

MERGER, ACQUISITION & RESTRUCTURING

BASIC CONCEPTS AND FORMULAE

1. Introduction

The terms 'mergers', 'acquisitions' and 'takeovers' are often used interchangeably in common parlance. However, there are differences. While merger means unification of two entities into one, acquisition involves one entity buying out another and absorbing the same. In India, in legal sense merger is known as 'Amalgamation'.

2. Reconstruction

Reconstruction involves the winding-up of an existing company and transfer of its asset and liabilities to a new company formed to take the place of the existing company. In the result, the same shareholders who agree to take equivalent shares in the new company carry on the same enterprise through the medium of a new company.

3. Amalgamation or Merger

"Generally, where only one company is involved in a scheme and the rights of the shareholders and creditors are varied, it amounts to *reconstruction* or *reorganisation* or *scheme of arrangement*. In an amalgamation, two or more companies are fused into one by merger or by one taking over the other. Amalgamation is a blending of two or more existing undertakings into one undertaking, the shareholders of each blending company become substantially the shareholder of the company which is to carry on the blended undertaking.

4. Types of Mergers

- (a) **Horizontal merger:** The two companies which have merged are in the same industry, normally the market share of the new consolidated company would be larger and it is possible that it may move closer to being a monopoly or a near monopoly.
- (b) **Vertical merger:** It means the merger of two companies which are in different field altogether, the coming together of two concerns may give rise to a situation similar to a monopoly.

- (c) **Reverse merger-** Where, in order to avail benefit of carry forward of losses which are available according to tax law only to the company which had incurred them, the profit making company is merged with companies having accumulated losses.
- (d) **Conglomerate Mergers-** Such mergers involve firms engaged in unrelated type of business operations. In other words, the business activities of acquirer and the target are not related to each other horizontally (i.e. producing the same or competing products) nor vertically (having relationship of buyer and supplier). In a pure conglomerate merger, there are no important common factors between the companies in production, marketing, research and development and technology.
- (e) **Congeneric Merger-** In these mergers, the acquirer and the target companies are related through basic technologies, production processes or markets. The acquired company represents an extension of product-line, market participants or technologies of the acquirer. These mergers represent an outward movement by the acquirer from its current business scenario to other related business activities.

5. Reasons and Rationale for Mergers and Acquisitions

The most common reasons for Mergers and Acquisition (M&A) are:

- Synergistic operating economies;
- Diversification;
- Taxation;
- Growth; and
- Consolidation of production capacities and increasing market power.

6. Gains from Mergers or Synergy

The first step in merger analysis is to identify the economic gains from the merger. There are gains, if the combined entity is more than the sum of its parts. That is, Combined value > (Value of acquirer + Stand alone value of target).

The difference between the combined value and the sum of the values of individual companies is usually attributed to *synergy*.

Value of acquirer + Stand alone value of target + Value of synergy = Combined value

7. Principal Steps in a Successful M & A Program

- Manage the pre-acquisition phase;

- Screen candidates;
- Eliminate those who do not meet the criteria and value the rest;
- Negotiate; and
- Post-merger integration.

8. Problems for M & A in India

- Indian corporates are largely promoter-controlled and managed.
- In some cases, the need for prior negotiations and concurrence of financial institutions and banks is an added rider, besides SEBI's rules and regulations.
- The reluctance of financial institutions and banks to fund acquisitions directly.
- The BIFR route, although tedious, is preferred for obtaining financial concessions.
- Lack of exit policy for restructuring/downsizing.
- Absence of efficient capital market system makes the market capitalisation not fair in some cases.
- Valuation is still evolving in India.

9. Mergers in Specific Sectors

The Companies Act, 1956 and the SEBI's Takeover Code are the general source of guidelines governing mergers. There are sector specific legislative provisions, which to a limited extent empower the regulator to promote competition. Mergers in the banking sector require approval from the RBI.

10. Acquisitions and Takeover

Acquisition refers to the purchase of controlling interest by one company in the share capital of an existing company. When a company is acquired by another company, the acquiring company has two choices either to merge both the companies into one and function as a single entity and another is to operate the company as an independent entity with changed management and policies. The first one is termed as 'Merger', whereas the second one is known as 'Takeover'.

11. The Evolution of Takeovers, Principles and Enforcement–The Indian Scenario

There are basically two major modes of takeover which are prevalent in India- Takeover through direct negotiations with Financial Institutions and Takeover by acquisition of adequate shareholding. Acquisition or Takeover may be by way of:

- (i) Acquisition of company's shares.
- (ii) Acquisition of business assets (ABOs).
- (iii) Acquisition of brand's.
- (iv) Acquisition of Companies by Friendly vs. Hostile takeover.
- (v) Reverse acquisition.

12. Takeover Strategies

Other than tender offer, the acquiring company can also use the following techniques:

- **Street Sweep:** It refers to the technique where the acquiring company accumulates large number of shares in a target company before making an open offer.
- **Bear Hug:** When the acquirer threatens the target company to make an open offer, the board of the target company agrees to a settlement with the acquirer for change of control.
- **Strategic Alliance:** This involves disarming the acquirer by offering a partnership rather than a buyout. The acquirer asserts control from within and takes over the target company.
- **Brand Power:** This refers to entering into an alliance with powerful brands to displace the target's brands and as a result, buyout the weakened company.

13. Takeover by Reverse Bid

In a 'reverse takeover', a smaller company gains control of a larger one. The concept of takeover by reverse bid, or of reverse merger, is thus not the usual case of amalgamation of a sick unit which is non-viable with a healthy or prosperous unit but is a case whereby the entire undertaking of the healthy and prosperous company is to be merged and vested in the sick company which is non-viable.

14. The Acquisition Process

The acquisition process involves the following five essential stages:

- (i) Competitive analysis;
- (ii) Search and screen;
- (iii) Strategy development;
- (iv) Financial evaluation; and
- (v) Negotiation.

15. Defending a Company in a Takeover Bid

Due to the prevailing guidelines, the target company without the approval of the shareholder cannot resort to any issuance of fresh capital or sale of assets etc., and also due to the necessity of getting approvals from various authorities. Thus, the target company cannot refuse transfer of shares without the consent of shareholders in a general meeting.

A target company can adopt a number of tactics to defend itself from hostile takeover through a tender offer.

- Divestiture;
- Crown jewels;
- Poison pill;
- Poison Put;
- Greenmail;
- White knight ;
- White squire;
- Golden parachutes ; and
- Pac-man defense.

16. Legal Aspects of M & As

Merger control requirements in India are currently governed by the provisions of the Companies Act, 1956 and the Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 1997. ("the takeover code"). Other statutes which govern merger proposals are the Industries (Development and Regulation) Act, 1951; the Foreign Exchange Management Act, 2000, the Income Tax Act, 1961 and the SEBI Act, 1992.

17. Due Diligence

Due diligence means research. Its purpose in M&A is to support the valuation process, arm negotiators, test the accuracy of representations and warranties contained in the merger agreement, fulfill disclosure requirements to investors, and inform the planners of post-merger integration.

A due diligence process should focus at least on the following issues:

- Legal issues;
- Financial and tax issues;

- Marketing issues;
- Cross-border issues; and
- Cultural and ethical issues.

