

UNIT – I

FINANCIAL POLICY AND STRATEGIC PLANNING

Today most business enterprises engage in strategic planning, although the degrees of sophistication and formality vary considerably. Conceptually, Strategic Planning is deceptively simple:

Analyze the current and expected future situation, determine the direction of the firm, and develop means for achieving the mission.

In reality, this is an extremely complex process which demands a systematic approach for identifying and analyzing factors external to the organization and matching them with the firm's capabilities. Planning is done in an environment of uncertainty. No one can be sure what the external as well as the internal environment will be even next week, much less several years from now: Therefore, people make assumptions or forecasts about the anticipated environment. Some of the forecasts become assumptions for other plans. For example, the gross national product forecast becomes the assumption for sales planning, which in turn becomes the basis for production planning and so on. Strategies and policies are closely related. Both give direction, both are the frame work for plans, both are the basis of operational plans, and both affect all areas of managing.

Strategy and Policy The term —Strategy (which is derived from the Greek word strategies, meaning “general”)has been used in different ways. Authors differ in at least one major aspect about strategies. Some writers focus on both the end points (purpose, mission, goals, objectives) and the means of achieving them (policies and plans). Others emphasize the means to the ends in the strategic process rather than the ends per se. Policies are general statements or understandings which guide managers thinking in decision making. They ensure that decisions fall within certain boundaries. They usually do not require action but are intended to guide managers in their commitment to the decision they ultimately make. The essence of policy is discretion. Strategy on the other hand, concerns the direction in which human and material resources will be applied in order to increase the chance of achieving selected objectives.

The Strategic Planning Process Although Specific steps in the formulation of the strategy may vary, the process can be built, at least conceptually, around the key elements shown in Figure given below:

Inputs The various organizational inputs are the goal inputs of the claimants, **Enterprise Profile** The enterprise profile is usually the starting point for determining where the company is and where it should go. Thus, top managers determine the basic purpose of the enterprises and clarify the firm's geographic orientation, such as whether it should operate in selected regions, in all states in the United States, or even in different countries . In addition, managers assess the competitive situation of their firm.

Orientation of Top Managers The enterprise profile is shaped by people, especially top managers, and their orientation is important for formulating the strategy. They set the organizational climate, and they determine the direction of the firm. Consequently, there values, their preferences, and their attitudes toward risks have to be carefully examined because they have an impact on the strategy.

Purpose and Objectives The purpose and the major objectives are the end points towards which the activities of the enterprise are directed. Since the previous chapter dealt with these topics at length, additional discussion here is unnecessary.

External Environment The present and future external environment must be assessed in terms of threats and opportunities. The evaluation focuses on economic, social, political, legal, demographic, and geographic factors. In addition, the

environment is scanned for technological developments, for products and services on the market, and for other factors necessary in determining the competitive situation of the enterprises. Internal Environment Similarly the firms internal environment should be audited and evaluated in respect to its weaknesses and strengths in research and development, production, operations, procurement, marketing, and products and services. Other internal factors important for formulating a strategy include that the assessment of human resources , financial resources, and other factors such as the company image, the organization structure and climate, the planning and control system, and relations with customers. Alternative Strategies Strategies alternatives are developed on the basis of an analysis of the external and internal environment. An organization may pursue many different kinds of strategies . It may specialize or concentrate, as the Korean Hyundai company did by producing lower-priced cars (in contrast to General Motors, for example, which has a complete product line ranging from inexpensive to luxurious cars). Alternatively, a firm may diversify, extending the operation into new and profitable markets. Sears not only is in retailing but also provides many financial services. Still another strategy is to go international and expand the operation into other countries. The multinational firms provide many examples. The same chapter also examines joint ventures, which may be an appropriate strategy for some firms have to pool their resources, as illustrated by the joint venture of General Motors and Toyota to produce small cars in California. Under certain circumstances, a company may have to adopt a liquidation strategy by terminating an unprofitable product line or even dissolving the firm. But in some cases liquidation may not be necessary and a retrenchment strategy may be appropriate. In such a situation the company may curtail its operation temporarily. These are just a few examples of possible strategies. In practice, companies, especially large ones, pursue a combination of strategies. Evaluation and Choice of Strategies The various strategies have to be carefully evaluated before the choice is made. Strategic choices must be considered in light of the risks involved in a particular decision. Some profitable opportunities may not be pursued because a failure in a risky venture could result in bankruptcy of the firm. Another critical element in choosing a strategy is timing. Even the best product may fail if it is introduced to the market at an inappropriate time. Moreover, the reaction of competitors must be taken into consideration. When IBM reduced its price of the PC computer in reaction to the sales success of Apple's Macintosh computer, firms producing IBM-compatible computers had little choice but to reduce their prices as well. This illustrates the interconnection of the strategies of several firms in the same industry. Medium – and Short-Range Planning, Implementation, and Control Although not a part of the strategic planning process and short-range planning as well as the implementation of the plans must be considered during all phases of the process. Control must also be provided for monitoring performance against plans. The importance of feedback is shown by the loops in the model. Consistency and contingency The last key aspect of the strategic planning process is testing for consistency the preparing for contingency plans.

MAJOR KINDS OF STRATEGIES AND POLICIES:

For a business enterprise and, with some modification, for other kinds of organizations as well, the major strategies and policies that give an overall direction to operations are likely to be in the following areas.

Growth strategies give answers to such questions as these: How much growth should occur? How fast? Where? How should it occur? Finance Every business enterprise and, for that

matter, any non business enterprise must have a clear strategy for financing its operations. There are various ways of doing this and usually many serious limitations.

Organisational strategy has to do with the type of organizational pattern an enterprise will use. It answers practical questions. For example, how centralized or decentralized should decision-making authority be? What kinds of departmental patterns are most suitable? How should staff positions be designed? Naturally, organization structures furnish the system of roles and role relationships that help people accomplish objectives. Personnel There can be many major strategies in the area of human resources and relationships. They deal with such topics as union relations. Compensation, selection, hiring, training, and appraisal, as well as with special areas such as job enrichment. Public Relations Strategies in this area can hardly be independent; they must support other major strategies and efforts. They must also be designed in the light of the company's type of business, its closeness to the public, and its susceptibility to regulation by government agencies. In any area, strategies can be developed only if the right questions are asked. While no set of strategies can be formulated that will fit all organizations and situations, certain key questions will help any company discover what its strategies should be. The right questions will lead to answers. As examples, some key questions are presented below for two major strategic areas: products or services and marketing. With a little thought, you can devise key questions for other major strategic areas. Products or Services. A business exists to furnish products or services. In a very real sense, profits are merely a measure-although an important one-of how well a company serves its customers. New products or services, more than any other single factor, determine what an enterprise is or will be. The key questions in this area can be summarized as follows: What is our business? Who are our customers? What do our customers want? How much will our customers buy and at what price? Do we wish to be a product leader? Do we wish to develop our own new products? What advantages do we have in serving customer needs? How should we respond to existing and potential competition? How far can we go in serving customer needs? What Profits can we expect? What basic form should our strategy take? Marketing strategies are designed to guide managers in getting products or services to customers and in encouraging customers to buy. Marketing strategies are closely related to product strategies; they must be interrelated and mutually supportive. As a matter of fact, Peter Drucker regards the two basic business functions as innovation (e.g., the creation of new goods or services) and marketing. A business can scarcely survive without at least one of these functions and preferably both. The key questions that serve as guides for establishing a marketing strategy are these: Where are our customers, and why do they buy? How do our customers buy? How is it best for us to sell? Do we have something to offer that competitors do not? Do we wish to take legal steps to discourage competition? Do we need, and can we supply supporting services? What are the best pricing strategy and policy for our operation?

CORPORATE PLANNING

The concept of corporate planning has in recent years gained wide currency in management literature. Its connotation is somewhat overlapping with the concept of strategic planning. It is, therefore necessary that the scope of corporate planning and strategic planning should be clearly understood. Simply stated, corporate planning is a comprehensive planning process which involves continued formulation of objectives and the guidance of affairs towards their attainment. It is a systematic of the objectives of an organization or corporate body, determination of appropriate targets, and formulation of practical plans by which the objectives

could be achieved. It is undertaken by top management for the company as a whole on a continuous basis for making entrepreneurial (risk-taking) decisions systematically and with the best possible knowledge of their probable outcome and effects, organizing systematically the efforts and resources needed to carry out the decisions, and measuring the results of these decisions against the expectations through organized systematic feedback. The object of corporate planning is to identify new areas of investment and marketing. Initiating new projects, new courses of action, and analyzing past experience are the subject-matter of corporate planning. Thus, it implies

- (a) the imposition of a planning discipline on the present operations of the business, and
- (b) a reappraisal of the business and of the corporate planning competencies to the most profitable uses.

Innovation is the core of such planning. At the same time it ensures that managers are continually measuring their performance against the company's long-term profit and market objectives, evaluating alternative methods of reaching the goals, and keeping in touch with changes in the market and in technology. Constituents of corporate planning The comprehensive nature of the corporate planning process lies in that operational planning, project planning and strategic planning are its constituents. Let us examine the nature and scope of each of these constituents. It is essential for every business firm to manage its ongoing operations efficiently to keep the business afloat in the market with which it is familiar. Operational planning is necessary so as to ensure that changes in the market situation for the existing product line do not adversely affect the earnings of the firm. Thus, operational planning involves study of the market conditions for the existing range of products to maintain and improve the position of the firm in the face of competition. It is essentially a short-term exercise and deals with the existing product, market and facilities. The degree of uncertainty in operational planning is of a low order; the time span of discretion is short; choice not alternatives is relatively simple. But the firm can ill-afford to ignore long-term changes in the product markets. It has to look for new markets for the existing product, develop new products, create a market for the same, and utilize the existing facilities and expertise to meet new requirements. Considerations such as these characterize project planning, which is a forward looking exercise concerned with new markets, new products and new facilities. Project planning, therefore involves a greater degree of uncertainty, and demands a higher order of judgement on the part of planners due to the risks involved. Strategic planning refers of a unified, comprehensive and integrated plan aimed at relating the strategic advantages of the firm to the challenges of the environment. It is concerned with appraising the environment in relation to the company, identifying the strategies to obtain sanction for one of the alternatives to be interpreted and communicated in an operationally useful manner. Thus, strategic planning provides the framework within which future activities of the company are expected to be carried out. Compared with project planning, the time span of discretion in strategic planning is much longer, the degree of uncertainty and corresponding risks involved are much greater, and judgement to be exercised is more important. Inasmuch as strategic planning determines the future direction of a company, corporate planning is essentially based on strategic planning, and at the same time takes care of project planning and operational planning.

Thus corporate planning is described as a formal systematic managerial process, organized by responsibility, time and information, to ensure that operational planning, project planning and strategic planning are carried out regularly to enable top management to direct and

control the future of the enterprise. It follows that corporate planning is concerned with determination of objectives and developing means to achieve the objectives. It may encompass both short periods as well as long periods. The time span depends on how far ahead a company wants to forecast and to plan, which, in turn, depends upon the nature of business that the company wants to be in and commitment of resources required for it. For instance, in the modern heavy engineering industry, commitment of resources is generally required for a fairly long period-10-15 or 20 years. In the ready-made garment industry, on the other hand, resource commitment is for a very short period, generally required for a fairly long period –10, 15 or 20 years. In the ready-made garment industry, on the other hand, resource commitment is for a very short period, generally one year, so that operations may be adapted to changing fashions and taste. Therefore, corporate planning in an engineering enterprise will involve long-term considerations regarding market demand, technology and such other factors. It will have a short time horizon in the case of garment industry. Longtime horizon in view, generally five years or more. Corporate planning in capital-intensive industries is always associated with long-range planning. Besides, corporate planning is concerned with the existing products in existing markets as well as new products and new markets. Long-range planning essentially takes care of only the existing products in existing markets. Why is strategic planning necessary?

A variety of reasons may be adduced to justify business policy or strategic planning. One justification is that it has been found useful in practice. Research studies, based on the experience of companies and executive viewpoints, have indicated that strategic planning contributes positively to the performance of enterprises. Studies made by Igor Ansoff and his associates.

Eastlack and Mc Donals David Herold have revealed that companies which had undertaken formal strategic planning not only outperformed the non-planners on most measures of success (return on equity, growth of sales, earning per share, and value of the firm), but significantly outperformed their own past results as well, besides, the companies that used strategic planning were able to predict the outcome of planning much better than others. Malik and Karger in their analysis of the performance of 38 chemical/drug, electronics and machinery firms found that in nine out of 13 financial measures (sales volume, earnings per share, net income, etc) firms having —formal, integrated, long-range planning— far outperformed those doing it informally. Investigations have also shown that strategic planning can isolate the key factors in an industry and thus help companies plan their strategies more effectively. Executive viewpoints on the contribution of strategic planning to the success of firms were sought in a survey conducted by Ramanujam, Camillus and Venkatarman. The survey conducted 200 executives of US corporations. Their collective view clearly indicated that strategic management has been a significant and critical factor in determining their individual and organizational success, As high as 88.7 p.c., of the respondents were of the view that reducing emphasis on strategic planning would be detrimental to their long-term performance. Again 70.6 p.c. of the respondents stated that they had improved the sophistication of strategic planning systems in their organisations. Apart from the empirical evidence in support of strategic planning, it is justified on several other grounds. With fast changing environment of business and industry – product-market conditions, by which future opportunities and problems can be anticipated by company executives. It enables executives to provide necessary direction for the enterprise, take full advantage of new opportunities and minimize the attendant risks. Secondly, with clear goals and direction provided for the future, employees in general and managers in particular can better perceive the ways and means of achieving the corporate objectives consistently with the

individual and group aspirations. This is conducive to greater harmony and goal congruence. Moreover, formal strategic planning focuses on problems of the total enterprise, not just functional problems in the marketing, finance or personnel areas. Persons exposed to strategy formation thus develop a breadth of understanding and undergo change of attitudes in the process. Strategic planning is likely to be beneficial particularly in organizations when there is a long time lag between managerial decisions and the results thereof. Thus, for instance, if research and development efforts take several years to finally design and manufacture a new product, events in the intervening period may nullify the outcome of the R&D effort based on the original decision. Strategic planning enables management to improve the chances of making decisions which will stand the test of time, and revising the strategy on the basis of monitoring the progress of R & D and the changes in product market conditions. Thus, the advantages of a systematic approach to strategic planning and management may be said to include

- (a) providing necessary guidance to the entire organization about what is expected to be achieved and how
- (b) making managers more alert to new opportunities and potential threats
- (c) unifying organizational efforts leading to greater harmony and goal congruence
- (d) creating a more proactive management posture
- (e) promoting a constantly evolving business model so as to ensure bottom-line success for the enterprise and
- (f) providing the rationale for evaluating competing budget requests for steering resources into strategy-supportive and results-producing areas. However, it would not be true to contend that strategic planning alone invariably leads to success.

Achievements of corporate enterprises are caused by multiple factors : adequate resources, competent managers, specialist services, productmarket conditions, and so forth. Strategic planning is a necessary, though not sufficient, condition for success. But it makes a difference. Executives who engage in formal strategic planning are likely to be more effective in achieving their objectives than those who do not. Benefits of Strategic Planning Formulation and implementation of strategies which constitute the two main aspects of strategic management may be expected to yield several benefits.

1. Financial benefits On the basis of empirical studies and logical analysis it may be claimed that the impact of strategic management is primarily that of improved financial performance in terms of profit and growth of firms with a developed strategic management system having major impact on both planning and implementation of strategies.

2. Enhanced capability of problem prevention This is likely to result from encouraging and rewarding subordinate attention to planning considerations, and managers being assisted in their monitoring and forecasting role by employees who are alerted to the needs of strategic planning.

3. Improved quality of strategic decisions through group interaction. The process of group interaction for decision-making facilitates generation of alternative strategies and better screening of options due to specialized perspectives of group members. The best alternatives are thus likely to be chosen and acted upon.

4. Greater Employee Motivation Participation of employees or their representatives in strategy formulation leads to a better understanding of the priorities and operation of the reward

system. Also there is better appreciation on their part of the productivity-reward linkage inherent in the strategic plan. Hence goal-directed behaviour is likely to follow the incentives.

