to the managers, unless they also will have further opportunities to increase their share ownership, for example through other forms of option.

(e) **Features of growth by acquisition versus organic growth**

The advantages of growth by acquisition or merger are:

- much quicker method of increasing market share than growing organically;
- if the two companies do not have perfectly correlated cash flows, combining them together will offer diversification opportunity and a reduction in the cost of capital. This should increase the value of the group and therefore increase shareholder wealth;
- buying out or merging with one's competitors reduces the competition faced in the market, thereby strengthening one's price-setting ability.

The disadvantages of growth by acquisition or merger are:

- acquisition is usually more expensive for the purchasing company. Research continually shows that in contested acquisitions it is the shareholders of the target company who gain the greatest share of the benefits arising;
- many acquisitions and mergers are planned in anticipation of generating synergistic cost savings, but in practice these synergies often fail to appear;
- there may be cultural clashes following the acquisition or merger between the two sets of employees. If skilled employees become demotivated and leave, then much of the skill set has been lost.