18. Target Valuation for M & A

The value of a business is a function of the business logic driving the M&A and is based on bargaining powers of buyers and sellers. Thorough due diligence has to be exercised in deciding the valuation parameters since these parameters would differ from sector to sector and company to company. Some methods of valuation are:

- (a) **Earnings based valuation** (discounted cash-flow being the most common technique) takes into consideration the future earnings of the business and hence the appropriate value depends on projected revenues and costs in future, expected capital outflows, number of years of projection, discounting rate and terminal value of business.
- (b) In a **cost to create** approach, the cost for building up the business from scratch is taken into consideration and the purchase price is typically the cost plus a margin.
- (c) While using the **market based valuation** for unlisted companies, comparable listed companies have to be identified and their market multiples (*such as market capitalizations to sales or stock price to earnings per share*) are used as surrogates to arrive at a value.
- (d) The **asset based value** considers either the book value (assets net liabilities) or the net adjusted value (revalued net assets). If the company has intangible assets like brands, copyrights, intellectual property etc., these are valued independently and added to the net asset value to arrive at the business value.

19. Corporate Restructuring

Restructuring of business is an integral part of modern business enterprises. Restructuring usually involves major organizational changes such as shift in corporate strategies. Restructuring can be internally in the form of new investments in plant and machinery, Research and Development of products and processes, hiving off of non-core businesses, divestment, sell-offs, de-merger etc. Restructuring can also take place externally through mergers and acquisitions (M&A) and by forming joint-ventures and having strategic alliances with other firms. The aspects relating to expansion or contraction of a firm's operations or changes

in its assets or financial or ownership structure are known as corporate restructuring.

20. Reasons for Demerger/Divestment

There are various reasons for divestment or demerger viz.

- (i) To pay attention on core areas of business;
- (ii) The division's/business may not be sufficiently contributing to the revenues;
- (iii) The size of the firm may be too big to handle; and
- (iv) The firm may be requiring cash urgently in view of other investment opportunities.

21. Different Ways of Divestment or Demerger

- (a) **Sell off:** A sell off is the sale of an asset, factory, division, product line or subsidiary by one entity to another for a purchase consideration payable either in cash or in the form of securities.
- (b) **Spin-off:** In this case, a part of the business is separated and created as a separate firm.
- (c) **Split-up:** This involves breaking up of the entire firm into a series of spin off (by creating separate legal entities). The parent firm no longer legally exists and only the newly created entities survive.
- (d) **Carve outs:** This is like spin off however; some shares of the new company are sold in the market by making a public offer, so this brings cash. In carve out, the existing company may sell either majority stake or minority stake, depending upon whether the existing management wants to continue to control it or not.
- (e) **Sale of a Division:** In the case of sale of a division, the seller company is demerging its business whereas the buyer company is acquiring a business.

22. Corporate Controls

- (a) **Going Private:** This refers to the situation wherein a listed company is converted into a private company by buying back all the outstanding shares from the markets.
- (b) **Equity buyback:** This refers to the situation wherein a company buys back its own shares from the market. This results in reduction in the equity capital of the company. This strengthens the promoter's position by increasing his stake in the equity of the company.

- (c) **Restructuring of an existing business:** It may involve, for instance, downsizing and closing down of some unprofitable departments. May also include trimming the number of personnel.
- (d) **Buy-outs:** This is also known as Management buyouts (MBO). In this case, the management of the company buys a particular part of the business from the firm and then incorporates the same as a separate entity.
- (e) **Management buy-ins:** They are a similar form of transaction but differ in the sense that the entrepreneurs leading the transaction come from outside the company. The Buy-ins is a hybrid form involving both existing and new managements.

23. Financial Restructuring

Financial restructuring refers to a kind of internal changes made by the management in assets and liabilities of a company with the consent of its various stakeholders. This is a suitable mode of restructuring for corporate entities who have suffered from sizeable losses over a period of time. For such firms a plan of restructuring needs to be formulated involving a number of legal formalities (which includes consent of court, and other stake-holders viz., creditors, lenders and shareholders etc.).

24. Merger Failures or Potential Adverse Competitive Effects

The reasons for merger failures can be numerous. Some of the key reasons are:

- Acquirers generally overpay;
- The value of synergy is over-estimated;
- Poor post-merger integration; and
- Psychological barriers.

Most companies merge with the hope that the benefits of synergy will be realised. Synergy will be there only if the merged entity is managed better after the acquisition than it was managed before. Therefore, to make a merger successful, companies may follow the steps listed as under:

- Decide what tasks need to be accomplished in the post-merger period;
- Choose managers from both the companies (and from outside);
- Establish performance yardstick and evaluate the managers on that yardstick; and
- Motivate them.

25. Maximum Purchase Consideration

Maximum purchase consideration is value of vendor's business from the viewpoint of the purchaser. This is given by present value incremental cash flow accruing to the purchaser on acquisition of vendor's business. Some important points to be noted in this regard are:

- The discounting rate represents the rate of return desired from the operating activities.
- The operating cash flow of a business is the aggregate of cash flows generated by the operating assets.
- The acquisition of business can give rise to certain additional liabilities.
- In theory, a business has infinite life. However, in reality it is very difficult to project cash flows to eternity. It is, therefore, usual to assume that the business shall be disposed off after the forecast period. The expected disposal value of the business, called the terminal or horizon value is a cash flow in the terminal year. The present value of terminal value is added with the present value of operating cash flows.

26. Acquiring for Shares

The acquirer can pay the target company in cash or exchange shares in consideration. The analysis of acquisition for shares is slightly different. The steps involved in the analysis are:

Estimate the value of acquirer's (self) equity;

- Estimate the value of target company's equity;
- Calculate the maximum number of shares that can be exchanged with the target company's shares; and
- Conduct the analysis for pessimistic and optimistic scenarios.

Exchange ratio is the number of acquiring firm's shares exchanged for each share of the selling firm's stock. Suppose company A is trying to acquire company B's 100,000 shares at Rs.230. So the cost of acquisition is Rs. 230,00,000. Company A has estimated its value at Rs.200 per share. To get one share of company B, A has to exchange $(230/200)$ 1.15 share, or 115,000 shares for 100,000 shares of B. The relative merits of acquisition for cash or shares should be analysed after giving due consideration to the impact on EPS, capital structure, etc.

27. Impact of Price- Earnings Ratio

The reciprocal of cost of equity is price-earning (P/E) ratio. The cost of equity, and

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consequently the P/E ratio reflects risk as perceived by the shareholders. The risk of merging entities and the combined business can be different. In other words, the combined P/E ratio can very well be different from those of the merging entities. Since market value of a business can be expressed as product of earning and P/E ratio ($P/E \times E = P$), the value of combined business is a function of combined earning and combined P/E ratio. A lower combined P/E ratio can offset the gains of synergy or a higher P/E ratio can lead to higher value of business, even if there is no synergy. In ascertaining the exchange ratio of shares due care should be exercised to take the possible combined P/E ratio into account.

Question 1

Explain the term "Demerger".