5. Reduction resistance to change. The benefit of acceptability of change with minimum resistance is also likely to follow the participative process of strategy making as there is greater awareness of the basis of choosing a particular option and the limits to available alternatives. The uncertainty which is associated with change is also eliminated in the process and resistance. Negative Effects of Strategic Planning While the benefits of strategic management are well recognized, alongside the positive behavioural consequences of group-based strategic decisions, there are certain unintended negative effects as well:

a. The process of strategic planning and management as a formalized system is naturally a costly exercise in terms of the time that needs to be devoted to it by managers. But the negative effect of managers spending time away from their normal tasks may be quite serious. For defaults on the part of managers in discharging their operational responsibilities may be irreparable. This eventuality may of course be guarded against. Managers may be trained to schedule their activities so as to devote adequate time for strategic work without cutting down the time they have to devote to normal operations.

b. Another type of unintended negative effect may arise due to the non-fulfilment of participating subordinates' expectations leading to frustration and disappointment. For instance, subordinates who have been involved in strategy making at some stages may expect that their participation will be solicited in other areas too, which again may not happen. Such eventualities may be unavoidable. So managers need to be trained to anticipate disappointments, minimize the impact and respond constructively to the sense of frustration that may on occasions be experienced by subordinates.

c. A third dysfunction or unintended effect of strategic management relates to the risk of participants shirking the responsibility of inputs in the decision-making process and the conclusions subsequently drawn. This may happen if those associated with the formulation of strategy are not intimately involved with the implementation of strategy. Hence, assurances with the outcomes and results of strategic decisions should be limited to the performance that can be achieved by the strategy-makers and their subordinates. Strategic Planning in Small Business Firms Is it worthwhile for managers of small business firms to engage in the strategic planning exercise? No doubt the size of an organization can make a significant difference in the nature and scope of planning. Small firms generally have a few products or services to offer, mainly because their resources and capabilities are limited. Usually they do not have formal procedures to monitor the environment, make forecasts, or evaluate and control the existing strategy. Managerial personnel in such firms are mostly trained on the job. Thus, they tend to rely on experience as a guide, rather than on systematic, specified procedures. In many cases, the firms are owned and managed by family members, relatives and close friends. Obviously, because of their differentiating characteristics, the planning process in small firms is bound to be less systematic and explicit as well as less formal. The strategic planning model suited to large organizations may serve the purpose of a guideline, but it cannot be adopted by small firms with the same kind of detailed and complex analyses. However, it may be useful for managers of small firms to realize that strategic planning does not necessarily have to be an expensive, complex exercise or involve the use of quantitative data, nor does it need to be a formal exercise. It may be undertaken on a modest scale focusing on only the steps which are relevant to the

firm's needs. Gilmore has suggested in more concrete terms that, in smaller companies, strategy should be formulated by the top management team at the conference table. According to him, —Judgement, experience, intuition and well-guided discussion are the key to success, not staff work and mathematical models. Another point to be kept in view is that strategic planning may serve as a learning process. Managers of small firms may progressively come to know more about the capabilities and limitations of the firm as well as about the opportunities and threats in the environment. They can become increasingly more familiar also with the environment. They can become increasingly more familiar also with the process of strategic planning itself, which can become more formal and sophisticated over time as managers develop the necessary skills. Thus, for strategic planning in small business, it is essential for managers to realize that (a) to start with strategic planning need not be a complex, formal process, and (b) it has its usefulness also as a learning process. Further, as a rice has observed, strategic planning is frequently easier to accomplish in small companies, for once developed, strategies can be clearly communicated to, and understood by, all personnel which ensure effective implementation of the strategies. Robinson, who conducted survey of 101 small retail, service and manufacturing firms in USA over a three-year period, reported a significant improvement in sales, profitability and productivity of those firms which engaged in strategic planning when compared to firms without systematic planning activities. Strategies Planning in Not-for-profit Organisations Non –profit organisations, by definition, differ from profit-oriented business organisations. There are diverse types of not-for-profit organisations in India as in other countries, including research institutions, hospitals, educational , social, cultural, and political organisations, trade unions, and the like. In spite of this diversity, however, certain common characteristics are noticeable in such organisations that distinguish them from business firms. Generally, their output consists of services of an intangible nature which are not amenable to direct measurement. The influence of their clients or customers is often limited. Many of these organisations are funded by way of grants and donations from Government and public trusts. Discretionary powers of internal management team are thus subject to the overall regulation of the funding bodies. The personnel of some organisations like research institutes, social and cultural organisations, often are committed more to their profession or to a cause or ideal. Their allegiance to the organization is thereby weakened. Rewards and punishments are subject to restraints due to the intangible nature of services, external funding and the professional commitments of employees. Because of these characteristics of not-for-profit organisations, partly because of their diversity inter se, and since strategic planning techniques have developed out of the experience of large business enterprises, top management of not-for-profit organisations are said to be less likely to engage in strategic planning. Wortman in his study in the American context found that such organisations tended to be managed much more in a short-term operational sense than in a strategic sense. According to Hofer and Schendel also. —There is some evidence that some of these organisations have no strategies at all. Rather, they seem motivated more by short-term budget cycles and personal goals than by any interest in re-examining their purpose or mission in the light of altered environmental circumstances.

CAPITALISATION

The capital structure or the capitalization of an undertaking refers to the way in which long-term obligations are distributed between different classes of owners and creditors. The capitalization of an enterprise depends on its expected average net income. From the view point of investors, the yield on the securities which have been issued should be comparable to the

yields of other securities which are subject to the same kinds of risk. The rate at which prospective earnings are capitalized will vary, for it is a subjective measure of risk and would, therefore, be different for firms in different fields of business activity. If the income is expected to be regular, the rate would be lower than that for a highly speculative venture. It would be higher for a new venture than for one which is well established. It would be different for the same firm under different conditions of trade. It would be low then business conditions are brisk, and high when they are slack, for then a greater risk is involved in capitalization. The need for capitalization arises in all the phases business cycle. Estimation of total funds of capital arises in the initial stages to start the business unit. The requirement, Land & Building etc. Funds are also needed to meet the working capital through which raw materials, cash, components and stocks are provided. At the time of growth stage, finance is needed for expansion, introducing technology, modernization programmes. Hence arrangement of capital is made through proper planning. Though the firm enjoys highest reputation, goodwill and credit worthiness at the saturation stage, it has to diversify its products to stay on in the market. Product diversification, improvement in the existing products requires huge sums of money. This can be arranged through reorganizing the capital structure. Now, the existing period is identified —Era of mergers, acquisitions and Joint ventures. The economy has influenced mergers of big giants in the country. Ex: Hindustan Levers with Brooke Bond India Ltd. and many others. The success of Mergers of the companies in European Countries encouraged the Indian Corporate to have same type of business policies. This increases the potentiality of business establishment to economies their scale of operation. Even at this stage, the concept of Capitalization is extensively used. This provides an acceptable formula for exchange their business terms and restructure the capital for its effective and efficient usage. Theories of Capitalization Identifying the requirement of capitalization, it is referred as determination of the value through which a company has to be capitalized. This helps the management in deciding number of securities that are to be offered, the appropriate mix that has to be designed between the debt and Equity. The final decision on this matter will be made by considering two popular Capitalisation Theories: They are 1. Cost Theory: Under this theory, the total value of the Capitalisation is calculated by taking the total cost of acquiring fixed assets and the current assets. In a real life situation, the amount of capitalization for a new business is arrived at, by adding up the cost of fixed assets, the amount of working capital and the cost of establishing the business (Plant & machinery, land and building, cost & raw materials, Preliminary expenses, floatation cost of shares & debentures etc). Cost theory helps promoters to find the total amount of capital needed for establishing the business. According to Husband and Dockeray, cost principle may appear to give an assurance that capitalization would, at the best be representative of the value of the enterprise. However, the cost theory has not been considered efficient based on the following grounds: i) It takes into consideration only the cost of assets and not the early capacity of investments. ii) Earnings of the company fluctuates when the asset becomes obsolete or idle. This will not be detected, if capitalization is made on the basis of cost. iii) It is not suitable for such companies where its earnings are varying. Earnings Theory: Earnings theory stresses more on the earnings capacity of a business unit. The worth of the company is not measured by capitalization but by its earning capacity. Profit is the base capitalization. According to this theory, the value of the company (capitalization) is equal to the value of its earnings, Earnings are capitalised at a representative rate of return. In case of a new company, it will have to estimate the average annual future earnings and the normal earnings rate prevalent in the same industry. The approach

of Earnings theory is the best method of capitalization for the existing companies. It may not be suitable for new companies, as the estimation of earnings is fairly a risky and difficult task. For Example: If a new company estimates that its annual average earnings will amount to a sum of the Rs. 1,00,000, while the companies in the Same industry are earnings a return of 20% on their capital employed, the amount of capitalization for the company would be. Advantages: This method correlates the value of a company directly with its earning capacity. Earnings theory acts a check on the costs of establishing new companies.

Disadvantages: The process of estimating earnings for a new company is very difficult. A mistake committed at the time of estimation the earnings will be directly influencing the amount of capitalization.

OVER-CAPITALISATION

Meaning: A business is said to be over-capitalised when capitalisation exceeds the real economic value of its assets. A fair return is not realized on capitalization; and Business has more net assets than it needs. Example of overcapitalized situation Balance Sheet Liabilities Amount (Rs.)

Assets	Amount (Rs)	Equity capital	Debentures	Current Liabilities
Fixed Assets	10	15	10	
Currents Liabilities	22	13	35	35

In the above example, the component of equity capital is more in relation debt; equity ratio. The long-term funds are not optimally deployed on fixed assets. A portion of long term funds is allocated to current assets. The current liabilities are not sufficient to meet the requirement of current assets. Hence, it is inferred that, the available funds are not judiciously utilized. Over- capitalization may be considered to be in the nature of redundant capital. It is generally found in companies which have depleted assets such as oil and mining concerns. This condition is commonly known as —water stock. a company is said to be over-capitalised when the aggregate of the par value of its shares and debentures exceeds the true value of its fixed assets, in other words, over-capitalization takes place when the stock is watered or diluted. It is wrong to identify over-capitalization with excess of capital, for there is every possibility that an over-capitalized concern may be confronted with problems of illiquidity. The correct indicator of over -capitalization is the earnings of the company. Overcapitalization does not imply a surplus of funds any more than undercapitalization indicates a shortage of funds. It is quite possible that the company may have more funds and yet have low earnings. Often, funds may be inadequate, and capitalization. The average distributable income of a company may be insufficient to pay the contract rate of return on fixed income securities elsewhere. Over-capitalization may take place when:

- ⊖ Prospective income is over-estimated at the start;
- ⊖ Unpredictable circumstances reduce down the income;
- ⊖ The total funds requires have been over-estimated;
- ⊖ Excess funds are not efficiently employed;
- ⊖ The low yield makes it difficult for a firm to raise new capital, particularly equity capital;
- ⊖ The market value of the securities falls below the issue price;
- ⊖ Arbitrary occasions are taken on the charges against income arising from depreciation, obsolescence, repairs and maintenance;

The low yield may discourage competition and this limited competition becomes a social disadvantage. Over-capitalization may go unnoticed during the period a business flourishes and may be encouraged by prosperity. However , it may be productive of ill-consequences when the distributable income diminishes under the pressure of declining demand and falling prices.

Causes

The causes of Over-capitalization are:

1. Different between Book Value and Real Worth of Assets: It is possible that a company may have purchased its assets at a value which is higher than their real worth. This gap between the book value and the real worth of assets may account for over-capitalization.
2. Promotional Expenses: There is a possibility that promoters may have charged exorbitant promotional expenses for their services in creating the corporation. This excessive charge may be a cause of over-capitalization.
3. Inflation: Due to inflationary conditions a corporation might have acquired assets at high prices. Inflationary conditions precipitate overcapitalization which affects new as well as established corporations.
4. Shortage of Capital: when faced with a shortage of funds, a company may borrow at unremunerative rates of interests which is bound to result in excessive or unjustified fixed charges.
5. Depreciation Policy: Inadequate provision for depreciation, obsolescence or maintenance of assets may lead to over-capitalization, and this is bound to adversely affect the profit-earning capacity of a corporation.
6. Taxation Policy: High corporate tax may discourage corporation from implementing programmes of replenishment, renewals and renovations, as a result of which their profitability may suffer.
7. Dividend Policy: Some corporations adopt a lenient dividend policy in order to gain popularity with their stockholders. However, such cash-down payments in the form of dividends weakens their liquidity position. Their valuable resources are likely to be frittered away and, as a result, they may find themselves in a state of over-capitalization.
8. Market Sentiment: Company may be tempted to raise security floatations in the market in order to create a favourable market sentiment on the stock exchange . While doing so, it may be saddled with the issue of unwarranted securities which are of no practical value to it. As a result, it becomes over-capitalised and the burden of its liabilities is unnecessarily inflated.
9. Under-estimation of Capital Rate: If the actual rate at which a company's earnings are capitalised, the capitalization rate is underestimated, and this results into over-capitalization.

Advantages

1. The management is assured of adequate capital for present operations.
2. If conserved, an Excess of capital may preclude the necessity of financing some time in the future when capital is needed and can be obtained only with difficulty. 3. Ample capital has a beneficial effect on an organisation's morale.
4. ample capitalization gives added flexibility and latitude to the corporation's operation.
5. Allegedly, losses can be more easily observed without endangering the future of the corporations.
6. The rate of profits tends to discourages possible competitors.
7. For public utility companies, when the price of service is based upon a —fair return to capital , a high capitalisation may be advantageous.

Disadvantages

1. When Stock is issued in excess of the value of the assets received, a company's stock is said to be —watered. Watered stock may arise by the issued of stock in any of the following ways.
 - a) For over-valued property or services;
 - b) As a bonus;
 - c) For cash at less than the par or stated value of the stock;
 - d) As a stock dividend when the surplus of the corporation is not offset by actual assets of at least an equal amount. If known to be watered, stock has a market value which is lower than it would enjoy if it were not wanted – until the —water has been —squeezed out (until sufficient assets have been acquired from earnings to offset the excess of stock.
2. There is the possibility of stockholders' liability to creditors in case a court should conclude that the stock was heavily watered, that the corporation did not receive —reasonable or —proper value for the stock. This liability would attach only to such stock as was received as a result of an unreasonably excessive valuation of properties or services given in exchange for such stock.
3. There may be a possible difficulty of raising new capital funds. This may be obviated. However, by the use of —no-par stock.
4. In some States, the rate of the annual franchise tax depends on the amount of outstanding stock. Large capitalization's in such states may attract correspondingly large franchise taxes.
5. There is a tendency to raise the prices of a company's products and/or to lower their quality. This may be partly or wholly forestalled, however, by competition and would apply more to public utility services than to others, for public utility rates are based, in part, upon a —reasonable return on capital.
6. Over-capitalization may include a failure, and the failure of a corporation may bring about an unhealthy economic situation.
7. The ethical atmosphere of a business is not improved by overcapitalization.
8. The almost necessary —rigging of the market for the securities which first offered to the public usually results in market value losses to the investors after this support is removed. (This is not to condemn the legitimate support of the market in the above-board floatation of a security issue).
9. There may be an inability to pay interest on bonds (when bonds constitute a large portion of the capitalization of an over-capitalised company).
10. Injury to creditworthiness.
11. Decline in the value of securities.
12. Possible loss of orders because of inability to expand.
13. Temptation for the management to juggle with depreciation, obsolescence, maintenance, and reserve accounts in order to appear to be making a profit and possible in order to pay a dividend.
14. Possible injury to goodwill in case a necessary reorganization.
15. The holders of securities may be dissatisfied.

16. The business may give way to its competitors through its inability to obtain funds for expansion.

Effects Over-capitalization has some effect on the corporation, its owners, consumers and the society at large.

1. On Corporation: The market value of the corporation's stock falls and it may find it difficult to raise new capital. Quite often, artificial devices such as the reduction in depreciation, curtailment in maintenance, etc., are made use of to cover over-capitalization. But this only aggravates the evil of over-capitalization. The credit of the company is adversely affected. The company may appear to be in a robust, healthy condition, even though it may have lost its vigor and vitality and may collapse at any time because of the uneconomic financial condition from which it suffers.
2. On Owners: Owners who have a real stake in the corporation are the biggest losers. Because of a fall in the market value of its shares, shareholders are not in a position to dispose of their holdings profitably. Moreover, because of a fall in dividends, shareholders lose heavily. They develop the feeling that the corporation is funded on shifting sands.
3. On Consumers: A corporation cannot resist the temptation of increasing the prices of its products to inflate its profits. At the same time, there is every possibility that the quality of the product would go down. The Consumer may thus suffer doubly.
4. On Society: over-capitalized concerns often come to grief in the course of time. They lose the backing of owners, customers and society at large. They suffer multi-pronged attacks from various sections of society. They are not in a position to face competition. No wonder, therefore, that they gradually draw closer to a situation ordering liquidation. While the existence of such corporation cannot be justified, their extinction would cause irreparable damage to society.