Answer

Demerger: The word 'demerger' is defined under the Income-tax Act, 1961. It refers to a situation where pursuant to a scheme for reconstruction/restructuring, an 'undertaking' is transferred or sold to another purchasing company or entity. The important point is that even after demerger; the transferring company would continue to exist and may do business.

Demerger is used as a suitable scheme in the following cases:

- Restructuring of an existing business
- Division of family-managed business
- Management 'buy-out'.

While under the Income tax Act there is recognition of demerger only for restructuring as provided for under sections 391 – 394 of the Companies Act, in a larger context, demerger can happen in other situations also.

Question 2

Explain the term 'Buy-Outs'.

Answer

A very important phenomenon witnessed in the Mergers and Acquisitions scene, in recent times is one of buy - outs. A buy-out happens when a person or group of persons gain control of a company by buying all or a majority of its shares. A buyout involves two entities, the acquirer and the target company. The acquirer seeks to gain controlling interest in the company being acquired normally through purchase of shares. There are two common types of buy-outs: Leveraged Buyouts (LBO) and Management Buy-outs

(MBO). LBO is the purchase of assets or the equity of a company where the buyer uses a significant amount of debt and very little equity capital of his own for payment of the consideration for acquisition. MBO is the purchase of a business by its management, who when threatened with the sale of its business to third parties or frustrated by the slow growth of the company, step-in and acquire the business from the owners, and run the business for themselves. The majority of buy-outs is management buy-outs and involves the acquisition by incumbent management of the business where they are employed. Typically, the purchase price is met by a small amount of their own funds and the rest from a mix of venture capital and bank debt.

Internationally, the two most common sources of buy-out operations are divestment of parts of larger groups and family companies facing succession problems. Corporate groups may seek to sell subsidiaries as part of a planned strategic disposal programme or more forced reorganisation in the face of parental financing problems. Public companies have, however, increasingly sought to dispose of subsidiaries through an auction process partly to satisfy shareholder pressure for value maximisation.

In recessionary periods, buy-outs play a big part in the restructuring of a failed or failing businesses and in an environment of generally weakened corporate performance often represent the only viable purchasers when parents wish to dispose of subsidiaries.

Buy-outs are one of the most common forms of privatisation, offering opportunities for enhancing the performances of parts of the public sector, widening employee ownership and giving managers and employees incentives to make best use of their expertise in particular sectors.

Question 3

What is take over by reverse bid?

Answer

Take Over by Reverse Bid: When the smaller company gains control of a larger one. Then it is called "Take-over by reverse bid". This concept has been successfully followed for revival of sick industries. The concept of take-over by reverse bid, or of reverse merger, is thus not the usual case of amalgamation of a sick unit which is non-viable with a healthy or prosperous unit but is a case whereby the entire undertaking of the healthy and prosperous company is to be merged and vested in the sick company which is non-viable. Under the Sick Industrial Companies (Special Provision) Act, 1985, a company becomes a sick industrial company when there is erosion of its net worth. This alternative is also known as taking over by reverse bid.

The three tests in a takeover by reverse bid that are required to be satisfied are, namely, (i) the assets of the transferor company are greater than the transferee company; (ii)

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equity capital to be issued by the transferee company pursuant to the acquisition exceeds its original issued capital, and (iii) the change of control in the transferee company will be through the introduction of minority holder or group of holders.

In reverse takeover control goes to the shareholders (and usually management) of the company that is formally the target of the bid.

The term reverse takeover is also applied to the purchase of a listed company by an unlisted company with control passing to the shareholders and management of the unlisted company. This is sometimes known as a 'back door listing'.

A reverse takeover will almost always take place by way of a pure equity acquisition, also called a share swap.

A reverse takeover for the purpose of obtaining a back door listing is accomplished by the shareholders of the unlisted company selling all of their shares to the listed company in exchange for shares of the listed company.

This is a cost effective method of obtaining a public listing because it avoids the expenses associated with floatation. Sometimes, the unlisted company usually takes over a listed company; a company i.e., listed but not actively traded on the stock exchange.

Question 4

Company X is contemplating the purchase of Company Y. Company X has 3,00,000 shares having a market price of Rs. 30 per share, while Company Y has 2,00,000 shares selling at Rs. 20 per share. The EPS are Rs. 4.00 and Rs. 2.25 for Company X and Y respectively. Managements of both companies are discussing two alternative proposals for exchange of shares as indicated below:

- (i) In proportion to the relative earnings per share of two companies.*
- (ii) 0.5 share of Company X for one share of Company Y (0.5 : 1).*

You are required:

- (i) To calculate the Earnings Per Share (EPS) after merger under two alternatives; and*
- (ii) To show the impact on EPS for the shareholders of two companies under both the alternatives.*

Answer

- (i) Mergers effect on EPS**

(Exchange ratio in proportion to relative EPS)

Management Accounting and Financial Analysis

(in Rs.)

Company	Existing No. Of shares	EPS	Total earnings
X	3,00,000	4.00	12,00,000
Y	2,00,000	2.25	<u>4,50,000</u>
		Total earnings	<u>16,50,000</u>

No. of shares after merger $3,00,000 + 1,12,500 = 4,12,500$

Note: 1,12,500 may be calculated as $\frac{2,00,000 \times 2.25}{4.00} = 1,12,500$

$$\text{EPS for Co X after merger} = \frac{16,50,000}{4,12,500} = \text{Rs. 4.00}$$

Equivalent EPS of Co. Y

Before merger Rs. 2.25

After merger (EPS before merger $\div$ Share exchange ratio on EPS basis)

$$2.25 \div .5625 = \text{Rs. 4.00}$$

Merger effect on EPS with share exchange ratio of 0.5 : 1

Total earnings after merger	Rs. 16,50,000
No. of shares post merger $(3,00,000 + 1,00,000 (.5 \times 2,00,000))$	4,00,000
EPS $16,50,000 \div 4,00,000$	4.125

(ii) Impact on EPS

Co. X' shareholders	Rs.
EPS before merger	4.00
EPS after merger i.e. $(16,50,000 \div 4,00,000)$	4.125
Increase in EPS	0.125

Co. Y' Shareholders	
Equivalent EPS before merger $2.25 \div 0.5$	4.5
EPS after the merger	4.125
Decrease in EPS	0.375

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Question 5

XYZ Ltd., is considering merger with ABC Ltd. XYZ Ltd.'s shares are currently traded at Rs. 20. It has 2,50,000 shares outstanding and its earnings after taxes (EAT) amount to Rs. 5,00,000. ABC Ltd., has 1,25,000 shares outstanding; its current market price is Rs. 10 and its EAT are Rs. 1,25,000. The merger will be effected by means of a stock swap (exchange). ABC Ltd., has agreed to a plan under which XYZ Ltd., will offer the current market value of ABC Ltd.'s shares:

- (i) What is the pre-merger earnings per share (EPS) and P/E ratios of both the companies?
- (ii) If ABC Ltd.'s P/E ratio is 6.4, what is its current market price? What is the exchange ratio? What will XYZ Ltd.'s post-merger EPS be?
- (iii) What should be the exchange ratio; if XYZ Ltd.'s pre-merger and post-merger EPS are to be the same?