Remedies Over-capitalization is not easily rectified, chiefly because the factors which lead to it in the first place do not entirely disappear. In many cases, over-capitalization and excessive debts co-exist and an attack on one often involves the other. Indeed, a correction of the former usually involves the latter. With this co-relationship in mind, it may be said that correction of over-capitalization may involve one or more of the following procedures:

1. Reduction in Funded Debt: This is generally impossible unless the company goes through re-organization. Funds have to be raised for the redemption of bonds; and the Sale of large quantities of stock, presumably at low prices, would probably do more damage than good. Moreover, the creation of as much stock as the bonds retired would not reduce the total capitalisation. A true reduction in capitalization can be effected only if the debts are retired from earnings.
2. Reduction in Interest Rate on Bonds: Here again, without a through reorganisation, it would probably not be practicable to effect a reduction in the interest rate on bonds. A refunding operation, however, might be performed; but the saving in interest payments on the lower-rate refunding bonds would hardly offset the premium the company would be forced to allow the bond-holders in order to induce them to accept the refunding bonds; and, moreover, this procedure would not really reduce capitalization. However, it would alleviate the situation.
3. Redemption of Preferred Stock, if it carries a High Dividend Rate: Funds for redemption would probably have to come from the sale of common stock sufficient to increase somewhat

the earnings from the Common stock, even if this common stock is increased substantially. If, however, the preferred stock is cumulative, and if dividends on such stock are in arrears, this avenue of escape would appear to be a —dead-end street.

4. Reduction in par value of Stock: This is a good method but is sometimes impossible because of the stockholders' tenacious belief in the importance of par value. If the stockholders are convinced of the desirability of the move, it might be somewhat effective, though not nearly as much as the reduction in high fixed.
5. Reduction in Number of Shares of common Stock: This likewise is a good method but, again, is difficult of implementation because of the average stockholders' unwillingness to turn in several shares in order to receive one, though it does happen occasionally. Since this procedure does not decrease the stockholder's proportionate interest in the equity, it is sometimes used. In some cases, several of these methods may be used, but unless a company goes through re-organisation (a rather complicated and legally involved affair), the consent of the Security-holders should be obtained.

UNDER-CAPITALISATION:

Under-capitalisation is the reverse of over-capitalisation. It should not be confused with a condition implying a lack of funds. It merely refers to the amount of outstanding stock. It does not pose an Economical problem in adjusting the capital structure. The condition is not as serious as that of over-capitalisation and its remedies are much easily applied. Under-capitalisation comes about as a result of: Under-estimation of future earnings at the time of promotion; and / or An unforeseeable increase in earnings resulting from later developments; Under-capitalisation exists when a company earns sufficient income to meet its fixed interest and fixed dividend charges, and is able to pay a considerably better rate on its equity shares than the prevailing rate on similar shares in similar businesses. Example of under capitalised situation

Balance Sheet	Liabilities Amount (Rs.)	Assets Amount (Rs.)
Equity capital	10	25
Debentures	15	15
Current Liabilities	40	10
Fixed Assets	50	50

In the above example, the component of equity is substantially lesser than in relation to debt: equity ratio. The size of debt is more. Total long-term funds are enough to meet the capital Expenditure requirement. The management has used short term funds for long Term purposes and assuming huge amount of risk, as a result, profitability of the firm would be more. Hence it is inferred that, the available funds are put to use more aggressive to earn substantial profit. At this stage, the real worth of the assets exceeds their book value, and the rate of earnings is higher than corporation is ordinarily able to afford. Bonneville and Dewey observe that when a corporation is earning an extraordinarily large return on its outstanding stock, it is said to be under capitalised. Husband and Dockey express the view that, in a quantitative sense, on the most productive basis; qualitative under-capitalisation exists when insufficient provision is made for funds to operate on the most productive basis; qualitative under-capitalisation exists when insufficient provision is made for funds to operate on the most productive basis; qualitative under-capitalisation, however, is found whenever values are deliberately carried on the books of accounts in an amount that is less than the value of the assets.

Causes

The causes of under-capitalisation are:

1. under-estimation of Earnings: It is possible that earnings may be underestimated, as a result of which the actual earnings may be much higher than those expected.

2. Efficiency: A Corporation may have optimally utilized its assets and enhanced its efficiency by exploiting Every possibility of modernisation and by taking the maximum advantage of market opportunities.
3. Under-estimation of Funds: It may take place when the total Funds required have been underestimated.
4. Retained Earnings: Because of its conservative dividend policy a corporation may retain the earnings which might have accumulated into a mass of savings. This is bound to improve its financial health.
5. Windfall Gains: Companies which can afford to continue to operate during the period of depreciation may find their earnings are unusually high when they enter the boom period. This shift from an adverse business cycle to a prosperous one may under-capitalise the corporation.
6. Indulgence in Rivalries: Under indulgence in rivalries flowing from unusually high earnings may tempt an organization to embark upon speculative activities in the hope that it can easily survive its ill effects; for if speculative activities turn out to be unfavourable, its earlier earnings are likely to be washed away.
7. Taxation: Because of excessive earnings, corporation are exposed to a heavy burden of taxation.

Effects

The effects of under-capitalisation are:

1. Labour Unrest: Employees are often organized and become conscious of the fact that the corporation is making enormous profits. they feel that they have a legitimate right to share in these profits. In other words, they develop the feeling that they are not adequately paid and that the corporation is reluctant to pay what is their legitimate due. This generates a feeling of hostility on the part of employees, and leads to labour unrest.
2. Consumer Dissatisfaction: Consumers feel that the unusual earnings of the corporation could have been utilized by effecting a price reduction or by improving the quality of the product.
3. Government Interference: The Government generally keeps a watchful eye on under-capitalised concerns which earn abnormal profits. It may, at the instance of dissatisfied consumers, employees and investors, intervene in the affairs of such corporations and may even nationalize them.
4. Need for short term funds: A corporation may have to resort frequently to short-term credit and may even seek additional long-term funds without much notices.
5. Slow down of expansion programmes: Adaptability to changed circumstances may be impaired and expansion programmes may slow down.
6. Temptation to raise Fresh equity: Enormous earnings on equity Shares may result in an increase in market price, and the company will be tempted To raise new Capital.
7. Competition: The prospect of enormous earnings may generate competition which may adversely affect the profitability of a corporation.
8. Share Prices: Higher prices of shares may restrict the market and shares may be traded at prices below those justified by the usually high earnings.

Disadvantages:

1. The Stock would enjoy a high market value, but would limit its marketability and may cause wide (though not necessarily relatively wide) fluctuations in market prices. In many cases, this may not be considered a disadvantage.
2. Owing to its limited marketability, the stock may not enjoy as high a market price as its earnings justify.
3. A high rate of earnings per share may encourage potential competitors to enter the market.
4. In view of the high rate of earnings, employees may become dissatisfied. Dissatisfaction would probably reduce their efficiency and have other undesirable effects.
5. In view of the high rate of earnings, customers may feel they have been overcharged. Except possibly in public utility undertakings, this is not an entirely justifiable point, for competitors might easily enter the field and force reductions in price.
6. If a company is an extremely large one and virtually controls the industry, its enormous earnings per share may encourage competitors or the Government to bring suit against it under the Anti-trust laws.
7. Depending on the nature of excess profit taxes, if any, the company may lose by under-capitalisation.

Remedies

Under-capitalisation is easily remedied. It may be done by one or more of the following methods.

1. **Stock Split – up:** The corporation may offer the stockholders several shares of new stock for every share of the old. If there is a par value, the par value must be reduced to correspond with the increase in the number of shares, for by this method the capital stock account is not affected. With this increase in shares and reduction in par value per share the rate of earnings will not be changed, but the earnings per share will be very substantially decreased. The effect is much more apparent than real, for the capitalization is not increased, though the earnings per share are reduced.
2. **Increase in par Value of Stock:** If the surplus is large or can be made larger (by revaluing assets upward, or otherwise), the corporation might offer the stockholders new stock for the old, the new stock to carry a higher par value. This would not reduce the earnings per share, but it would reduce the rate of earnings per share. This method, however, is seldom used, partly because it would not improve the marketability factor. If it were desired to go further, the corporation could offer the stockholders a stock split-up and an increase in par value. This would reduce both the earnings and the rate of earnings per share value enormously. This method, however, is very radical and is almost never used.
3. **Stock Dividend:** If the surplus is large or can be made larger, the corporation might declare a dividend payable in stock. This would not affect par value per share, but would increase the capitalization and the number of shares. Both the earnings per share and the rate of earnings per share would be reduced. This is probably the most used method and the most easily effected.

Different Types of Financial Planning Models and Strategies:

Financial is a very broad concept and planning is a difficult and disciplined mission. Some key categories of financial planning include source of finances, assessment of your financial necessities, calculating the risk factor and a plan to achieve your financial goal. Investment

plans, retirement plans, tax plans, Business planning, personal financial planning are some of the sub-types of financial planning. In this e-learning tutorial chapter, we will understand some of the important types of financial planning which everyone should learn and understand in their life. Types of Financial Planning Models and Strategies: Here we will list out key important types of financial planning strategies and models which one has to start thinking on it. There are various different types of financial plans which one has to draft to achieve the goals of the life. Let us understand in detail below.

1. **Cash Flow Planning:** It is one of the important types of financial planning. An individual or a company forecast its short term and long term expenses against the projected cash flow. But there are time when emergency expenses or unexpected expenses occurred. One should plan its cash flow appropriately. Incorrect cash flow planning can lead to bankruptcy.
2. **Investment Planning:** One should make your investment plan to achieve your goals in your life. Your investment plan is always based on your savings. Once you know your amount of savings, you can take the help of financial adviser for various investment opportunities like: fixed income, investment in stocks, gold, forex market, bonds, mutual funds, etc. You can either invest lump sum amount or you can start Systematic Investment Plan (SIP) for a long term to fulfill the long term financial goals.
3. **Insurance Planning:** Insurance coverage for a long term is very crucial type of financial planning. Under unforeseen situations, if you haven't plan your insurance well in advance then it can spoil your other financial plans as well. Insurance planning is dependent upon individual lifestyle. You should analyze first before you buy any insurance. For Example: If you travel a lot every year then you should purchase travel insurance for coverage on unfortunate events. Likewise you can decide on health insurance, auto insurance, flood insurance, home insurance, etc.
4. **Retirement Planning:** It is the event which occurs in everyone's life. It is one of the important type of financial planning. Mostly you will hear that people set their financial goals for their retirement income due to rising inflation and rising standard of living. You will have to start your saving and investment early in your life for your retirement so that you do not have to compromise on standard of living during retirement.
5. **Tax Planning:** Proper tax planning can help you to maximize your finance saving. There are various benefits and exemptions provided by countries for the tax payers. You should take the education and draft a plan on it. At the end of the year, you can take the benefits of exemptions and minimize your taxes. Everyone should keep your knowledge up-to-date on your tax planning as a part of your financial planning strategy.
6. **Real Estate Planning:** Asset creation is again one of the important type of financial planning. Wealth creation or retirement planning can be achieved with real estate planning. Real estate is considered as a low risk and high return investment option. So everyone should think of draft such plan as a part of financial planning. In case of unforeseen situations in life, real estate planning turn out to be one of the best plan for your family safety. Define your Long Term and Short Term Financial Goals: When you draw a road map of your financial goals, it is equally recommended to categorize into short and long term financial targets. General rule you can apply to categorized would be any financial goals within 0-5 year's duration should be categorized as short term goals and anything beyond that should be considered as long term goal. For example: If you are planning to buy a car or saving finance for your marital expenses with next 3-4 years then you should pack these goals into short term targets whereas if you are looking forward for children education plans, retirement plans for longer duration then 5 years then you should arrange these into long term goals

STRATEGIC PLANNING PROCESS

The **strategic planning process** are the steps that you go through as an organization to determine the direction of your organization (Its Vision), what you're going to do and for whom (Your mission) and some way to measure it or to guide you in a strategy to get there (Your goals).

In this overview of the **strategic planning process**, we'll go through the steps that we use to create a strategic plan.

There are many different ways you can create a strategic plan, much like there are several different ways you can create a meal to eat.

This is the process that we at SME Strategy believe gives management teams sufficient information and direction to create their strategic plan.

Before we get into the strategic planning steps you need to understand why we do strategic planning in the first place.

Why do strategic planning?

- There are a few reasons why you should do strategic planning:
- To get your team on the same page
- To not waste money doing things that you shouldn't be doing.
- To identify and evaluate the best way to accomplish your goals
- and much more...

A strategic plan is a valuable guide for the rest of your employees, your organization's leadership and your stakeholders to know where you're going and why you're going there.

The document that contains the strategic plan is not what is valuable, it's in information in it and the process used to create it that is then SHARED and COMMUNICATED with the rest of your team is where the value comes. A great strategy is most often re-evaluated on an ongoing basis, rather than being a static document just sitting in a binder.

Strategy is about choices; knowing what to do as much as knowing what not to do. Your strategic plan tells your people what they should be doing so they don't have to worry about doing the wrong things, or having them to go to a manager every time they have a decision to make.

A strategic plan that is well communicated gives you access to greater productivity, culture, empowerment, and overall effectiveness.

Now that you know why you should do strategic planning, let's take a high level overview of the strategic planning process.

The simplified strategic planning process in four steps.

1. Part one: How did we get to where we are now?
2. Part two: Where do we want to go? What is our vision of success?
3. Part three: What is going to get in our way? What do we need to be aware of?
4. Part four: What do we need to get there?

In our two day sample strategic planning agenda we go through the whole strategic planning process outlined above.

There are many different strategic planning tools and frameworks that you can incorporate in your planning process, and throughout the creation of your business strategy.

The headers outlined above are some of the key questions that you need to answer first.

The complete strategic planning process

Strategic planning step 1: Gather inputs

- SWOT Analysis, Trends, successes and results from past strategic plans, Environmental scan, staff surveys.
- Outside of your business there are many factors that affect how you can do business: **Competitors** being one, but also the: Political, Economic, Social, Technological, Legal and Environmental climates that your organization or business operates in.
- Throughout the **strategic planning process** you'll also have to identify internal processes and situations that may affect where you go in the future (Your strengths and Weaknesses). There are also external factors that might affect your business strategy and those are opportunities and threats.
- These "inputs" are the ingredients to your successful strategic plan.
- The right information will help you make the right decisions. So gather and assess carefully.
- Once you know where you are at as an organization, and what's going on in the world outside of your organization, then you can start to figure out where you're going.

Strategic planning step 2: Vision

- Where are you going? What does winning look like? Why should you go there?
- There's one thing to have a vision statement, it's another to have a very clear vision of the future. Like a blueprint to a house. This is the foundation of your strategic plan.
- As an organization (SME, for profit, non-profit, government, growing start-up, etc.) what are you building, and what is that rallying point for your people?
- Spending the time to get agreement and alignment on this future is key, because otherwise each individual will be following their own destination of success.
- Another way to think of your vision is: "If success was a place, how would we know if we got there"

Strategic planning step 3: Mission

- What is your purpose? Why do you exist? What do you do and who do you do it for?
- This is an opportunity to focus your energy on a specific set of customers. (staff, stakeholders, customers, etc.) If you had to dedicate the majority of your resources to a group, who would it be? This is a tough question, because our tendency is to say: "everyone"
- Your mission is the key driver in accomplishing your vision. It's your: HOW?

Strategic planning step 4: Values

- If you want to find the number one contributor to a successful organization, it's having values that are understood and agreed on.
- Values create a set of behaviours that everyone on the organization can count on and expect.
- It's like having everyone playing by the same rules that clearly identify how you can be successful. You want your people to feel successful and fulfilled in their jobs? Live, eat and breathe your values so they know how they can contribute to making the organization a success.

Strategic planning step 5: Competition, Risks and Road blocks

- You didn't think it was going to be that easy did you? There will always be things that will get in your way of success.
 - If you take the time to identify what they are, what the impact of that thing happening will be and what you're going to do to mitigate it, you are less likely to be caught off guard and your plan is more likely to be successful.
- You can look at incorporating a risk register or scenario planning as frameworks to help you manage these risks and uncertainties.

Strategic planning step 6: Strategic priorities, goals strategies and tactics.

- This is where you can tie into the big picture thinking into action items as part of your strategic planning process.
- Strategic priorities are a handful of areas that will make the most amount of progress towards accomplishing your vision.
- Want to increase the focus of your strategic planning? Focus on the right strategic priorities.
- Once you have your strategic priorities, find a way to measure its success. Think of it as moving it from its current state: X, to its future state: Y by a certain date. From X to Y by DATE
- Then you make the individual action steps that are going to contribute to the accomplishment of that goal. Check out this article if you want some ideas on what strategic priorities to pick as part of your strategic plan.



Strategic planning step 7: Communication plan

- This is where you'll make your plan as a team to communicate your strategic plan, and the things that you're going to get people bought in to your plan.
- Remember how we mentioned that a shelf plan is not very useful, and that making sure you keep your strategic plan and strategic priorities at the top of mind is key; this is where you do that.
- Audio, video, meetings, what ever you need to do: Let people know where the organization is going, and how they can contribute to making that plan a success.
- Communication goes both ways. You'll have better buy in if you listen as well as speak. That's the difference between pushing a plan on people versus pulling them towards you and getting them to want to contribute.

Action plan

This is the most straight forward part of the strategic planning process but is also where most organizations falter: Implementation.

- Now that you know where you're going, and how you're going to measure it, do the things that are going to move the needle on the success of your strategic plan.

Once you know where you want to go, then you need to figure out the strategies and the tactics to get you there.

Big picture thinking is the easy part of the strategic planning process. What's a little harder is the implementation of the strategic plan in practice.

Most organizations fail at implementing their strategic plans (71% failure rate).

The strategic planning process might seem pretty simple at first, but the intricacies of people and the moving parts of most businesses make planning a crucial but also challenging art form.

Combining effective long-range planning, with short term implementation is a skill of great managers and great leaders.

Our consultants at SME Strategy can help your team create your strategic plan, as well as help you implement it.

UNIT - II

INVESTMENTS DECISIONS UNDER RISK AND UNCERTAINTY

Risk is inherent in almost every business decision. More so, in Capital Budgeting decisions as they involve costs and benefits extending over a long period of time during which many things can change in unanticipated ways. For the sake of expository convenience, we assumed so far that all investments being considered for inclusion in the capital budget had the same risk as those of the existing investments of the firm. Hence the average cost of capital was used for evaluating every project. Investment proposals, however, differ in risk. A research and development project may be more risky than an expansion project and the latter tends to be more risky than a replacement project. In view of such differences, variations in risk need to be evaluated explicitly in capital investment appraisal. Risk analysis is one of the most complex and slippery aspects of capital budgeting. Many different techniques have been suggested and no single technique can be deemed as best in all situations.

2. SOURCES OF RISK The first step in risk analysis is to uncover the major factors that contribute to the risk of the investment. Four main factors that contribute to the variability of results of a particular investment are cost of project, reinvestment of cash flows, variability of cash flows and the life of the project.

(a) **Size of the Investment** A large project involving greater investments entails more risk than the small project because in case of failure of the large project the company will have to suffer considerably greater loss and it may be forced to liquidation. Furthermore, cost of a project in many cases is known in advance. There is always the chance that the actual cost will vary from the original estimate. One can never foresee exactly what the construction, debugging, design and developmental costs will be. Rather than being satisfied with a single estimate it seems more realistic to specify a range of costs and the probability of occurrence of each value within the range. The less confidence the decision-maker has in his estimates, the wider will be the range.

(b) **Re-investment of Cash Flows** Whether a company should accept a project that offers a 20 per cent return for 2 years or one that offers 16 per cent return for 3 years would depend upon the rate of return available for reinvesting the proceeds from the 20 per cent 2-year period. The danger that the company will not be able to return funds as they become available is a continuing risk in managing fixed assets and cash flows.

(c) **Variability of Cash Flows** It may not be an easy job to forecast the likely returns from a project. Instead of basing investment decision on a single estimate of cash flow it would be desirable to have range of estimates.

(d) **Life of the Project** Life of a project can never be determined precisely. The production manager should base the investment decision on the range of life of the project.

3. WHAT MEASURE OF RISK IS RELEVANT IN CAPITAL BUDGETING

1. **Prospective: Measures of Risk Project Standing Alone:** Ignores Diversification within the firm and within the shareholder's portfolio. Before we began our discussion of how to adjust for risk, it is important to determine just what type of risk we are to adjust for. In capital budgeting, a **Project Standing Alone Risk** Project's Contribution - To-Risk Risk Diversified away firm as this project is combined with firm's other projects and assets **Systematic Risk** diversified away by shareholders as securities are combined to form diversified portfolio project's risk can be looked

at three levels. First, there is the project standing alone risk, which is a project's risk ignoring the fact that much of this risk will be diversified away as the project is combined with the firm's other projects and assets. Second, we have the Project's contribution-to-firm risk, which is the amount of risk that the project contributes to the firm as a whole: this measure considers the fact that some of the project's risk will be diversified away as the project is combined with the firm's other projects and assets, but ignores the effects of diversification of the firm's shareholders. Finally, there is systematic risk, which is the risk of the project from the viewpoint of a well-diversified shareholder; this measure considers the fact that some of a project's risk will be diversified away as the project is combined with the firm's other projects, and, in addition, some of the remaining risk will be diversified away by shareholders as they combine this stock with other stocks in their portfolios. This is shown graphically in figure 1. Should we be interested in the project standing alone risk? The answer is no. Perhaps the easiest way to understand why not is to look at an example. Let's take the case of research and development projects at Johnson & Johnson. Each year, Johnson & Johnson takes on hundreds of new R&D projects, knowing that they only have about a 10 percent probability of being successful. If they are successful, the profits can be enormous; if they fail, the investment is lost. If the company has only one project, and it is an R&D project, the company would have a 90 percent chance of failure. Thus, if we look at these R&D projects individually and measure their project standing risk, we would have to judge them to be enormously risky. However, if we consider the effect of the diversification that comes about from taking several hundred independent R&D projects a year, all with a 10 percent chance of success, we can see that each R&D project does not add much in the way of risk to Johnson & Johnson. In short, because much of a project's risk is diversified away within the firm, project standing alone risk is an inappropriate measure of the level of risk of a capital-budgeting project. Should we be interested in the project's contribution-to-firm risk? Once again, the answer is no, provided investors are well diversified, and there is no chance of bankruptcy. From our earlier discussion, we saw that, as a shareholder, if we combined our stocks with other stocks to form a diversified portfolio, much of the risk of our security would be diversified away. Thus, all that affects the shareholders is the systematic risk of the project and, as such, it is all that is theoretically relevant for capital budgeting.

4. METHODS OF INCORPORATING RISK INTO CAPITAL BUDGETING

The application of capital budgeting techniques has been assumed that the financial manager makes investment decisions under conditions of certainty and hence they are risk-free. This assumption implies that the NPV of an investment proposal is considered to be a fixed quantity and not a random variable, capable of assuming values other than the one specified. It is for this reason that once a positive value of the NPV of an investment proposal is obtained, it can be unequivocally stated that it is an acceptable proposal. Reality, however, is far from this, for the World is one of change and uncertainty. Thus, when we calculate that an investment would yield a particular rate of return per annum, we are aware that unforeseen events, like new and better technology, changes in the raw materials and so on may invalidate our estimates. Thus, some risk would usually be associated with a project so that variations in the cash may be observed, and that the degree of risk would vary with the different projects. There are many ways in which risk can be taken into account while investment decision-making. Basically, there are two approaches to risk adjustment. First, there is the certainty equivalent method, which involves adjusting the numerator of the equation of the present value. In this method, we reduce the value of the expected cash inflows to adjust for the risk- the riskier the cash flow, the greater the reduction

and, consequently, the lower the present value of the asset. Alternatively, the risk could be accounted for by adjusting the denominator of the present value equation- greater the riskiness of the cash flows, higher the discount rate and, therefore, the lower the present value of the asset. Besides, there are three interrelated methods of analyzing the investment proposals involving risk. They are: statistical distribution method (also called as mean-standard deviation approach), decision-tree method, and simulation technique. These methods are different from both, the certainty equivalent and risk-adjusted discount rate methods, because they allow the statistical distributions of the net present value to be explicitly estimated. Using these techniques, an interval rather than a point estimate of the expected NPV is presented and, thus, they are more general and objective. In addition to these methods, sensitive analysis is yet another method of analyzing risky proposals.

4.1 CERTAINTY EQUIVALENT APPROACH

Under this method, adjusting cash inflows rather than adjusting the discount rate compensates risk element. The expected uncertain cash flow of each year are modified by multiplying them with what is known as —certainty equivalent coefficient (CEO) to remove the element of uncertainty. This coefficient is determined by management’s preferences with respect to risk. For example, assume that the expected cash flow from an investment at the end of the first year is Rs.10,000 and that the management ranked this investment on par with another alternative investment with a certain cash flow of Rs.7,000, then Rs.7,000 is certainty equivalent of the risky cash flows of Rs.10,000. the ratio $7,000/10,000 = 0.7$ is called the certainty equivalent coefficient for the period, and is represented by α . In general terms: Certain cash flow $\alpha t =$ -----
 ---- Risky cash flow t The α ’s which lies between 0 and 1 are inversely related to the degree of risk involved. For a given problem, the certainty equivalent coefficients α ’s are determined for each of the time periods and then the given risky cash flows are multiplied by the irrespective coefficient values to obtain an equivalent certain cash flow stream. Once the risk is eliminated from the cash flows of the project, the NPV is obtained by using the risk-free rate of discount, to take an appropriate decision regarding its acceptance. Symbolically, $\alpha_1 C_1 \alpha_2 C_2 \dots \alpha_n C_n$ NPV = $C_0 + \frac{C_1}{(1+i)} + \frac{C_2}{(1+i)^2} + \dots + \frac{C_n}{(1+i)^n}$, $C_0 = -C$ (1+i) (1+i)² (1+i)ⁿ Where t stands for period; C_1, C_2, \dots are the future cash flows without risk adjustment, C is the initial capital outlay and αt is the certainty equivalent coefficient for period t and i is the discount rate. As earlier said that the value of certainty equivalent coefficient usually ranges between 0 and 1. A value of 1 implies that the cash flow is certain or the management is risk-neutral. In industrial situations, however, cash flows are generally uncertain and managements usually risk-averse. Hence, the certainty equivalent coefficients are typically less than 1. An illustrative table 1 of certainty equivalent coefficients for different types of investments is shown here. The certainty equivalent method is conceptually superior to the risk-adjusted discount rate method because it does not assume that risk increase with time at a constant rate. Each year’s certainty equivalent coefficient is based on the level or risk characterizing its cash flow. Despite its conceptual soundness it is not as popular as the risk-adjusted rate method. This is perhaps because it is inconvenient and difficult to specify a series of certainty equivalent coefficients but seemingly simple to adjust the discount rate. Notwithstanding this practical difficulty, the merits of the certainty equivalent method must not be ignored. The certainty equivalent approach can be summarized as follows: Table No.1 Certainty Equivalent Coefficients

	Year 1	Year 2	Year 3	Year 4
Replace Investments	0.92	0.87	0.84	0.80
Expansion Investments	0.89	0.85	0.80	0.75
New Product Investments	0.85	0.80	0.74	0.68
R&D Investments	0.75	0.70	0.64	0.58

Step 1: Risk is removed from the cash flows by substituting certainty equivalent cash flow for the risky cash flows. If the equivalent coefficient (α) is given, this is done by multiplying each risky cash flow by the appropriate α value.

Step 2: The risk-less cash flows are then discounted back to the present at the risk-less rate of interest.

Step 3: The normal capital budgeting criteria are then applied, except in the case of the internal rate of return criterion, where the project's internal rate of return is compared with the risk-free rate of interest rather than the firm's required rate of return. Example 1: A firm with a 10 percent required rate of return is considering building new research facilities with an expected life of 5 years. The initial outlay associated with this project involves a certain cash outflow of Rs.120,000. The expected cash inflows and certainty equivalent coefficients, α are as follows: --

Year	Expected Cash Flow(Rs)	Coefficient α	Equivalent Risk-less Cash Flow(Rs)
1	10,000	0.95	9,500
2	20,000	0.90	18,000
3	40,000	0.85	34,000
4	80,000	0.75	60,000
5	80,000	0.65	52,000

The risk-free rate of interest is 6 per cent. What is the project's net present value? To determine the net present value of this project using the certainty equivalent approach, we must first remove the risk from the future cash flows. We do so by multiplying each expected cash flow by the corresponding certainty equivalent coefficient, α , as shown below: -----

Year	Expected Cash Flow(Rs)	Coefficient α	Equivalent Risk-less Cash Flow(Rs)
1	10,000	0.95	9,500
2	20,000	0.90	18,000
3	40,000	0.85	34,000
4	80,000	0.75	60,000
5	80,000	0.65	52,000

The equivalent risk-less cash flows are then discounted back to the present at the risk-less interest rate, not the firm's required rate of return. The required rate of return would be used if this project had the same level of risk as a typical project for this firm. However, these equivalent cash flows have no risk at all; hence the appropriate discount rate is the risk-less rate of interest. The equivalent risk-less cash flows can be discounted back to the present at the risk-less rate of interest, 6 percent, as follows: -----

Year	Expected Cash Flow(Rs)	Coefficient α	Equivalent Risk-less Cash Flow(Rs)	Present Value at 6 percent
1	10,000	0.95	9,500	Rs.8,958.50
2	20,000	0.90	18,000	Rs.16,020.00
3	40,000	0.85	34,000	Rs.28,560.00
4	80,000	0.75	60,000	Rs.47,520.00
5	80,000	0.65	52,000	Rs.38,844.00

NPV = -Rs.120,000 + Rs.8,958.50 + Rs.16,020 + Rs.28,560 + Rs.47,520 + Rs.38,844 = Rs.19,902.5. Applying the normal capital-budgeting decision criteria, we find that the project should be accepted, as its net present value is greater than zero.

Example 2: GVK&GPK Limited is examining two mutually exclusive proposals. The management of the company uses certainty equivalents (α) approach to evaluate new investment proposals. From the following information pertaining to these projects, advice the company as to which project should be taken up by it.

Proposal	Year	Cash Flow	C.E α	Adjusted Cash Flow
Proposal X	0	(40,000)	1.00	(40,000)
	1	20,000	0.90	18,000
	2	18,000	0.80	14,400
	3	12,000	0.80	9,600
	4	10,000	0.60	6,000
Proposal Y	0	(40,000)	1.00	(40,000)
	1	15,000	0.95	14,250
	2	18,000	0.95	17,100
	3	12,000	0.80	9,600
	4	10,000	0.70	7,000

The risk-free borrowing rate is 8 per cent. Solution: Year t (1) Cash Flow Ct (2) C.E α (3) Adjusted Cash Flow at Ct (2) X (3) = (4) PV factor @8% (5) Total PV (4) X (5) = (6)

16,668.00 2 18,000 0.80 14,400 0.8573 12,345.12 3 12,000 0.80 9,600 0.7938 7,620.48 4 10,000 0.60 6,000 0.7350 4,410.00 Total NPV (Proposal X) = 1,043.60 0 (30,000) 1.00 (30,000) 1.000 (30,000) 1 15,000 0.95 14,250 0.9260 13,195.50 2 12,000 0.80 9,600 0.8573 8,230.08 3 10,000 0.75 7,500 0.7938 5,953.50 4 8,000 0.70 5,600 0.7350 4,116.00 Total NPV (Proposal Y) = 1,495.08 NPV being higher for Proposal Y, this should be preferred and accepted.

Problem 1. A company is considering two mutually exclusive projects. The company uses a certainty equivalent approach. The estimated cash flow and certainty equivalents for each project are as follows:

Project	Year	Cash Flow Rs.	Certainty Equivalents
Project 1	0	-30,000	1.00
	1	15,000	0.95
	2	25,000	0.90
	3	15,000	0.85
Project 2	0	-40,000	1.00
	1	10,000	0.70
	2	15,000	0.70
	4	10,000	0.65

Which project should be accepted, if the risk-free discount rate is 15 per cent. Solution: Project 1. $NPV = 1.0(-30,000) + \frac{15,000}{(1.05)} + \frac{25,000}{(1.05)^2} + \frac{15,000}{(1.05)^3} + \frac{10,000}{(1.05)^4} = Rs.6,658$. Project 2. $NPV = 1.0(-40,000) + \frac{10,000}{(1.05)} + \frac{15,000}{(1.05)^2} + \frac{10,000}{(1.05)^3} + \frac{10,000}{(1.05)^4} = Rs.9,942$. Project 2 should be preferred since it has higher NPV.

Problem 2: GVL Manufacturing and Spinning is considering two mutually exclusive projects. The company uses a certainty equivalent approach. The estimated cash flow and certainty equivalents for each project as follows:

Project	Year	Cash Flow Rs.	Certainty Equivalents
Project 1	0	-15,000	1.00
	1	7,500	0.95
	2	12,500	0.90
	3	7,500	0.85
Project 2	0	-20,000	1.00
	1	5,000	0.70
	2	7,500	0.70
	4	5,000	0.65

Which project should be accepted, if the risk-free discount rate is 5 per cent. Solution: Project 1. $NPV = 1.0(-15,000) + \frac{7,500}{(1.05)} + \frac{12,500}{(1.05)^2} + \frac{7,500}{(1.05)^3} + \frac{5,000}{(1.05)^4} = Rs.3,764$. Project 2. $NPV = 1.0(-20,000) + \frac{5,000}{(1.05)} + \frac{7,500}{(1.05)^2} + \frac{7,500}{(1.05)^3} + \frac{5,000}{(1.05)^4} = Rs.4,956$. Project 2 should be preferred since it has higher NPV.