Answer

- (i) Pre-merger EPS and P/E ratios of XYZ Ltd. and ABC Ltd.

Particulars	XYZ Ltd.	ABC Ltd.
Earnings after taxes	5,00,000	1,25,000
Number of shares outstanding	2,50,000	1,25,000
EPS	2	1
Market Price per share	20	10
P/E Ratio (times)	10	10

- (ii) Current Market Price of ABC Ltd. if P/E ratio is 6.4 = Rs. 1 × 6.4 = Rs. 6.40

$$\text{Exchange ratio} = \frac{\text{Rs. 20}}{6.40} = 3.125$$

Post merger EPS of XYZ Ltd.

$$\begin{aligned} &= \frac{\text{Rs. 5,00,000} + \text{Rs. 1,25,000}}{\text{Rs. 2,50,000} + (\text{Rs. 1,25,000}/3.125)} \\ &= \frac{\text{Rs. 6,25,000}}{\text{Rs. 2,90,000}} = 2.16 \end{aligned}$$

(iii) Desired Exchange Ratio

Total number of shares in post-merged company

$$= \frac{\text{Post-merger earnings}}{\text{Pre-merger EPS of XYZ Ltd}} = \frac{\text{Rs.6,25,000}}{2} = 3,12,500$$

Number of shares required to be issued

$$= 3,12,500 - 2,50,000 = 62,500$$

Therefore, the exchange ratio is

$$\frac{62,500}{1,25,000} = 0.50$$

Question 6

M Co. Ltd., is studying the possible acquisition of N Co. Ltd., by way of merger. The following data are available in respect of the companies:

Particulars	M Co. Ltd.	N Co. Ltd.
Earnings after tax (Rs.)	80,00,000	24,00,000
No. of equity shares	16,00,000	4,00,000
Market value per share (Rs.)	200	160

- If the merger goes through by exchange of equity and the exchange ratio is based on the current market price, what is the new earning per share for M Co. Ltd.?
- N Co. Ltd. wants to be sure that the earnings available to its shareholders will not be diminished by the merger. What should be the exchange ratio in that case?

Answer

(i) Calculation of new EPS of M Co. Ltd.

No. of equity shares to be issued by M Co. Ltd. to N Co. Ltd.

$$= 4,00,000 \text{ shares} \times \text{Rs. } 1.6/\text{Rs. } 2.0 = 3,20,000 \text{ shares}$$

Total no. of shares in M Co. Ltd. after acquisition of N Co. Ltd.

$$= 16,00,000 + 3,20,000 = 19,20,000$$

Total earnings after tax [after acquisition]

$$= 80,00,000 + 24,00,000 = 1,04,00,000$$

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$$\text{EPS} = \frac{\text{Rs. 1,04,00,000}}{19,20,000 \text{ equity shares}} = \text{Rs. 5.42}$$

- (ii) Calculation of exchange ratio which would not diminish the EPS of N Co. Ltd. after its merger with M Co. Ltd.

Current EPS:

$$\text{M Co. Ltd.} = \frac{\text{Rs. 80,00,000}}{16,00,000 \text{ equity shares}} = \text{Rs. 5}$$

$$\text{N Co. Ltd.} = \frac{\text{Rs. 24,00,000}}{4,00,000 \text{ equity shares}} = \text{Rs. 6}$$

$$\text{Exchange ratio} = 6/5 = 1.20$$

No. of new shares to be issued by M Co. Ltd. to N Co. Ltd.

$$= 4,00,000 \times 1.20 = 4,80,000 \text{ shares}$$

Total number of shares of M Co. Ltd. after acquisition

$$= 16,00,000 + 4,80,000 = 20,80,000 \text{ shares}$$

$$\text{EPS [after merger]} = \frac{\text{Rs. 1,04,00,000}}{20,80,000 \text{ shares}} = \text{Rs. 5}$$

Total earnings in M Co. Ltd. available to new shareholders of N Co. Ltd.

$$= 4,80,000 \times \text{Rs. 5} = \text{Rs. 24,00,000}$$

Recommendation: The exchange ratio (6 for 5) based on market shares is beneficial to shareholders of 'N' Co. Ltd.

Question 7

ABC Ltd. is intending to acquire XYZ Ltd. by merger and the following information is available in respect of the companies:

	ABC Ltd.	XYZ Ltd.
Number of equity shares	10,00,000	6,00,000
Earnings after tax (Rs.)	50,00,000	18,00,000
Market value per share (Rs.)	42	28

Required:

- (i) What is the present EPS of both the companies?

- (ii) If the proposed merger takes place, what would be the new earning per share for ABC Ltd.? Assume that the merger takes place by exchange of equity shares and the exchange ratio is based on the current market price.
- (iii) What should be exchange ratio, if XYZ Ltd. wants to ensure the earnings to members are as before the merger takes place?

Answer

- (i) Earnings per share = Earnings after tax /No. of equity shares
 ABC Ltd. = Rs. 50,00,000/10,00,000 = Rs. 5
 XYZ Ltd. = Rs. 18,00,000 / 6,00,000 = Rs. 3
- (ii) Number of Shares XYZ limited's shareholders will get in ABC Ltd. based on market value per share = Rs. 28/ 42 ´ 6,00,000 = 4,00,000 shares
 Total number of equity shares of ABC Ltd. after merger = 10,00,000 + 4,00,000 = 14,00,000 shares
 Earnings per share after merger = Rs. 50,00,000 + 18,00,000/14,00,000 = Rs. 4.86
- (iii) Calculation of exchange ratio to ensure shareholders of XYZ Ltd. to earn the same as was before merger:
 Shares to be exchanged based on EPS = (Rs. 3/Rs. 5) ´ 6,00,000 = 3,60,000 shares
 EPS after merger = (Rs. 50,00,000 + 18,00,000)/13,60,000 = Rs. 5
 Total earnings in ABC Ltd. available to shareholders of XYZ Ltd. = 3,60,000 ´ Rs. 5 = Rs. 18,00,000.
 Exchange ratio based on market price is beneficial to shareholders of XYZ Ltd. because of higher Earnings available to them i.e. (4,00,000 shares ´ Rs. 4.86 = Rs. 19,44,000).

Question 8

The following information is provided related to the acquiring Firm Mark Limited and the target Firm Mask Limited:

	Firm Mark Limited	Firm Mask Limited
Earning after tax (Rs.)	2,000 lakhs	400 lakhs
Number of shares outstanding	200 lakhs	100 lakhs
P/E ratio (times)	10	5

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Required:

- (i) What is the Swap Ratio based on current market prices?
- (ii) What is the EPS of Mark Limited after acquisition?
- (iii) What is the expected market price per share of Mark Limited after acquisition, assuming P/E ratio of Mark Limited remains unchanged?
- (iv) Determine the market value of the merged firm.
- (v) Calculate gain/loss for shareholders of the two independent companies after acquisition.