Problem: 3 GVK Ltd. is considering two mutually exclusive projects. The initial cost of both projects is Rs.5,000, and cash has an expected life of four years. Under three possible states of economy, their annual cash flows and associated probabilities are as follows:

Economic State	Probability	Project A (Rs)	Project B (Rs)
Good	0.3	6,000	5,000
Normal	0.4	4,000	4,000
Bad	0.3	2,000	3,000

If the discount rate is 7 percent, which project should the company accept? Solution: ENCF = Estimated Net Cash Flows ENPV = Estimated Net Present Values. Project A: $ENCF = (0.3 \times 6,000) + (0.4 \times 4,000) + (0.3 \times 2,000) - Rs.4,000$. $\sigma^2 = (6,000 - 4,000)^2(0.3) + (4,000 - 4,000)^2(0.4) + (2,000 - 4,000)^2(0.3) = 24,00,000$ $\sigma = \sqrt{24,00,000} = Rs.1,549.2$ $ENPV = -5,000 + 4,000 \times PVA_{0.075} = -5,000 + 4,000 \times 4.1000 = Rs.11,400$ Project B: $ENCF = (0.3 \times 5,000) + (0.4 \times 4,000) + (0.3 \times 3,000) - Rs.4,000$. $\sigma^2 = (5,000 - 4,000)^2(0.3) + (4,000 - 4,000)^2(0.4) + (3,000 - 4,000)^2(0.3) = 6,00,000$ $\sigma = \sqrt{6,00,000} = Rs.774.6$ $ENPV = -5,000 + 4,000 \times PVA_{0.075} = -5,000 + 4,000 \times 4.1000 = Rs.11,400$ Projects A and B have equal expected net present value of Rs.11,400 but the standard deviation of Project A's cash flow is higher than that of Project B. Therefore, GVK Ltd. should choose Project B.

4.2. RISK-ADJUSTED DISCOUNT RATES.

A finance manager being risk averter when given choice between two projects promising the same rate of return but different in risk would prefer the one with the least perceived risk. He will require compensation for bearing risk so that overall value of the company remains unaffected by assumption of the risky project. There are several methods of adjusting risk in

investment decisions, which can be classified broadly in two groups, viz., formal and informal methods.

4.2.1 Formal Method Among the formal methods of adjusting risk in capital budgeting decisions, the most popular ones are: Risk adjusted discount rate and certainty equivalent approach.

4.2.2 Informal Method This is the most common method of adjusting risk. The finance manager recognizes that some projects are more riskier than others. He also finds that riskier projects would yield more than what risk free or less risky projects promise. To choose a project carrying greater risk as against the less risky one, the finance manager decides on subjective basis (by using his discretion), the margin of difference in rate of return of both types of projects. The manner of fixing the standard is strictly internal known to the finance manager himself and is not specified. The use of the risk-adjusted discount rates is on the notion that the investors expect higher returns for more risky projects. In this method of incorporating risk, the risk-free rate of return, i , is adjusted upward by adding a suitable risk premium, Φ , representing compensation, the risk-averse investors in the market would require before they will consent to the risk of the investment. Thus, if k is the required rate of return, we have $k = i + \Phi$ The relationship between risk and return is shown in the following figure. Chart 2 Risk and Return relationship R* R Compensation for R taking risk- k risk premium Φ ----- Risk (%) *RRRk = Required rate of return k The risk-free rate compensates the investors for deferring the consumption of goods and services to make investments. In effect, it is a reward only for waiting and applies only to those investments on which there is no chance that the realized rate of return will be different from the rate expected. If, however, risk is also to borne, the risk premium adds the necessary compensation for bearing that risk. In a given situation, the manager determines the required rate of return by adjusting the risk-free rate of return, by adding the necessary risk premium in keeping the risk that the proposal carries. Once the appropriate required rate of return for a project with a given level of risk is determined, the cash flows are discounted to present values using this risk-adjusted rate is obtained as: $NPV = \sum_{t=0}^n \frac{C_t}{(1+k)^t}$ Example 3: The management of the Prathiba Limited, a manufacturer of toys in New Delhi, is considering the introduction of a new type of a toy-remote control motorbike. In the past, the management has been quite conservative in making investments in new products and considers this project quite a risky one. The management feels that the normally used required rate of return of 10% is not proper in this case and, instead, a return of 16% is expected on this project. The project, a requiring an outlay of Rs.1,50,000 has the following expected returns over its estimated life of 6 years. Year : 1 2 3 4 5 6 Ca flow (₹000 Rs.) : 30 30 50 60 40 25 Should the project be undertaken? Solution: The net present value, using the 16% discount rate as follows: Year Cash Flow PV factor @ 16% Present Value 1 30000 0.8621 28563 2 30000 0.7432 22296 3 50000 0.6407 32035 4 60000 0.5523 33138 5 40000 0.4761 19044 6 25000 0.4104 10260 ----- 142636 Less: Cash outflow 150000 ----- NPV = (7364) ----- Since the NPV is negative the proposal is not an acceptable one. Note, however, that if the usual rate of discount of 10% were used, the project would have NPV equal to Rs.20,158, and therefore, be acceptable. -----

4.3. STATISTICAL DISTRIBUTION APPROACH

While using the certainty equivalent approach, the risk-free discount rate may be easily approximated (may be, for instance, by the interest rate on government bonds) but difficulties

may arise in determining the trade-off between risk and return for the purpose of converting a particular distribution of NPV into its certainty equivalent. In a similar manner, in using the risk-adjusted discount rate method, the determination of the risk-premium to be added to the risk-free rate of return would pose difficulty. In using either of these approaches it is important that we should be able to measure the degree of risk associated with the project(s) in question. In the statistical distribution approach, the degree of risk associated with a project is sought to be measured in terms of the variance (or standard deviation) of the NPV distribution, and the investment decisions are taken considering the expected (mean) value, and its standard deviation, of the net present value distribution. This information about the project risk may also be usefully employed for calculating certainty-equivalent for the uncertain returns from the investment proposal, as also it is a major factor in calculating the size of the risk-adjusted discount rate to use. The derivation of the probabilistic information about investment proposals owes its origin to the work of Frederick Hillier. In this method of considering risky investment proposals, the net cash flow from an investment in each period is viewed as a random variable which can assume any one of the possible values. The method requires that probability distribution of cash flows for each of the years be obtained and considered. Using the cashflow distribution, the expected value of the NPV distribution and its variance are calculated in the first instance. These are calculated as discussed here.

4.3.1 Expected value of NPV supposes that there is an investment proposal with cash flow whose probability distributions are given for each of the n years of the project life. The cash flows have means equal to C_1, C_2, \dots, C_n , with standard deviations equal to $\sigma_1, \sigma_2, \dots, \sigma_n$ respectively. For calculating the expected value of the NPV distribution, we shall add the discounted mean value of the cash flows for each of the n time periods. This is gives: $E(NPV) = C_0 + \frac{C_1}{(1+I)^1} + \frac{C_2}{(1+I)^2} + \dots + \frac{C_n}{(1+I)^n}$ $E(NPV)$ is also know as the expected monetary value (EMV) of the project. As before, if this NPV exceeds zero, the proposal becomes acceptable while if it is lower than zero, the proposal becomes rejectable.

EXAMPLE 4: The Prathiba Company is considering to make investment in a proposal which requires an outlay of Rs.1,20,000. The project has a life of three years over which the following cash inflows are likely to be generated.

Year	1	2	3
Cash Flow	30000	30000	40000
Probability	0.2	0.1	0.3
Cash Flow	40000	40000	50000
Probability	0.4	0.4	0.3
Cash Flow	50000	80000	80000
Probability	0.3	0.4	0.2
Cash Flow	60000	90000	100000
Probability	0.1	0.1	0.2

The management feels that the expected cash flows in the various periods may be considered to base its decision about acceptance or rejection of the project. If the discount rate is 10%, should the proposal be accepted? Solution: We shall obtain the expected cash inflow for each of the years. This is calculated as follows:

Year	T	Cash Flow	C _{ti}	Probability	P _{ti}	Expected Value
1	1	30000	40000	50000	60000	0.2
2	2	30000	50000	80000	90000	0.1
3	3	40000	40000	60000	80000	0.3
4	4	50000	60000	80000	100000	0.4
5	5	60000	90000	100000	120000	0.3
6	6	80000	100000	120000	180000	0.2
7	7	100000	120000	180000	240000	0.1

Now the expected NPV can be calculated as:

Year	Expected Cash Flow	PV Factor @ 10 %	Present Value
0	-120000	1.0000	-120000
1	43000	0.9091	39091.3
2	64000	0.8264	52889.6
3	66000	0.7513	46585.8

Expected NPV = 21566.8 Since the expected NPV of the proposal is greater than zero, it is an acceptable one.

4.3.2 Variance of NPV In the discussion on the variance of the NPV distribution, Hillier has given an analysis of three cases. In the first case, the cash flows between different periods are assumed to be independent of one another. This is to say; the cash flows of one period are not

related to the cash flows of another period. In the second case, the cash flows between different periods are assumed to be perfectly correlated. The third case deals with the mixed situation in which a part of the flows are perfectly correlated and part are independent. Obviously, when we consider more than two periods of time, the cash flows cannot all be perfectly negatively correlated with each other. This explains why Hillier's analysis is restricted to the case of positive correlation. Now, we consider the three cases in turn: (a) Independent net cash flows: When net cash flows for the various years are independent of each other, then the calculation of the variance of the distribution of cash flow becomes a difficult task. This is because independence substantially increases the number of possible outcomes. To illustrate, suppose a project has a life of 3 years and in each of the years, there are four cash flow values possible with some given probabilities. Under the assumption of independence, a total of $4 \times 4 \times 4 = 64$ combinations are possible. The probability of occurrence of each of the combinations is given by the product of the probabilities of the particular cash flow values of different years entering into that combination. For this probability distribution, we can find the present values of each of the possible cash flow streams (64 in our example) and determine the expected value and the variance of present values in the usual way. However, the complications in calculations can be avoided and instead the variance can be obtained directly using the following formulation:

$$V(NPV) = \sigma^2 = \sigma^2_0 + \frac{\sigma^2_1}{(1+i)^2} + \frac{\sigma^2_2}{(1+i)^4} + \dots + \frac{\sigma^2_n}{(1+i)^{2n}}$$

Unless otherwise stated, the cash flows of a given project may be taken to be independent. (b) Perfectly Correlated Cash Flows: The assumption of perfect correlation between the cash flows of the successive years implies, technically, that if random factors cause a cash flow C_j (for the j th year) to deviate from its mean value by a standard deviation, the same factors will cause the cash flow C_k (for the k th year) to deviate from its own mean in the same direction by a standard deviation. In the situation in which the periodic net cash flows are given to be perfectly correlated, the variance of NPV distribution can be computed as follows:

$$V(NPV) = \sigma^2_0 + \frac{\sigma^2_1}{(1+i)^2} + \frac{\sigma^2_2}{(1+i)^4} + \dots + \frac{\sigma^2_n}{(1+i)^{2n}}$$

It may be noted that the standard deviation value when the cash flows are perfectly correlated would be higher than when they are independent. (c) Mixed Case: There are very few investments for which the net cash flows are either completely independent or perfectly correlated. Closer to the reality is the 'mixed' case in which cash flows are partially dependent and partially independent. To understand this situation, consider a very simple case where a company is contemplating to introduce a new product, whose life is expected to be only three years. The market acceptance of the product may be unsatisfactory, satisfactory, or excellent. How the product will be accepted in the first year will determine how it will be accepted in the second year. In this respect, it is a case of dependence. Also, the product sales are influenced by general economic conditions, which may be poor, good, or excellent. However, economic conditions in one year do not affect the economic conditions in the next year. From this standpoint, it is a case of independence. For the mixed case as well, all possible combinations of the cash flows are obtained and their joint probabilities calculated. The present value of each of the cash flow streams is then calculated and we can get the mean and the standard deviation as usual. In the simple case, however, where the cash flows C_j 's can be broken down into two components: C_j' and C_j^* , where C_j' is the part of C_j which varies independently and C_j^* is the part of C_j that is perfectly correlated with C^* in any other period, the variance can be obtained using the formula given above jointly get the following:

$$V(NPV) = \sigma^2 = V(C_0) + \dots + \frac{V(C'_1)}{(1+i)^2} + \frac{V(C'_2)}{(1+i)^4} + \dots + \frac{V(C'_n)}{(1+i)^{2n}} + \frac{V(C^*_1)}{(1+i)^2} + \frac{V(C^*_2)}{(1+i)^4} + \dots + \frac{V(C^*_n)}{(1+i)^{2n}}$$

$$+ \frac{C_1}{(1+i)^2} + \frac{C_2}{(1+i)^4} + \dots + \frac{C_n}{(1+i)^n} + \frac{C_0}{(1+i)^0} + \dots + \frac{C_n}{(1+i)^n}$$
 Once the expected net present value and its standard deviation (from variance) value are obtained, the riskiness of the project can be measured. The standard deviation is a measure of absolute amount of risk associated with a given project. While it is a useful measure for the purpose of risk evaluation, it is not suitable when comparative riskiness of the projects is to be considered. In order to compare the various projects, we should compute their respective coefficients of variation. We have, Standard deviation Coefficient of variation = $\frac{\text{Standard deviation}}{\text{Expected (mean) value of NPV}}$ A higher coefficient value points to a higher risk associated with a project.

4.4. SIMULATION APPROACH

In considering risky investments, we can also use simulation to approximate the expected value of net present value, the expected value of internal rate of return, or the expected value of profitability index and the dispersion about the expected value. By simulation we mean testing the possible results of an investment proposal before it is accepted. The testing itself is based on a model coupled with probabilistic information. Making use of a simulation model first proposed by David Hertz, we might consider, for example, the following factors in deriving a project's cash-flow stream. Market Analysis • Market size • Selling price • Market growth rate • Share of market (which controls physical sales volume) Investment Cost Analysis • Investment required • Useful life of facilities • Residual Value of investment Operating and Fixed Costs • Operating costs • Fixed costs Risk analysis based on simulation approach involves the following steps:

1. List all the basic economic variables that will affect the outcome of the decision.
2. Estimate the range of variables for each of these variables that are subject to uncertainty.
3. State in equation form the economic or accounting relationships that connect the basic variables to the final outcome on which the decision will be based.
4. With the aid of computer randomly select a specific value for each basic variable according to the chances this value has of actually turning up in the future. Given these specific values, use the equation in step 3 to calculate the resulting outcome.
5. Repeat this process to define and evaluate the probability of the occurrence of each possible rate of return. Since there are literally millions of possible combinations of values, we need to test the likelihood that various specific returns on the investment will occur. Probability distributions are assigned to each of these factors based on management's assessment of the probable outcomes. Thus, the possible outcomes are charted for each factor according to their probability of occurrence. Once the probability distributions are determined, the next step is to determine the internal rate of return (or net present value calculated at the risk-free rate) that will result from a random combination of the nine factors just listed. To illustrate the simulation process, assume that the market-size factor has the following probability distribution:

Market size (in thousands of units)	450	500	550	600	650	700	750
Probability occurrence	.05	.10	.20	.30	.20	.10	.05

 Now suppose that we have a roulette wheel with 100 numbered slots, on which numbers 1 through 5 represent a market size of 450,000 units, 6 through 15 represent a market size of 500,000 units, 16 through 35 represent a market size of 550,000 units and so on through 100. As in roulette, we spin the wheel, and the ball falls in one of the 100 numbered slots. Assume that the ball lands on number 26. For this trial, then, we simulate a market size of 550,000. Fortunately, we do not need a roulette wheel to

undertake a simulation. The same type of operation can be carried out on a computer in a much more efficient manner. Simulation trials are undertaken for each of the other eight factors. Jointly, the first four factors (market analysis) give us the annual sales per year. Factors 8 and 9 give us the operating and fixed costs per year. Together, these six factors enable us to calculate the annual incremental revenues. When trial values for these six factors enable us to calculate the annual incremental revenues. When trial values of these six factors are combined with trial values for the required investment, the useful life and the residual values of project, we have sufficient information to calculate the internal rate of return (or net present value) for that trial run. Thus, the computer simulates trial values for each of the nine factors and then calculates the internal rate of return based on the values simulated. The process is repeated many times. Each time we obtain a combination of values for the nine factors and the internal rate of return can be plotted in a frequency distribution. From this frequency distribution we are able to identify the expected value of internal rate of return and the dispersion about this expected return.