Answer

Particulars	Mark Ltd.	Mask Ltd.
EPS	Rs. 2,000 Lakhs/ 200 lakhs = Rs. 10	Rs. 400 lakhs / 100 lakhs Rs. 4
Market Price	Rs. 10 × 10 = Rs. 100	Rs. 4 × 5 = Rs. 20
(i)	The Swap ratio based on current market price is Rs. 20 / Rs. 100 = 0.2 or 1 share of Mark Ltd. for 5 shares of Mask Ltd. No. of shares to be issued = Rs. 100 lakh × 0.2 = Rs. 20 lakhs.	
(ii)	EPS after merger $= \frac{\text{Rs. 2,000 lakhs} + \text{Rs. 400 lakhs}}{200 \text{ lakhs} + 20 \text{ lakhs}}$ = Rs. 10.91	
(iii)	Expected market price after merger assuming P / E 10 times. = Rs. 10.91 × 10 = Rs. 109.10	
(iv)	Market value of merged firm = Rs. 109.10 market price × 220 lakhs shares = 240.02 crores	
(v)	Gain from the merger Post merger market value of the merged firm Rs. 240.02 crores Less: Pre-merger market value Mark Ltd. 200 Lakhs × Rs. 100 = 200 crores Mask Ltd. 100 Lakhs × Rs. 20 = 20 crores Rs. 220.00 crores Gain from merger Rs. 20.02 crores	

Appropriation of gains from the merger among shareholders:

	Mark Ltd.	Mask Ltd.
Post merger value	218.20 crores	21.82 crores
Less: Pre-merger market value	200.00 crores	20.00 crores
Gain to Shareholders	18.20 crores	1.82 crores

Question 9

The following information is provided relating to the acquiring company Efficient Ltd. and the target Company Healthy Ltd.

	Efficient Ltd.	Healthy Ltd.
No. of shares (F.V. Rs. 10 each)	10.00 lakhs	7.5 lakhs
Market capitalization	500.00 lakhs	750.00 lakhs
P/E ratio (times)	10.00	5.00
Reserves and Surplus	300.00 lakhs	165.00 lakhs
Promoter's Holding (No. of shares)	4.75 lakhs	5.00 lakhs

Board of Directors of both the Companies have decided to give a fair deal to the shareholders and accordingly for swap ratio the weights are decided as 40%, 25% and 35% respectively for Earning, Book Value and Market Price of share of each company:

- Calculate the swap ratio and also calculate Promoter's holding % after acquisition.
- What is the EPS of Efficient Ltd. after acquisition of Healthy Ltd.?
- What is the expected market price per share and market capitalization of Efficient Ltd. after acquisition, assuming P/E ratio of Firm Efficient Ltd. remains unchanged.
- Calculate free float market capitalization of the merged firm.

Answer

Swap Ratio	Efficient Ltd.	Healthy Ltd.
Market capitalisation	500 lakhs	750 lakhs
No. of shares	10 lakhs	7.5 lakhs
Market Price per share	Rs. 50	Rs. 100
P/E ratio	10	5
EPS	Rs. 5	Rs. 20
Profit	Rs. 50 lakh	Rs. 150 lakh

Strategic Financial Management

Share capital	Rs. 100 lakh	Rs. 75 lakh
Reserves and surplus	Rs. 300 lakh	Rs. 165 lakh
Total	Rs. 400 lakh	Rs. 240 lakh
Book Value per share	Rs. 40	Rs. 32

(i) Calculation of Swap Ratio

EPS	1 : 4 i.e.	4.0 ´ 40%	1.6
Book value	1 : 0.8 i.e.	0.8 ´ 25%	0.2
Market price	1 : 2 i.e.	2.0 ´ 35%	0.7
		Total	2.5

Swap ratio is for every one share of Healthy Ltd., to issue 2.5 shares of Efficient Ltd. Hence, total no. of shares to be issued $7.5 \text{ lakh} \times 2.5 = 18.75 \text{ lakh shares}$

Promoter's holding = 4.75 lakh shares + $(5 \times 2.5 = 12.5 \text{ lakh shares}) = 17.25 \text{ lakh i.e.}$
Promoter's holding % is $(17.25 \text{ lakh} / 28.75 \text{ lakh}) \times 100 = 60\%$.

Calculation of EPS, Market price, Market capitalization and free float market capitalization.

(ii)	Total No. of shares	10 lakh + 18.75 lakh = 28.75 lakh
	Total capital	100 lakh + 187.5 lakh = Rs. 287.5 lakh
	EPS	$\frac{\text{Total profit}}{\text{No. of shares}} = \frac{50 \text{ lakh} + 150 \text{ lakh}}{28.75 \text{ lakh}} = \frac{200}{28.75}$ = Rs. 6.956
(iii)	Expected market price	EPS 6.956 ´ P/E 10 = Rs. 69.56
	Market capitalization	= Rs. 69.56 per share ´ 28.75 lakh shares = Rs. 1,999.85 lakh
(iv)	Free float of market capitalization	= Rs. 69.56 per share ´ (28.75 lakh ´ 40%) = Rs. 799.94 lakh

Question 10

The following information is relating to Fortune India Ltd. having two division, viz. Pharma Division and Fast Moving Consumer Goods Division (FMCG Division). Paid up share capital of Fortune India Ltd. is consisting of 3,000 Lakhs equity shares of Re. 1 each.

Fortune India Ltd. decided to de-merge Pharma Division as Fortune Pharma Ltd. w.e.f. 1.4.2009. Details of Fortune India Ltd. as on 31.3.2009 and of Fortune Pharma Ltd. as on 1.4.2009 are given below:

<i>Particulars</i>	<i>Fortune Pharma Ltd. Rs.</i>	<i>Fortune India Ltd. Rs.</i>
<i>Outside Liabilities</i>		
<i>Secured Loans</i>	<i>400 lakh</i>	<i>3,000 lakh</i>
<i>Unsecured Loans</i>	<i>2,400 lakh</i>	<i>800 lakh</i>
<i>Current Liabilities & Provisions</i>	<i>1,300 lakh</i>	<i>21,200 lakh</i>
<i>Assets</i>		
<i>Fixed Assets</i>	<i>7,740 lakh</i>	<i>20,400 lakh</i>
<i>Investments</i>	<i>7,600 lakh</i>	<i>12,300 lakh</i>
<i>Current Assets</i>	<i>8,800 lakh</i>	<i>30,200 lakh</i>
<i>Loans & Advances</i>	<i>900 lakh</i>	<i>7,300 lakh</i>
<i>Deferred tax/Misc. Expenses</i>	<i>60 lakh</i>	<i>(200) lakh</i>

Board of Directors of the Company have decided to issue necessary equity shares of Fortune Pharma Ltd. of Re. 1 each, without any consideration to the shareholders of Fortune India Ltd. For that purpose following points are to be considered:

- 1. Transfer of Liabilities & Assets at Book value.*
- 2. Estimated Profit for the year 2009-10 is Rs. 11,400 Lakh for Fortune India Ltd. & Rs. 1,470 lakhs for Fortune Pharma Ltd.*
- 3. Estimated Market Price of Fortune Pharma Ltd. is Rs. 24.50 per share.*
- 4. Average P/E Ratio of FMCG sector is 42 & Pharma sector is 25, which is to be expected for both the companies.*

Calculate:

- 1. The Ratio in which shares of Fortune Pharma are to be issued to the shareholders of Fortune India Ltd.*
- 2. Expected Market price of Fortune India Ltd.*
- 3. Book Value per share of both the Companies immediately after Demerger.*

Strategic Financial Management

Answer

Share holders' funds

<i>Particulars</i>	<i>Fortune India Ltd.</i>	<i>Fortune Pharma Ltd.</i>	<i>Fortune India (FMCG) Ltd.</i>
Assets	70,000	25,100	44,900
Outside liabilities	<u>25,000</u>	<u>4,100</u>	<u>20,900</u>
Net worth	<u>45,000</u>	<u>21,000</u>	<u>24,000</u>

1. Calculation of Shares of Fortune Pharma Ltd. to be issued to shareholders of Fortune India Ltd.

	<i>Fortune Pharma Ltd.</i>
Estimated Profit (Rs. in lakhs)	1,470
Estimated market price (Rs.)	24.5
Estimated P/E	25
Estimated EPS (Rs.)	0.98
No. of shares lakhs	1,500

Hence, Ratio is 1 share of Fortune Pharma Ltd. for 2 shares of Fortune India Ltd.

2. Expected market price of Fortune India Ltd.

	<i>Fortune India (FMCG) Ltd.</i>
Estimated Profit (Rs. in lakhs)	11,400
No. of equity shares (Rs. in lakhs)	3,000
Estimated EPS (Rs.)	3.8
Estimated P/E	42
Estimated market price (Rs.)	159.6

3. Book value per share

	<i>Fortune Pharma Ltd.</i>	<i>Fortune India (FMCG) Ltd.</i>
Net worth (Rs.in lakhs)	21,000	24,000
No. of shares (Rs. in lakhs)	1,500	3,000
Book value of shares	Rs. 14	Rs. 8

Question 11

Reliable Industries Ltd. (RIL) is considering a takeover of Sunflower Industries Ltd. (SIL). The particulars of 2 companies are given below:

<i>Particulars</i>	<i>Reliable Industries Ltd</i>	<i>Sunflower Industries Ltd.</i>
<i>Earnings After Tax (EAT)</i>	<i>Rs.20,00,000</i>	<i>Rs.10,00,000</i>
<i>Equity shares O/s</i>	<i>10,00,000</i>	<i>10,00,000</i>
<i>Earnings per share (EPS)</i>	<i>2</i>	<i>1</i>
<i>PE Ratio (Times)</i>	<i>10</i>	<i>5</i>

Required:

- (i) What is the market value of each Company before merger?*
- (ii) Assume that the management of RIL estimates that the shareholders of SIL will accept an offer of one share of RIL for four shares of SIL. If there are no synergic effects, what is the market value of the Post-merger RIL? What is the new price per share? Are the shareholders of RIL better or worse off than they were before the merger?*
- (iii) Due to synergic effects, the management of RIL estimates that the earnings will increase by 20%. What are the new post-merger EPS and Price per share? Will the shareholders be better off or worse off than before the merger?*

Answer

- (i) Market value of Companies before Merger**

<i>Particulars</i>	<i>RIL</i>	<i>SIL</i>
<i>EPS</i>	<i>Rs.2</i>	<i>Re.1</i>
<i>P/E Ratio</i>	<i>10</i>	<i>5</i>
<i>Market Price Per Share</i>	<i>Rs.20</i>	<i>Rs.5</i>
<i>Equity Shares</i>	<i>10,00,000</i>	<i>10,00,000</i>
<i>Total Market Value</i>	<i>2,00,00,000</i>	<i>50,00,000</i>

- (ii) Post Merger Effects on RIL**

	<i>Rs.</i>
<i>Post merger earnings</i>	<i>30,00,000</i>
<i>Exchange Ratio (1:4)</i>	

Strategic Financial Management

No. of equity shares o/s (10,00,000 + 2,50,000)	12,50,000
EPS: 30,00,000/12,50,000	2.4
Market Price per share	10.00
Market Value 10 x 2.4	24
Total Value (12,50,000 x 24)	3,00,00,000
Gains From Merger:	Rs.
Post-Merger Market Value of the Firm	3,00,00,000
Less: Pre-Merger Market Value	
RIL 2,00,00,000	
SIL <u>50,00,000</u>	<u>2,50,00,000</u>
Total gains from Merger	<u>50,00,000</u>

Apportionment of Gains between the Shareholders:

<i>Particulars</i>	<i>RIL</i>	<i>SIL</i>
<i>Post Merger Market Value:</i>	<i>Rs.</i>	<i>Rs.</i>
10,00,000 x 24	2,40,00,000	--
2,50,000 x 24	-	60,00,000
Less: Pre-Merger Market Value	2,00,00,000	50,00,000
Gains from Merger:	40,00,000	10,00,000

Thus, the shareholders of both the companies (RIL + SIL) are better off than before

(iii) Post-Merger Earnings:

Increase in Earnings by 20%

New Earnings: Rs.30,00,000 x 20% = Rs.36,00,000

No. of equity shares outstanding: 12,50,000

EPS: Rs. 36,00,000/12,50,000 = Rs.2.88

PE Ratio = 10

Market Price Per Share:

= Rs.2.88 x 10 = Rs.28.80

\ Shareholders will be better-off than before the merger situation.

Question 12

AB Ltd., is planning to acquire and absorb the running business of XY Ltd. The valuation is to be based on the recommendation of merchant bankers and the consideration is to be discharged in the form of equity shares to be issued by AB Ltd. As on 31.3.2006, the paid up capital of AB Ltd. consists of 80 lakhs shares of Rs.10 each. The highest and the lowest market quotation during the last 6 months were Rs.570 and Rs.430. For the purpose of the exchange, the price per share is to be reckoned as the average of the highest and lowest market price during the last 6 months ended on 31.3.06.

XY Ltd.'s Balance Sheet as at 31.3.2006 is summarised below:

	Rs. lakhs
Sources	
Share Capital	
20 lakhs equity shares of Rs.10 each fully paid	200
10 lakhs equity shares of Rs.10 each, Rs.5 paid	50
Loans	100
Total	350
Uses	
Fixed Assets (Net)	150
Net Current Assets	200
	350

An independent firm of merchant bankers engaged for the negotiation, have produced the following estimates of cash flows from the business of XY Ltd.:

Year ended	By way of	Rs. lakhs
31.3.07	after tax earnings for equity	105
31.3.08	do	120
31.3.09	Do	125
31.3.10	Do	120
31.3.11	Do	100
	terminal value estimate	200

It is the recommendation of the merchant banker that the business of XY Ltd. may be valued on the basis of the average of (i) Aggregate of discounted cash flows at 8% and (ii) Net assets value. Present value factors at 8% for years

1-5:	0.93	0.86	0.79	0.74	0.68
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Strategic Financial Management

You are required to:

- (i) Calculate the total value of the business of XY Ltd.
- (ii) The number of shares to be issued by AB Ltd.; and
- (iii) The basis of allocation of the shares among the shareholders of XY Ltd.