Corporate Strategy and Investment Decisions

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INTRODUCTION Real investment decisions are not made in a vacuum; they are embedded in a company's strategy. By determining the scope of the company, the strategy limits the set of investment projects available to managers. By identifying the company's competitive advantages, the strategy helps assess the sources of synergies in mergers and acquisitions (M&As). Understanding the nature of competition and the business landscape is also useful for forecasting sales and advertising, identifying real options, and coordinating financing and investment opportunities. A strategy is the formulation and implementation of a company's key decisions. A well-designed strategy should include a statement of the company's goals, some criteria to decide which activities a company should and should not do, and a view on how the company should be organized internally and how it should deal with the external environment. Furthermore, a strategy must also contain an explanation for its logic, that is, an explanation for why the goals will be achieved by adhering to the strategy. This chapter presents an overview of the main ideas in strategic management, which is a management discipline that derives most of its intellectual foundations from economics. The focus of this chapter is on the role of strategic considerations for corporate investment decisions and the valuation of projects and companies. As an introductory chapter, it emphasizes general principles and ideas and does not discuss detailed applications and examples. The main focus of the chapter is on corporate strategy. Corporate strategy studies the relevant strategic issues concerning the corporation as a whole, rather than a specific business unit. A corporation may operate in a single industry or in many different ones. A common use of the term corporate strategy denotes the study of strategy for the multimarket corporation, in contrast to business unit strategy, which applies to single-industry corporations and narrowly defined divisions within a corporation (Porter, 2008). Because the starting point for the analysis of corporate strategy is the company's portfolio of resources, rather than the products that it sells, this chapter applies the term corporate strategy to both single and multiple industry companies. By focusing on what companies can do particularly well, the 19 P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton 20 Capital Budgeting Valuation analysis of corporate strategy can identify factors that allow these companies to create value in different markets and industries. Thus, understanding corporate strategy is useful even when a company is currently operating in a single, narrowly defined industry. The chapter also provides a selective review of the academic literature on

corporate investment and its relation to business strategy. Examples include the study of corporate behavior over the firm's life cycle, investment in conglomerate firms, the boundaries of the firm, and interactions between financing and investment decisions. These examples provide case-based and statistical evidence of the importance of strategy for investment decisions.

THE IMPORTANCE OF STRATEGY FOR INVESTMENT DECISIONS

Methods for evaluating project investment decisions are usually discussed without reference to corporate strategy issues. The typical capital budgeting method (directly or indirectly) involves three steps:

- (1) estimating cash flows generated by the project,
- (2) finding an adequate discount rate for each cash flow, and
- (3) estimating the initial cost of the investment (including opportunity costs).

The main example of this is discounted cash flow (DCF) analysis, which is widely used in practice and occupies central stage in corporate finance and valuation textbooks. In DCF analyses, much attention is devoted to the estimation of discount rates; not nearly as much is devoted to the estimation of cash flows (and even less to the cost of initial investment, which is usually simply assumed to be known). Explicit models of financial asset markets such as the capital asset pricing model (CAPM) commonly infer the discount rates to be used in valuation models. However, the approach to estimating cash flows is usually ad hoc and informal. Sensitivity analyses usually reveal the importance of assumptions concerning the evolution of cash flows, especially the ones implicit in the project's terminal value. Small differences in growth rates for operating cash flows can lead to valuation differences that often dwarf those associated with changes in discount rates. So what explains the asymmetry between the treatment of discount rates and that of cash flows? There is at least one practical reason. Financial asset markets are often modeled as markets in which the law of one price holds. In such frictionless financial markets, the price of a given asset reflects the market value of the asset's characteristics, which are summarized by its expected rate of return and its risk profile. Asset prices adjust until all assets yield the same risk-adjusted return. This is an implication of the assumption of no arbitrage opportunities. Translating these ideas into the language of project valuation, there are no financial investments with positive net present value (NPV) in frictionless assets markets. Contrast this situation with the task of valuing corporate investment in non-financial projects. The main challenge in capital budgeting is the identification of positive NPV opportunities. In other words, the whole idea of corporate investment is based on the notion that the law of one price does not hold for investment in real assets. That is, a company may have an opportunity to invest in a project P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton CORPORATE STRATEGY AND INVESTMENT DECISIONS 21 that, once fully adjusted for risk, yields a return that is significantly higher than that of (virtually) riskless financial assets (such as U.S. government bonds). When making capital budgeting decisions, the assumption of zero-NPV investments in financial assets allows simplifying the potentially very complicated task of comparing project cash flows in different periods and under different scenarios. Analysts only need to understand the risk properties of these cash flows and then look at financial markets to figure out the appropriate discount rate associated with each type of risk. As the market does not explicitly give a "price for each type of risk," models such as the CAPM are needed, as they enable extraction

of the relevant discount rates from observed data. Although in practice different models and different data give different answers, the main benefit of the assumption of no arbitrage in frictionless financial markets is to allow the use of simplified models and formulas to get estimates of discount rates. As the law of one price does not hold for real investments, simplified models such as those available for financial assets cannot be easily developed for real investments. In particular, no benchmark model exists for estimating cash flows. Instead, a long list of formal and informal theories have been developed to understand why there exist positive NPV opportunities in real investments. This chapter refers to these theories collectively as strategy. Strategy is usually viewed as being outside the realm of financial economics. Thus, strategy is only briefly, if at all, discussed in corporate finance and valuation textbooks. In practice, however, an interrelation occurs among strategic, financial, and investment decisions. In academic finance, many empirical studies focus on interactions between strategic considerations and corporate investment. The key practical idea in strategic management is simple: Understanding the reasons some projects have positive NPVs can help a firm find those positive-NPV projects. Thus, most of the academic writings on strategy focus on identifying the sources of positive NPV opportunities, also called the sources of value. Understanding strategy is important not only for selecting the set of projects worth being considered in capital budgeting analyses but also for the difficult task of estimating cash flows in DCF analyses. The material covered in this chapter is not detailed enough to offer practical advice as to how to estimate cash flows. Rather, the chapter discusses general principles in business strategy that are useful for many valuation exercises. However, Chapter 10 provides a detailed discussion of estimating cash flows.

KEY CONCEPTS AND IDEAS IN STRATEGY

An example provides a useful starting point. General Electric (GE) is a conglomerate, that is, a company that operates in many different industries, such as jet engines, power generation, and financial services, among others. Jack Welch, GE's legendary chief executive officer (CEO), ran the company from 1981 to 2001. As part of the strategy intended for GE, he set the goal of "being number one or number two in every industry GE operates in." In fact, GE managers were told that if a division was not number one or number two, they should fix it, sell it, or shut it down. This simple strategy description is useful because it tells managers what to do and helps corporate headquarters allocate resources across divisions. According to such a strategy, GE would hardly fund even positive NPV projects if P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton 22 Capital Budgeting Valuation divisions are laggards in their industries, unless the investment is aimed at "fixing" the division so that it becomes a leader. Although such a strategy is useful as a guide for the allocation of funds across unrelated businesses, it does not explain why being number one or number two is the best way of creating value for shareholders. A strategy must always explain its underlying logic: why the stated goals will deliver shareholder value. Although many believe that GE's overall strategy under Welch was responsible for delivering huge gains for shareholders, much controversy still exists about why it did so. In fact, some statistical evidence indicates that conglomerates such as GE normally do not outperform a comparable portfolio of stand-alone (i.e., single industry) companies (see Lang and Stulz, 1994; Berger and Ofek, 1995). But before reviewing the literature on investment and performance in diversified corporations, the basic theoretical ideas that aim to explain the sources of superior performance—the sources of value—for companies and businesses more generally should be examined. Competitive Advantage One of the best known concepts in strategy is that of competitive advantage (Porter, 1980). Competitive advantage is a firm's attribute that may allow the firm to generate economic

profits. The term “may” generate profits is used because the logic of the strategy must first be tested. If misused, a potential competitive advantage may not deliver superior performance. In this definition, economic profit refers to the (risk-adjusted) present value of revenue minus all costs, including the opportunity cost of capital. For simplicity, this discussion abstracts from capital market imperfections and other frictions and considers shareholder value as being equivalent to economic profit. In practice, there are situations in which such imperfections and other frictions should be treated differently. The attribute that gives the firm a competitive advantage in a specific market can be a number of things. It could be an asset that the firm owns, including tangible assets (e.g., plants, machines, land, mines, and oil reserves), proprietary intangible assets (e.g., patents, intellectual property, and trademarks), or nontradable intangible assets (e.g., reputation, know-how, culture, and management practices). A competitive advantage could also arise from the company’s position in the industry, which generates barriers to entry due to government protection, first-mover advantages (e.g., brand name and reputation), control of distribution channels, market size, or technology (e.g., network effects, platforms, and standards compatibility). Regardless of its origins, a sustainable competitive advantage must be built upon something unique. A unique asset or position is something that is very difficult for others to imitate or reproduce. It may be prohibitively costly for most, but a few could buy or create such assets or positions. Because these assets or positions need not be literally unique, perhaps a better term would be scarce resources. As long as this qualification is understood, no harm is done by sticking to the traditional terminology. Consider the example of Apple Inc., which is a company that has successfully delivered shareholder gains over extended periods of time (although not P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton CORPORATE STRATEGY AND INVESTMENT DECISIONS 23 necessarily at every moment in its history). Some believe that one of Apple’s main competitive advantages is its excellence in product design. By producing computers and other consumer electronic products with innovative designs, Apple can target a niche of consumers who value design. But excellence per se is not enough. What prevents other competitors from imitating Apple? Apple must be better at producing well-designed gadgets than other firms. In other words, Apple needs to have a unique capability in design. The importance of asset uniqueness is easily understood by analogy to hypothetical markets in which assets are not unique. In the frictionless financial markets found in finance textbooks, financial assets are never unique; they can be easily replicated and traded with no direct costs. In such markets, no trader has a competitive advantage; all buy and sell zero-NPV securities. In the aggregate, financial markets create economic value by allowing investors to diversify optimally and by allocating capital efficiently. But the production of financial securities by itself does not generate extra rents. Added Value Having a unique resource, capability, or position is a necessary condition for maintaining a sustainable competitive advantage, but it is not sufficient. Continuing with the example of Apple, according to Kahney (2009), Steve Jobs (Apple’s CEO) once insisted on changing the design of the original Mac’s motherboard because it “looked ugly.” Engineers and other managers replied that consumers did not care about how their motherboards look; motherboards are located inside computers and thus cannot be seen. But that argument did not convince Jobs. Eventually, for technical reasons, he was forced to drop the idea. Despite the fact that Job is a brilliant strategist, his insistence on exploiting Apple’s excellence in design for improving the appearance of motherboards seems difficult to justify. There is no point in using one’s unique capabilities to produce something for which consumers are not willing to pay. A unique capability must be able to create value in order to be called a competitive advantage. Brandenburger and Stuart (1996) develop a rigorous framework for the analysis of value-based strategies. They start from the fact that value creation must imply a wedge between what customers are willing to pay for a product and the supplier’s opportunity cost of producing it. This wedge is the total value created by a (buying and selling) transaction. Brandenburger and Stuart develop the concept of a company’s added value to a specific transaction, which is the total value created by the transaction in which the company participates minus the value of this

transaction without the company. Added value is a very simple idea. If a company is really unique and valuable, some value would be permanently lost if the company ceased to exist. Such unique and valuable companies have positive added values. Thus, a positive added value is a necessary condition for a sustainable competitive advantage. The concept of positive added value is related but not identical to positive NPV in capital budgeting analysis. Having positive added value is a necessary condition for a project to have positive NPV. However, the NPV concept measures the total value that is captured by shareholders, which is in general just a fraction of the project's added value. P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton 24 Capital Budgeting Valuation Industry Analysis In perfectly competitive product markets with free entry, such as those found in microeconomics textbooks, producers do not own unique assets. Their added value is zero. Consequently, they all enjoy zero economic profit. In monopolistic markets, in contrast, an assumption is that competition is somehow restricted, and economic profits are positive. Porter (1980) realized that competitive advantage is intimately linked to monopoly power, or, in other words, to the strength of competitive forces in the industry. He thus saw a firm's position within its industry as one of the key sources of competitive advantage. The key to identifying positional advantages is to understand the industry in which a firm operates. In the strategy literature, this is called industry analysis. The goal of industry analysis is to facilitate the design of strategies by describing the competitive environment in which the firm operates. Firms may find themselves in a unique position in the industry, and such a position may or may not give them a competitive advantage. Industry analysis is usually identified with Porter's (1980) five forces framework. Porter argues that the attractiveness of an industry can be assessed by carefully analyzing the relative strengths of five competitive forces: (1) the intensity of rivalry among industry incumbents, (2) the bargaining power of suppliers, (3) the bargaining power of buyers, (4) the threat of entry of new firms, and (5) the availability of substitute products. The Industry Life Cycle A natural complement to the static industry analysis framework is a set of empirical regularities that are jointly known as the industry (or product) life cycle (e.g., Keppler, 1996). The industry life-cycle view recognizes that industries evolve over time, but also that they often change in predictable ways. As the strength of each of the competitive forces varies over the different stages of the life cycle, successful firm strategies must also evolve over time and adapt themselves to the new challenges. In its simplest form, the industry life-cycle view postulates that the life of an industry has three different stages: emergence, growth, and maturity. Some also add a fourth one, which is the stage of decline. In the emergence stage, many small firms experiment with different varieties of a product. Many firms enter the industry and sales levels and growth rates are low. The growth stage begins when a dominant product format or business model arises. When consolidation in the industry occurs, the number of firms falls and entry in the industry becomes rare. Industry sales grow at high rates. In this stage, most incumbent firms direct their innovation efforts toward improving processes rather than products. Finally, in the maturity stage, dominant firms have stable market shares and generate high profits. However, they experience low rates of sales growth and have few investment opportunities. Applications Industry analysis including the industry life cycle is widely used, although mostly informally, in valuation exercises. The following list provides some examples P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton CORPORATE STRATEGY AND INVESTMENT DECISIONS 25 of how industry analysis can offer insights that are valuable for investment decisions: Understanding the nature of competition in the industry can be useful for forecasting revenues (sales) and some of the costs such as advertising and research and development (R&D) expenditures. A typical approach to estimating future sales is using the average sales growth rate in the industry. This assumption may be reasonable if the sources of value from a project are cost efficiency improvements rather than gains in market share. In industries in which suppliers are powerful, efficiency improvements at the firm level could be partly appropriated by suppliers via contract renegotiation. Thus, one must be careful not to overestimate the cash flows generated by such efficiency improvements. For example, in an

industry with a unionized workforce, not only may efficiency improvements be more difficult to achieve, but also the gains from such improvements may end up being shared with employees. Analysts implicitly use the industry life-cycle view in project valuation. For example, many pro forma estimates assume some higher rates of industry growth for the first few years and then a much slower growth rate implicit in the project's terminal value. Challenges to Traditional Industry Analysis Industry analysis, while extremely useful as a normative tool for strategic decision making, has been criticized on two fronts. First, the typical approach to industry analysis puts too much emphasis on value capture while paying little attention to value creation. In the most straightforward applications of Porter's (1980) principles, the firm's goal is to capture the largest possible share of potential industry profits. The five competitive forces, if strong, limit the ability of an incumbent firm to capture a large share of the value created in the industry. In contrast to this emphasis on value capture, Nalebuff and Brandenburger (1996) emphasize the importance of what they call "co-opetition," which is the exertion of joint efforts by competitors to increase potential profits for the industry as a whole. The second objection to industry analysis concerns its excessive focus on differences among industries rather than on differences among companies in the same industry. The key empirical challenge to the conventional view comes from an influential paper by Rumelt (1991), who shows that most of the variation in profitability across firms comes from intra-industry heterogeneity rather than from differences among industries. Such an interpretation has been challenged empirically by McGahan and Porter (1997). Although Porter's (1980) approach can easily accommodate such criticisms, these challenges are important because they underscore the usefulness of complementary frameworks for the analysis of strategy. Of particular importance are the analyses that place the firm, rather than the industry, at the center stage. Theories of the Firm To understand firm heterogeneity within industries and its relations to competitive advantage, reviewing some of the most influential theories of the firm is important. P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton 26 Capital Budgeting Valuation Starting with Coase (1937), academic research in economics and management has nurtured a long tradition of trying to unveil the "essence of the firm." Some scholars believe that discovering the true nature of the firm permits understanding realworld firms. Whether things or concepts have "essences" is questionable. From a practical standpoint, finding this essence is not essential, but having a practical definition of the firm may be needed. A good "theory of the firm" is one that helps managers identify and choose the best projects among all feasible ones. It must also provide a definition of "best." A brief review of three theories of the firm follows. The first theory views the firm as a nexus of contracts. Most valuation and project selection frameworks implicitly assume this view. The second one views the firm as an efficient solution to the problem of economizing on transaction costs. Such a view is particularly useful for understanding acquisitions and divestitures, especially in those cases involving vertical integration or outsourcing decisions. The third theory views the firm as the locus of crucial resources. This view is particularly helpful for understanding corporate strategy and value creation. The Firm as a Nexus of Contracts Some argue that the firm is nothing more than a nexus of contracts. Under this view, most stakeholders such as employees, bondholders, and suppliers are thought to be protected by bilateral contracts with the firms' equity holders. Equity holders own the firm in the sense that they have residual cash flow rights: After all stakeholders are paid according to their contracts, equity holders are entitled to the residual profits (Alchian and Demsetz, 1972; Jensen and Meckling, 1976). Inspired by the nexus-of-contracts view of the firm, leading strategy consulting firms teach their staff and clients to focus on value creation for equity holders. Similarly, textbooks on valuation and corporate finance usually assume that managers should aim at maximizing the market value of shareholders' equity. The reason for focusing on shareholder value alone is the presumption that other stakeholders are well protected by contracts. For example, debt holders have financial claims with priority, employees are protected by labor contracts, and regulation and taxes protect and compensate society. Shareholders are the residual claimants; they get whatever is left after the