Answer

Price/share of AB Ltd. for determination of number of shares to be issued:

(Rs.570 + Rs.430)/2	Rs.	500
Value of XY Ltd based on future cash flow capitalization (105×0.93)+(120×0.86)+(125×0.79)+(120×0.74)×(300×0.68)	Rs. lakhs	592.40
Value of XY Ltd based on net assets	Rs. lakhs	250.00
Average value (592.4+250)/2		421.20
No. of shares in AB Ltd to be issued 42120000/500	Nos.	84240
Basis of allocation of shares		
Fully paid equivalent shares in XY Ltd. (20+5) lakhs		2500000
Distribution to fully paid shareholders 84240×20/25		67392
Distribution to partly paid shareholders 84240-67392		16848

Question 13

AFC Ltd. wishes to acquire BCD Ltd. The shares issued by the two companies are 10,00,000 and 5,00,000 respectively:

- (i) Calculate the increase in the total value of BCD Ltd. resulting from the acquisition on the basis of the following conditions:

Current expected growth rate of BCD Ltd.	7%
Expected growth rate under control of AFC Ltd., (without any additional capital investment and without any change in risk of operations)	8%
Current Market price per share of AFC Ltd.	Rs. 100
Current Market price per share of BCD Ltd.	Rs. 20
Current Dividend per share of BCD Ltd.	Re. 0.60

- (ii) On the basis of aforesaid conditions calculate the gain or loss to shareholders of both the companies, if AFC Ltd. were to offer one of its shares for every four shares of BCD Ltd.
- (iii) Calculate the gain to the shareholders of both the Companies, if AFC Ltd. pays Rs.22 for each share of BCD Ltd., assuming the P/E Ratio of AFC Ltd. does not change after the merger. EPS of AFC Ltd. is Rs.8 and that of BCD is Rs.2.50. It is assumed that AFC Ltd. invests its cash to earn 10%.

Answer

- (i) For BCD Ltd., before acquisition

The cost of capital of BCD Ltd. may be calculated by using the following formula:

$$\frac{\text{Dividend}}{\text{Price}} + \text{Growth\%}$$

Cost of Capital i.e., $K_e = (0.60/20) + 0.07 = 0.10$

After acquisition g (i.e. growth) becomes 0.08

Therefore, price per share after acquisition = $0.60/(0.10-0.08) = \text{Rs.}30$

The increase in value therefore is = $\text{Rs.}(30-20) \times 5,00,000 = \text{Rs.}50,00,000/-$

- (ii) To share holders of BCD Ltd. the immediate gain is $\text{Rs.}100 - \text{Rs.}20 \times 4 = \text{Rs.}20$ per share

The gain can be higher if price of shares of AFC Ltd. rise following merger which they should undertake.

To AFC Ltd. shareholders	<u>(Rs. (In lakhs))</u>
Value of Company now	1,000
Value of BCD Ltd.	<u>150</u>
	1,150
No. of shares	11.25
\ Value per share	1150/11.25= Rs.102.22

Gain to shareholders of BCD Ltd. = $\text{Rs.}102.22 - \text{Rs.}(4 \times 20) = \text{Rs.}22.22$

Gain to shareholders of AFC Ltd. = $\text{Rs.}102.22 - \text{Rs.}100.00 = \text{Rs.}2.22$

Strategic Financial Management

(iii) Gain to shareholders of AFC Ltd:-

Earnings of BCD Ltd. (5,00,000 x 2.50) = Rs.12,50,000/-

Less: Loss of earning in cash Rs.11,00,000/-

(5,00,000/- x 22 x 0.10)

Net Earning Rs.1,50,000/-

Number of shares 10,00,000

Net increase in earning per share 0.15

P/E ratio of AFC Ltd. = $100/8 = 12.50$

Therefore, Gain per share of shareholders of AFC Ltd.

= $0.15 \times 12.50 = \text{Rs.}1.88$

Gain to the shareholders of BCD Ltd. Rs. (22-20) = Rs.2/- per share

Question 14

A Ltd. wants to acquire T Ltd. and has offered a swap ratio of 1:2 (0.5 shares for every one share of T Ltd.). Following information is provided:

	A Ltd.	T. Ltd.
Profit after tax	Rs.18,00,000	Rs.3,60,000
Equity shares outstanding (Nos.)	6,00,000	1,80,000
EPS	Rs.3	Rs.2
PE Ratio	10 times	7 times
Market price per share	Rs.30	Rs.14

Required:

- The number of equity shares to be issued by A Ltd. for acquisition of T Ltd.*
- What is the EPS of A Ltd. after the acquisition?*
- Determine the equivalent earnings per share of T Ltd.*
- What is the expected market price per share of A Ltd. after the acquisition, assuming its PE multiple remains unchanged?*
- Determine the market value of the merged firm.*

Answer

- (a) (i) The number of shares to be issued by A Ltd.:

The Exchange ratio is 0.5

So, new Shares = 1,80,000 x .5 =
90,000 shares.

- (ii) EPS of A Ltd. After a cquisition:

Total Earnings	(18,00,000+3,60,000)	Rs.21,60,000
No. of Shares	(6,00,000 + 90,000)	6,90,000
EPS	(21,60,000)/6,90,000)	Rs.3.13

- (iii) Equivalent EPS of T Ltd.:

No. of new Shares	0.5
EPS	Rs.3.13
Equivalent EPS (3.13 x .5)	Rs.1.57

- (iv) New Market Price of A Ltd. (P/E remaining unchanged):

Present P/E Ratio of A Ltd.	10 times
Expected EPS after merger	Rs.3.13
Expected Market Price (3.13 x 10)	Rs.31.30

- (v) Market Value of merged firm:

Total number of Shares	6,90,000
Expected Market Price	Rs.31.30
Total value (6,90,000 x 31.30)	Rs.2,15,97,000

Strategic Financial Management

Question 15

BA Ltd. and DA Ltd. both the companies operate in the same industry. The Financial statements of both the companies for the current financial year are as follows:

Balance Sheet

Particulars	BA Ltd. (Rs.)	DA Ltd. (Rs.)
Current Assets	14,00,000	10,00,000
Fixed Assets (Net)	<u>10,00,000</u>	<u>5,00,000</u>
Total (Rs.)	<u>24,00,000</u>	<u>15,00,000</u>
Equity capital (Rs.10 each)	10,00,000	8,00,000
Retained earnings	2,00,000	--
14% long-term debt	5,00,000	3,00,00
Current liabilities	<u>7,00,000</u>	<u>4,00,000</u>
Total (Rs.)	<u>24,00,000</u>	<u>15,00,000</u>

Income Statement

	BA Ltd. (Rs.)	DA Ltd. (Rs.)
Net Sales	34,50,000	17,00,000
Cost of Goods sold	<u>27,60,000</u>	<u>13,60,000</u>
Gross profit	6,90,000	3,40,000
Operating expenses	2,00,000	1,00,000
Interest	70,000	42,000
Earnings before taxes	4,20,000	1,98,00
Taxes @ 50%	<u>2,10,000</u>	<u>99,000</u>
Earnings after taxes (EAT)	<u>2,10,000</u>	<u>99,000</u>
Additional Information :		
No. of Equity shares	1,00,000	80,000
Dividend payment ratio (D/P)	40%	60%
Market price per share	Rs.40	Rs.15

Assume that both companies are in the process of negotiating a merger through an exchange of equity shares. You have been asked to assist in establishing equitable exchange terms and are required to:

- (i) Decompose the share price of both the companies into EPS and P/E components; and also segregate their EPS figures into Return on Equity (ROE) and book value/intrinsic value per share components.
- (ii) Estimate future EPS growth rates for each company.
- (iii) Based on expected operating synergies BA Ltd. estimates that the intrinsic value of DA's equity share would be Rs.20 per share on its acquisition. You are required to develop a range of justifiable equity share exchange ratios that can be offered by BA Ltd. to the shareholders of DA Ltd. Based on your analysis in part (i) and (ii), would you expect the negotiated terms to be closer to the upper, or the lower exchange ratio limits and why?
- (iv) Calculate the post-merger EPS based on an exchange ratio of 0.4: 1 being offered by BA Ltd. and indicate the immediate EPS accretion or dilution, if any, that will occur for each group of shareholders.
- (v) Based on a 0.4: 1 exchange ratio and assuming that BA Ltd.'s pre-merger P/E ratio will continue after the merger, estimate the post-merger market price. Also show the resulting accretion or dilution in pre-merger market prices.

Answer

Market price per share (MPS) = EPS SP/E ratio or P/E ratio = MPS/EPS

- (i) Determination of EPS, P/E ratio, ROE and BVPS of BA Ltd. and DA Ltd.

		BA Ltd.	DA Ltd.
Earnings After Tax	(EAT)	210000	99000
No. of Shares	(N)	100000	80000
EPS	(EAT/N)	2.1	1.2375
Market price per share	(MPS)	40	15
P/E Ratio	(MPS/EPS)	19.05	12.12
Equity Funds	(EF)	1200000	800000
BVPS	(EF/N)	12	10
ROE	(EAT/EF) × 100	17.50%	12.37%

Strategic Financial Management

(ii) Estimation of growth rates in EPS for BA Ltd. and DA Ltd.

Retention Ratio	(1-D/P ratio)	0.6	0.4
Growth Rate	(ROE × Retention Ratio)	10.50%	4.95%

(iii) Justifiable equity shares exchange ratio

- (a) Intrinsic value based = Rs.20 / Rs.40 = 0.5:1 (upper limit)
- (b) Market price based = MPS_b/MPS_a = Rs.15 / Rs.40 = 0.375:1 (lower limit)

Since, BA Ltd. has a higher EPS, ROE, P/E ratio and even higher EPS growth expectations, the negotiable terms would be expected to be closer to the lower limit, based on the existing share prices.

(iv) Calculation of post merger EPS and its effects

Particulars			BA Ltd.	DA Ltd.	Combined
EAT	(Rs.)	(i)	210000	99000	309000
Share outstanding		(ii)	100000	80000	132000*
EPS	(Rs.)	(i) / (ii)	2.1	1.2375	2.341
EPS Accretion (Dilution)	(Re.)		0.241	(0.301***)	

(v) Estimation of Post merger Market price and other effects

Particulars			BA Ltd.	DA Ltd.	Combined
EPS	(Rs.)	(i)	2.1	1.2375	2.341
P/E Ratio		(ii)	19.05	12.12	19.05
MPS	(Rs.)	(i) / (ii)	40	15	44.6
MPS Accretion	(Rs.)		4.6	2.84***	

* Shares outstanding (combined) = 100000 shares + (.40 × 80000) = 132000 shares

** EPS claim per old share = Rs.2.34 × .04 = Re.0.936

EPS dilution = Rs.1.2375 – Re.0.936 = Re.0.3015

***S claim per old share (Rs.44.60 × 0.4) = 17.84

Less: MPS and per old share 15.00
2.84

EXERCISES

Question 1

Fuller Plc. is intending to acquire Felicy Plc. by merger and the following information is available in respect of the companies:

	<i>Fuller Plc.</i>	<i>Felicy Plc.</i>
<i>Number of equity shares</i>	<i>1,00,000</i>	<i>60,000</i>
<i>Earnings after tax (£)</i>	<i>5,00,000</i>	<i>1,80,000</i>
<i>Market value per share (£)</i>	<i>42</i>	<i>28</i>

Required:

- (i) What is the present EPS of both the companies?
- (ii) If the proposed merger takes place, what would be the new earning per share for Fuller Plc.? Assume that the merger takes place by exchange of equity shares and the exchange ratio is based on the current market price.

(Answer: (i) Fuller Plc. = £ 5 and Felicy Plc.= £ 3 (ii) £ 4.86)

Question 2

Cool-cool Ltd. makes thermal clothing for winter sports and outdoor work, and is considering acquiring Sking Shell Ltd. which manufactures and sells ski clothing. Sking Shell is about one quarter of Frozen's size and manufactures its entire product line in a small rented factory on a mountaintop in Manali. It costs about Rs.10,00,000 a year in overhead to operate in the factory. Cool-cool Ltd. produces its output in a less popular in North but more popular north-east locations. Its factory has at least 50% excess capacity. Cool-cool's plan is to acquire Sking Shell, and combine production operations in its north-eastern factory, but otherwise run the companies separately.

Sking Shell's beta is 2.0, Treasury bills currently yield 5% and the Nifty Index is yielding 9%. The corporate income tax rate for both firms is 40%. Because Sking Shell will no longer be maintaining its own production facilities, it can be assumed that only a minimal amount of cash will have to be reinvested to keep its equipment current and for future growth. This amount is estimated at Rs. 1,00,000 per year. Selected financial information for Sking Shell is as follows:

Revenue	Rs. 1,25,00,000
EAT	Rs. 13,00,000
Depreciation	Rs. 6,00,000

Strategic Financial Management

- (a) Calculate the appropriate discount rate for evaluating the Sking Shell acquisition.
- (b) Determine the annual cash flow expected by Cool-cool Ltd. from Sking Shell if the acquisition is made (don't forget to include the synergy).
- (c) Calculate the value of the acquisition to Cool-cool Ltd. assuming the benefits last for (1) five years, (2) 10 years, and (3) 15 years.
- (d) Sking Shell has 2,50,000 shares of stock outstanding. Calculate the maximum price Cool-cool Ltd. should be willing to pay per share to acquire the firm under the three assumptions in part c.
- (e) If Cool-cool Ltd. is willing to assume the benefits of the Sking Shell acquisition will last indefinitely but not grow, what should it be willing to pay per share?

(Answer: (a) 13% (b) Rs. 2,400,000 (c) (1) Rs.8,441,000 (2) Rs.13,023,000
(3) Rs.15,510,000 (d) (1) Rs. 33.76 (2) Rs. 52.09 (3) Rs. 62.04 (e) Rs.73.85)

Question 3

In above question , assume that the cash flow from the Sking Shell acquisition grows at 10% from its initial value for one year and then grows at 5% indefinitely (starting in the third year). Calculate the value of the firm and the implied stock price under these conditions. Use a terminal value at the beginning of the period of 5% growth. What price premium is implied in dollars and as a percent of market price if Sking Shell's stock is currently selling at Rs. 62?

(Answer: 102.10% of market price)