firm pays taxes, wages, and interest. Such a view is only partially correct, considering the fact that, in the real world, contracts are incomplete. Contractual incompleteness and other market imperfections can explain why other stakeholders may also be residual claimants. However, in practice most of these subtleties are ignored and firms are assumed to be fully owned by shareholders. This view is also the dominant one in the strategy literature. Firm Scope and the Transaction-Cost View of the Firm Coase (1937) initiated the tradition of viewing firms and markets as substitutes. To understand what that means, consider a specific transaction such as the supply of an input that is used in the production of a final good. The classic example in this literature is the case of Fisher Body, a supplier of car bodies to General Motors (GM) in the 1920s. The key issue here is the “make or buy” decision or the vertical integration problem: Should GM produce its own car bodies in-house or should P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton CORPORATE STRATEGY AND INVESTMENT DECISIONS 27 it outsource production, buying bodies from an independent supplier (such as Fisher)? If a transaction is conducted through the market, contracts will regulate the conditions of the deal (e.g., price, product characteristics, delivery dates, and guarantees). If a transaction is conducted within a single firm, the conditions of the deal will be regulated through management. The market can thus be seen as a system of coordination by prices (or contracts), while the firm can be seen as a system of coordination by management. The transaction-cost view assumes that the most efficient mode of coordinating a transaction will usually be chosen. Thus, firms are chosen over markets when the former implies lower transaction costs than the latter (and vice versa). More generally, the transaction-cost view is a theory of firm scope (or firm boundaries): It aims to determine what the firm should and should not do. The determination of firm scope is an important strategic consideration. In practice, companies are continuously redefining their boundaries, mainly through mergers, acquisitions, divestitures, and spin-offs. A key concept in the transaction-cost view of the firm is that of asset specificity (e.g., Williamson, 1985). When two parties meet each other and decide to write an incomplete long-term contract, the nature of their relationship changes in fundamental ways. Both parties may undertake investments that are specific to their relationship. For example, GM could design its cars to fit car bodies built by Fisher, while Fisher could modify its machines to create car bodies that fit GM’s demands. Thus, after relationship-specific investments are made, the value of GM and Fisher’s assets is higher inside the relationship than it is outside. That is, asset specificity creates a surplus, which is the difference between the value of assets inside and outside the relationship between the contracting parties. If the two parties are not integrated in a single firm, they will have to bargain with each other over the division of the surplus after relationship-specific investments are made. This bargaining can be very costly. Furthermore, the possibility exists that no agreement is reached, which implies that the surplus might go to waste. To avoid such transaction costs, the theory predicts that the parties should be integrated in a single firm in those cases in which relationship-specific assets are important. The Resource-Based View of the Firm What is collectively known as the resource-based view of the firm is a set of different ideas that have been developed by various scholars. Wernerfelt (1984) is normally credited with introducing what is currently known as the resource-based view; the main idea, however, dates back to Penrose (1959). Wernerfelt distinguishes between the traditional product-based view of the firm, which looks at the firm from the perspective of the portfolio of products it sells, and the resource-based view, which looks at the firm from the perspective of the set of resources it owns. Resources are unique assets that can be strengths or weaknesses. This view is particularly useful for understanding corporate strategy, as it provides a potential rationale for product-market diversification. A firm that operates in multiple, seemingly distinct product markets may be exploiting synergies created by the unique resources that it owns. These resources may create competitive advantages in different product markets. Thus, to look for synergies by analyzing P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton 28 Capital Budgeting Valuation the degree of similarity among products can be misleading if the main source of economic value created by

conglomerates is their ownership of unique resources. Some resources can be leveraged across different markets and thus create a competitive advantage in more than one product market.

Commitment versus Adaptation Two important issues in the resource-based tradition are the nature of unique resources and the relative importance of commitment versus adaptation. The first issue concerns the question of whether human or nonhuman resources are the most important sources of sustainable competitive advantage. In principle, valuable unique resources can be tangible and tradable, such as physical assets; intangible and tradable, such as intellectual property; or intangible and nontradable, such as corporate culture. Because theory offers little guidance, the question about the relative importance of each type of resource must be settled empirically. The second issue, the tension between commitment and adaptation, is more open to theoretical analysis. The strategy literature that emphasizes first-mover advantages holds a rather positive view of the commitment effect associated with irreversible investment decisions (e.g., Ghemawat, 1991). Firm-specific resources are investments that are difficult to reverse and may provide a source of competitive advantage. Irreversible investments create credible barriers to entry and are thus valuable. Thus, viewed under this light, the commitment provided by investing in firm-specific resources seems to be a more reliable source of competitive advantage than the flexibility associated with less specialized resources. As a simple example of the value of commitment, consider the adoption of most-favored-customer contractual clauses (which here can be understood as a form of irreversible investment). Such clauses, which offer a buyer the best possible price that is given to any of a firm's customers, may a priori seem to increase buyer power and thus reduce profits. However, understanding such clauses involves taking the value of commitment into account. By binding itself to such a contractual clause, the supplier firm commits to be a tough negotiator with all customers, as any discount to one buyer must also be offered to all other buyers. By increasing the cost of making price concessions, a seller may actually improve her bargaining position and capture a larger share of industry profits. Without totally discrediting the importance of commitment and strategic continuity, some scholars believe that strategic flexibility and the ability to adapt are at the core of strategy. For example, Montgomery (2008) argues against a static view of strategy. According to her, a firm's strategy is in constant motion, evolving not only in big steps but also in mostly smaller ones. A static view of strategy is dangerous as it may lead corporate leaders to try to defend their perceived competitive advantages long after they stopped being profitable. Montgomery sees the main goal of strategy as the search for a corporate identity, or what the company "wants to be." More concretely, she uses Brandenburger and Stuart's (1996) notion of added value to give a more precise meaning to this corporate soul-searching exercise. The company must be something distinctive in the sense that someone would miss it if the company disappeared. In Montgomery's (2008) view, leadership is one of the crucial resources that a company has. The author sees the CEO as the steward of the company, responsible for continuously adapting to change and redefining the company's strategy.

She P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton CORPORATE STRATEGY AND INVESTMENT DECISIONS 29 argues that leadership requires a continuous reassessment of strategy as well as frequent changes and reformulation. The relative importance of commitment versus flexibility in corporate strategy is still an unsettled issue, just as are many other questions reviewed in this chapter. Ultimately, empirical evidence is necessary to provide further insights on the practical aspects of corporate strategy.

CORPORATE STRATEGY, INVESTMENT, AND PERFORMANCE: SOME EVIDENCE With few exceptions, the empirical literature on corporate investment and performance has evolved independently from most of the theoretical work in corporate strategy. Thus, the link between theory and evidence is still tenuous. This section provides a selective review of some studies that focus on questions related to corporate strategy, investment, and performance. As strategy influences all corporate decisions, virtually all studies of businesses are somehow related to strategy. The few examples discussed here highlight the importance of strategic considerations for corporate investment decisions. The Evolution of Firms Recent work by Kaplan, Sensoy, and Stromberg (2009)

provides evidence that is related to many of the topics discussed in this chapter. They analyze the evolution of 50 (mostly high technology) firms from their birth to almost maturity. Their sample consists of entrepreneurial firms that were initially backed by venture capitalists and eventually became publicly traded companies. The authors of this study follow their sample firms through three different stages: (1) the business plan stage (not long after the firm is founded—on average 23 months old); (2) the initial public offering (IPO) stage (on average 34 months after the business plan); and (3) the public company stage (for which they take data from annual reports on average 34 months after the IPO). Kaplan et al. (2009) report the following findings: Firm scope is important: Almost all firms keep the same core businesses or business ideas throughout these three stages. Firms tend to grow around these initial ideas, rather than by replacing them with new ones. Resource uniqueness is key: Almost all managers in their sample believe that the importance of a unique resource remains high during all three stages. The relative importance of expertise declines over time: Firms claim that the importance of the expertise of their managers and workers is high during the business plan stage, but it becomes less so after the company goes public. Human capital changes rapidly: Only 72 percent of the CEOs at the IPO were CEOs at the business plan; this number falls to only 42 percent at the public company stage. Founders leave the firm frequently, often relinquishing control at the IPO stage or soon afterward. Nonhuman assets are key: Proprietary intellectual property, patents, and physical assets remain important throughout the firm's life. P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton 30 Capital Budgeting Valuation Kaplan et al. (2009) conclude that, more often than not, firms distinguish themselves by their critical nonhuman resources, rather than by the entrepreneurial talent of few individuals. Thus, investments in those critical nonhuman assets are the main sources of value. Their evidence provides broad support for the resourcebased view of the firm. The evidence is also relevant for the debate on the relative merits of commitment versus adaptation. At least in their sample, leadership and ability to adapt seem less important than commitment to a business model. Guedj and Scharfstein (2004) study the investment behavior of biopharmaceutical firms in drug development projects. They find that small, early-stage companies are reluctant to drop the development of unsuccessful new drugs. Large and mature companies in the industry are more efficient in their project termination decisions and thus enjoy better performance. Their evidence shows that firms' investment behavior varies over the stages of their own life cycle. Their results suggest that, unlike mature firms, new firms are more willing to take risks and to hold on to losers. Investment in Conglomerates and the Diversification Discount Financial economists first became interested in corporate strategy when they (implicitly) applied the added value principle to a large sample of diversified companies. Lang and Stulz (1994) and Berger and Ofek (1995) conduct the following experiment involving a conglomerate, which is a corporation that operates in many different industries. They construct a portfolio of stand-alone companies closely resembling industries in the conglomerate. That is, the stand-alone portfolio is a comparable for the conglomerate. Now, if the conglomerate did not exist, shareholders who currently invest in it could obtain similar risk exposures by investing in the stand-alone portfolio instead. Thus, would any value be lost if the conglomerate did not exist? That is the added value question. The authors compare the market value of diversified companies (scaled by their book values) to a portfolio of standalone companies. Perhaps surprisingly, they find that, on average, conglomerates display negative added values. This finding is known as the diversification discount in the corporate finance literature. The diversification discount is the most controversial finding in the academic literature linking corporate strategy and investment decisions. There are many explanations for this finding, ranging from data issues to misclassifications, statistical problems, spurious correlations, and reverse causality. Maksimovic and Phillips (2007) provide a summary of the literature. Regardless of whether most conglomerates have negative added values, considering that possibility is important. What does it mean? A negative added value means that a conglomerate is pursuing a corporate strategy that destroys value. The optimal strategy in such a case would be to either shut down or spin off all divisions but one. Why would conglomeration

destroy value? The most widely suggested explanation is that conglomerates have inefficient internal capital markets (Scharfstein and Stein, 2000). Due to corporate politics, funds for investments are allocated across divisions for reasons that are not fully related to the quality of their investment opportunities. According to this view, the diversification discount is a symptom of bad investment decisions in conglomerates. Motivated by this idea, various papers try to test empirically for the efficiency of investment decisions in P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton CORPORATE STRATEGY AND INVESTMENT DECISIONS 31 conglomerates. The evidence is mixed (Maksimovic and Phillips, 2002; Dittmar and Shivdasani, 2003; Ahn and Denis, 2004). Although corporate politics is certainly a problem in many large and diversified companies, there is insufficient convincing, large-sample evidence that such a problem can explain the diversification discount. The conglomerate investment literature contains other relevant findings. Perhaps the most important one concerns the mode of investment. Maksimovic and Phillips (2008) find that conglomerate divisions invest more via acquisitions relative to capital expenditures than similar stand-alone companies. This evidence has important implications for investment decisions in large corporations. For example, one of the most important tasks of division managers is to identify and value suitable targets. In contrast, managers in stand-alone companies need to worry more about organic growth and must possess skills in valuing and implementing greenfield investments, which are investment in a manufacturing, office, or other physical company-related structure or group of structures in an area where no previous facilities exist. Growth through Acquisitions A key question in corporate strategy is: How can firms create value by redefining firm boundaries? Any reasonable answer must mention the creation of a unique resource. In M&As, the value created by such unique resources is loosely referred to as synergy. Business people are often believed to be overly optimistic about the prospect of synergies. Porter (2008, p. 154) offers a skeptical view: "If you believe the text of the countless corporate annual reports, just about anything is related to just about anything else! But imagined synergy is much more common than real synergy." However, the academic research on the stock return effects of deal announcements shows that M&A deals create shareholder value on average, although there is considerable variation (Andrade, Mitchell, and Stafford, 2001). The key puzzle raised by the M&A literature is not related to value creation but to value capture: Acquirer returns are on average negative, while target returns are positive and large. Acquirers appear to overpay for their targets. Thus, even if acquirers competently identify and value potential synergies, the evidence suggest that they do not do as well when dividing the gains. Notwithstanding the problem of the division of gains, the task of identifying synergies is still very important. This task requires much strategic knowledge. Consider, for example, the case of Cisco's acquisition strategy. Cisco's Internet Operating System (IOS) is a platform that became dominant in the 1990s. Dominant platforms are unique in that they are more valuable to customers exactly because they are dominant. This is the essence of network effects; ownership of a platform is a competitive advantage only insofar as a large number of customers choose to adopt the platform. Thus, Cisco's success relies on its platform being dominant. By understanding the source of its competitive advantage, Cisco's investment policy is centered at acquiring new companies developing systems that may threaten IOS's dominance. An example was its acquisition of StrataCom in 1996, a small start-up that was the developer of a cheap and efficient transmission system, the ATM (asynchronous transmission mode). Because ATM and IOS were not initially compatible, the spread of ATM in the market was a threat to the dominance of IOS. P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton 32 Capital Budgeting Valuation After a few attempts to coordinate the two companies without integration, Cisco chose to acquire StrataCom. The stock market viewed that decision favorably, as evidenced by Cisco's share price increasing by 10 percent on the day of the announcement. This description follows Hart and Holmstrom (2010). This example illustrates the importance of a broad understanding of corporate strategy for making sense of a company's investment policy. Understanding why the company creates value for shareholders helps in

assessing the types of investment that it needs to undertake. Cisco knew that preserving IOS was its most important goal. An aggressive acquisition policy toward potential competitors and producers of complementary systems was then paramount. Ignoring the importance of network effects and coordination among systems would have led Cisco to undervalue such acquisitions and thus fail to create value for shareholders.

Interactions between Financing and Investment Decisions Because firms are usually financially constrained, they must coordinate their investment strategies with their financing policies. The synchronization of investment opportunities and access to funds for investment is the key goal of modern corporate risk management (Froot, Scharfstein, and Stein, 1993). This fact implies that corporate liquidity has strategic value. Consequently, investment decisions must take into account a project's potential for generating cash flows in those states in which liquidity is most needed. Even when firms are not currently financially constrained, they may prefer to invest in projects that generate cash flows exactly when firms are likely to be financially constrained (Almeida, Campello, and Weisbach, 2010). Financing decisions may also have direct effects on investments due to contractual arrangements. Evidence suggests that as creditors gain more control rights after debt covenant violations, corporate investment falls (Chava and Roberts, 2008). Thus, the financing mix between debt and equity may also have direct consequences for investment decisions. Campello (2006) finds that moderate levels of debt lead to superior sales growth; this growth occurs by gaining market share at the expense of industry rivals. However, he also finds that excessive debt leads to underperformance. Fresard (2010) finds that cash-rich companies gain market share at the expense of their rivals. He argues that the evidence is consistent with the "deep pocket" effect: Financially strong firms overinvest in capacity and adopt aggressive competitive strategies to drive financially weak companies out of the market (Telser, 1966; Bolton and Scharfstein, 1990). Zingales (1998) analyzes the interactions between industry competition and financial slack by studying the effects of deregulation in the trucking industry on the survival of firms. He finds that the increase in competition caused by deregulation forced highly levered firms to exit the industry. Zingales shows that both the most efficient firms (the "fittest") and the ones with more financial slack (the "fattest") were more likely to survive in the long run. The author also finds that, after deregulation, highly levered firms invest less than their competitors, suggesting that high leverage hinders the ability of firms to invest when competition is tough. Further, his evidence shows that the underinvestment problem P1: OTA/XYZ P2: ABC JWBT466-c02 JWBT466-Baker January 31, 2011 20:14 Printer Name: Hamilton CORPORATE STRATEGY AND INVESTMENT DECISIONS 33 associated with high levels of debt is partially responsible for these firms exiting the market. The evidence discussed in this section shows that a firm's competitive strategy cannot be dissociated from its financial decisions, and its financial and investment decisions are embedded in the competitive landscape. When rivalry among competitors is weak and barriers to entry are high, firms may choose to invest heavily via debt financing. However, when competition is fierce and barriers to entry are low, financial slack is important, so investment decisions that require debt financing and deliver cash flows only in the distant future leave the company exposed to predatory strategies by rivals.

UNIT III

INTRODUCTION TO CORPORATE RESTRUCTURING LEARNING OBJECTIVES

After reading this lesson, you should be able to, give the meaning of corporate restructuring. List out the reasons for corporate restructuring. Discuss the different forms or types of corporate restructuring. Understand the terms used in corporate restructuring. Understand the major categories of corporate restructuring.

STRUCTURE OF THE UNIT

3.1.1. Introduction to Corporate Restructuring 3.1.2. Meaning of Corporate Restructuring 3.1.3. Reasons for Corporate Restructuring 3.1.4. Types / Forms of Corporate Restructuring 3.1.5. Major Categories of Corporate Restructuring Before knowing the meaning and forms of corporate restructuring it is better to know the different forms of business organisation and how an entrepreneur structures his/her organisation.

Entrepreneur who is planning to start an organisation either for manufacturing products or providing services need to select the right form of business organisation. This is possible for those entrepreneurs who are having knowledge about the advantages and disadvantages of different forms of business organisations. There are four main forms of business organisations, viz., sole proprietorship, partnership, cooperative society, and company (public and private). Each of this form has its own advantages and disadvantages. At the same time entrepreneur also determines the financial structure also. But the same form of business organisation and financial structure may not be suitable for changing business environment. Therefore, there is a need to restructure their corporation.

3.1.1 INTRODUCTION TO CORPORATE RESTRUCTURING

It is very difficult for any firm to survive without restructuring the firm in the growing stages. It may be possible to run a firm successfully for a short period, but in the long run it may not be possible without restructuring because business environment changes. Scanning of business environment helps in identifying business opportunities and threats. Corporate restructuring is necessary whenever there is change in business environment. For example, with Liberalization, Privatization, and Globalisation (LPG) many firms felt that there are lots of profitable investment opportunities, and it also means increasing competition. A firm that feels globalisation is opportunity for the firm, then it need to leverage the benefits, which require lot of funds and resources, and also need to go for restructuring. On the other hand a firm that feels globalisation or liberalization or privatization is as competition, it has to compete with the new competitors, by manufacturing products at high quality and sell at reasonable prices, but it needs more technological support and needs more funds. So firm need to go for restructuring. Today, restructuring is the latest buzzword in corporate circles. Companies are vying with each other in search of excellence and competitive edge, experimenting with various tools and ideas. Many firms try to turn the business around by cutting jobs, buying companies, selling off or closing unprofitable divisions or even splitting the company up. And the changing national and international environment is radically changing the way business is conducted. Moreover, with the pace of change so great, corporate restructuring assumes paramount importance. It is because profitable growth is one of the objectives of any business firm. Maximization of profit is possible either by internally, by change of manufacturing process, development of new products, or by expanding the existing products. On the other hand company would be able to maximize profit by externally merging with other firm or acquiring another firm. The external strategy of

maximizing profit may be in the form of mergers, acquisitions, amalgamations, takeovers, absorption, consolidation, and so on. Put in simple words the concept of restructuring involves embracing new ways of running an organization and abandoning the old ones. It requires organisations to constantly reconsider their organisational design and structure, organisational systems and procedures, formal statements on organisational philosophy and may also include values, leader norms and reaction to critical incidences, criteria for rewarding, recruitment, selection, promotion and transfer.

3.1.2 MEANING OF CORPORATE RESTRUCTURING

Restructuring is the corporate management term for the act of partially dismantling and reorganizing a company for the purpose of making it more efficient and therefore more profitable. It generally involves selling off portions of the company and making severe staff reductions. Restructuring is often done as part of a bankruptcy or of a takeover by another firm, particularly a leveraged buyout by a private equity firm. It may also be done by a new CEO hired specifically to make the difficult and controversial decisions required to save or reposition the company. It indicates to a broad array of activities that expand or contract a firm's operations or substantially modify its financial structure or bring about a significant change in its organisational structure and internal functioning. It includes activities such as mergers, buyouts, takeovers, business alliances, slump sales, demergers, equity carve outs, going private, leverage buyouts (LBOs), organisational restructuring, and performance improvement initiatives.

3.1.3 REASONS FOR CORPORATE RESTRUCTURING

There are a good number of reasons behind corporate restructuring. Corporate restructure their firms with a view to:

- 1 Induce higher earnings
- 2 Leverage core competencies
- 3 Divestiture and make business alliances
- 4 Ensure clarity in vision, strategy and structure
- 5 Provide proactive leadership
- 6 Empowerment of employees, and
- 7 Reengineering Process

1. Induce Higher Earnings: The prime goal of financial management is to maximize profit there by firm's value. Firm may not be able to generate constant profits throughout its life. When there is change in business environment, and there is no change in firm's strategies. The two basic goals of corporate restructuring may include higher earnings and the creation of corporate value. Creation of corporate value largely depends on the firm's ability to generate enough cash. Thus corporate restructuring helps to firms to increase their profits.

2. Leverage Core Competence: Core competence was seen as a capability or skill running through a firm's business that once identified, nurtured, and developed throughout the firm became the basis for lasting competitive advantage. For example Dell Computer built its first 10-year of unprecedented growth by creating an organisation capable of the speedy and in expensive manufacture and delivery of custom-built PCs. With the concept of organisational learning gaining momentum, companies are laying more emphasis on exploiting the rise on the learning curve. This can happen only when companies focus on their core competencies. This is seen as the best way to provide shareholders with increased profits.

3. **Divestiture and Business Alliances:** Some times companies may not be able to run all the companies, which are there in-group, and companies which are not contributing may need to be divested and concentrate on core competitive business. Companies, while keeping in view their core competencies, should exit from peripherals. This can be realised through entering into joint ventures, strategic alliances and agreements.
4. **Ensure Clarity in Vision, Strategy and Structure:** Corporate restructuring should focus on vision, strategy and structure. Companies should be very clear about their goals and the heights that they plan to scale. A major emphasis should also be made on issues concerning the time frame and the means that influence their success.
5. **Provide Proactive Leadership:** Management style greatly influences the restructuring process. All successful companies have clearly displayed leadership styles in which managers relate on a one-to-one basis with their employees.
6. **Empowerment of Employees:** Empowerment is a major constituent of any restructuring process. Delegation and decentralised decision making provides companies with effective management information system.
7. **Reengineering Process:** Success in a restructuring process is only possible through improving various processes and aligning resources of the company. Redesigning a business process should be the highest priority in a corporate restructuring exercise. The above discussed are the prime reasons for corporate restructuring.

3.1.4 TYPES / FORMS OF CORPORATE RESTRUCTURING

Business firms engage in a wide range of restructuring activities that include expansion, diversification, collaboration, spinning off, hiving off, mergers and acquisitions. Privatisation also forms an important part of the restructuring process.

The different forms of restructuring may include:

(1) Expansion, (2). Mergers (Amalgamation), (3) Purchasing of a Unit or Division or Plant, (4) Takeover, (5) Business Alliances, (6) Sell-Off, (7) Hive-Off, (8) Demerger or Corporate Splits or Division, (9) Equity Carveout, (10) Going Private, and (11) Leveraged Buyout (LBO)

1. **Expansion:** It is the most common and convenient form of restructuring, which involves only increasing the existing level of capacity and it does not involve any technical expertise. Expansion of business needs more funds to be raised either in the form of equity or debt or both and the funds are used to finance the fixed assets required for manufacturing the expanded level of production. This increase firm's profitability, thereby value of the firm.

2. **Merger:** The term merger refers to a combination of two or more companies into a single company where one survives and the others lose their corporate existence. The acquired company (survivor) acquires the assets as well as liabilities of the merged company or companies. For example A Ltd., acquires the business of B Ltd. and C Ltd. The Generally, the company, which survives, is the buyer, which retains its identity, and the seller company is extinguished. Merger is also defined as amalgamation. Merger is the fusion of two or more existing companies. All assets, liabilities and stock of one company stand transferred to Transferee Company in consideration of payment in the form of equity shares of Transferee Company or debentures or cash or a mix of the two or three modes. Mergers per se, may either be horizontal mergers, vertical mergers or conglomerate mergers. In a tender offer, the acquiring firm seeks controlling interest in the firm to be acquired and requests the shareholders of the firm

to be acquired, to tender their shares or stock to it. Amalgamation: Ordinarily amalgamation means merger. Amalgamation refers to a situation where two or more existing companies are combined into a new company formed for the purpose. The old companies cease to exist and their shareholders are paid by the new company in cash or in its shares or debentures or combination of cash, shares, and debentures. Almost the same definition is give by Halsbury's Laws of England describe amalgamation as a blending of two or more existing undertakings into one undertaking, the shareholders of each blending company becoming substantially the shareholders in the company, which is to carry on the blended undertaking. But there is technical difference between merger and amalgamation. In case of merger, one existing company takes over the business of another existing company or companies, while in the case of amalgamation; a new company takes over the business of two or more existing companies. The company or companies merging are called amalgamating company or companies and the company with which the amalgamating merge or the company, which is formed as a result of the merger, is called amalgamated company. For example C Ltd., is formed to take over A Ltd. and B Ltd. However, in practice, no such distinction is observed. As a matter of fact the term amalgamation includes merger also. In the case Andhra Pradesh High Court held in S.S Somayajulu v Hope Prudhomme& Co. Ltd., the word —amalgamationl has no definite legal meaning. It contemplates a state of things under which two companies are so joined as to form a third entity, or one company is absorbed into and blended with another company. Amalgamation does not involve a formation of a new company to carry on the business of the old company.

3.Purchasing of a Unit: Purchasing a unit or plant or division is becoming common practice in corporate restructuring activity. This is because purchasing a unit reduces the time involved in setting up of new unit, which is generally a lengthy period and also brings some tax benefits. When a firm purchases one unit of the other firm then it becomes to divesture for the selling firm. For example when Hindustan Co. purchases a unit of Bharath Co. from Bharath company point of view it is divesture. Generally firms sell a unit or plant or division, due to no performance, or low performance. At the same time the low or no performance reduces the profits of consolidated results of the firm.

4.Takeover: A takeover is acquisition and both the terms are used interchangeably. Takeover differs from merger in approach to business combinations i.e. the process of takeover, transaction involved in takeover, determination of the share exchange or cash price and fulfillment of goals of combination all are different in takeovers than in mergers. For example, process of takeover is unilateral and the offeror company decides about the maximum price. Time taken in completion of transaction is less in takeover than in mergers, top management of the offeree company being more co-operative.

5.Business Alliances: The following are more commonly used forms of business alliance: Joint Ventures Occasionally two or more capable firms lack a necessary component for success in a particular competitive environment. For example, no single petroleum firm controlled sufficient resources to construct the Alaskan pipeline. Nor was any single firm capable of processing and marketing all of the oil that would flow through the pipeline. The solution was joint ventures. A joint venture is set up an independent legal entity in, which two or more separate firms participate. The joint venture agreement clearly indicates how the cooperating members will share ownership, operational responsibilities, and financial risks and rewards. Example of JV Fuji-Xerox, JV to produce photocopiers, for the Japanese market. Strategic Alliances A strategic

alliance is cooperative relationship like JV, but it does not create a separate legal entity. In other words companies involved do not take an equity position in one another. In many instances, strategic alliances are partnerships that exist for a defined period during which partners contribute their skills (transfer technology, or provide R&D service, or grant marketing rights etc.) and expertise to a cooperative project. For example, service and franchise based firms like Coca-Cola, McDonald's and Pepsi have long engaged in licensing arrangements with foreign distributors as a way to enter new markets. Franchising A special form of licensing is franchising, which allows the franchisee to sell a highly publicised product or service, using the parent's brand name or trademark, carefully developed procedures, and marketing strategies. In exchange, a franchisee pays a fee to parent firm, typically based on the volume of sales of the franchisor in its defined market area. Most attractive franchisees are Coca-Cola, Kentucky Fried Chicken, Pepsi. Licensing / Contract Manufacturing License is an agreement whereby a foreign licensee buys the right to produce a company's product in the licensee's country for a negotiated fee (normally, royalty payments on the sales volume). There are two popular types of licensing. First type involves granting license for product, or process, or specific technology, the second type of licensing involves granting licensing for trademark or copyright. RCA for instance, once licensed its color television technology to a number of Japanese companies.

6. Sell-Off: Sell-Off may be either through a spin-off or divestiture. Spin-Off creates a new entity with shares being distributed on a pro rata basis to existing shareholders of the parent company. Split-Off is a variation of Sell-Off. Divestiture involves sale of a portion of a firm/company to a third party.

7. Hive-Off: It refers to the sale of loss making division or product or product line, by a company. Put it simple it is discontinuing manufacture of a product or closing down a division. This is beneficial for both the buyer and the seller. Saving the acquisition cost of acquiring an established product benefits the buyer. On the other hand concentrating more on profitable segments or products and consolidating its business benefit seller. The recent example is hiving off Tata Chemicals share in Excel Industries.

8. Demerger or Corporate Splits or Division: Demerger or split or division of a company are the synonymous terms signifying a movement in the company just opposite to combination in any of the forms defined above. Such types of demergers or divisions have been occurring in developed nations particularly in UK and USA. In UK, the above terms carry the meaning as a division of a company takes place when part of its undertaking is transferred to a newly-formed company or to an existing company, some or all of whose shares are allotted to certain of the first company's shareholders. The remainder of the first company's undertaking continues to be vested in it and its shareholders are reduced to those who do not take shares in the other company; in other words, the company's undertaking and shareholders are divided between the two companies. In USA, too, the corporate splits carry the similar features excepting difference in accounting treatment in post-demerger practices. In India, too, demergers and corporate splits have started taking place in old industrial conglomerates and big groups.

9. Equity Carveout: Equity carveout is the sale of its equity by parent company in a wholly owned subsidiary. The sale of equity may be to the general public or strategic investors. Equity carve out differs from spin off in two ways. First, in equity carveout the equity shares are sold to the new investor, whereas in the spinoff the equity shares are sold to the existing shareholders. Secondly, equity carveout brings cash to the firm (since the shares are sold to the new investor),

whereas in the spin off there is no cash infusion to the company because the shares value is broken into small and the same are distributed to the existing shareholders. For example, A company has 10,000 equity shares each Rs.10 face value. The company is planning to spin off the shares, by dividing the face value into two equal values. In this case firm divides share into two with face value of Rs.5 per share and the same is distributed to the existing shareholders. Here the number of shares increases to 20,000, but face value of the share is Rs.5. 10. Going Private: Ownership of a company can be changed through an exchange offer, share repurchase or going public. Therefore, going private is one of the ways of ownership restructuring. Generally public company stock is held with public. Going private means converting public company into private company. Privatisation is done through buying shares from the public, which increases the stake of a small group of investors, who have substantial stake. The rationale behind privation is to the costs (cost of providing investors with periodical reports, communicating with financial analysts, holding shareholders meetings, fulfilling various statutory obligations, etc.) associated with public limited company form of organisation and to bring long-term value into sharper focus. Castrol India and Philips India are the recent examples of going private. 11. Leveraged Buyout (LBO): Leveraged buyout means buying any thing with borrowed funds. For example, Dream Well Co., interested in divesting one of its division, for Rs.50 crores (whose value is Rs.80 crores). Five executives of the same division are keen on buying the division but each executive is able to contribute Rs.10 lakhs. Here they fall short of funds to buy the division, still they want to buy the same with a borrowings Rs.30 lakhs from a bank. It is known as leveraged buyout. 12. Other Terms Used in Corporate Restructuring: Apart from the above discussed form of corporate restructuring the following are other terms used: Acquisition, consolidation, absorption, combinations, holding company, takeover, restructuring, reconstructing and diversification. The terms are required to be understood in the sense these are used. In different circumstances some of these terms carry different meanings and might not be construed as mergers or takeover in application of the sense underlying the term for a particular situation. In the following paragraphs, the meaning of these terms have been explained in the light of the definitions and explanations given by eminent scholars and practitioners in their works.

Acquisition:

Acquisition in general sense is acquiring the ownership in the property. In the context of business combinations, an acquisition is the purchase of by one company of a controlling interest in the share capital of another existing company. An acquisition may be affected by

- (a) agreement with the persons holding majority interest in the company management like members of the board or major shareholders commanding majority of voting power;
- (b) purchase of shares in open market;
- (c) to make takeover offer to the general body of shareholders;
- (d) purchase of new shares by private treaty;
- (e) acquisition of share capital of one company may be by either all or any one of the following form of considerations viz. means of cash, issuance of loan capital, or insurance of share capital.

i. Consolidation: Consolidation is known as the fusion of two existing companies into a new company in which both the existing companies extinguish. Thus, consolidation is mixing up of the two companies to make them into a new one in which both the existing companies lose their identity and cease to exist. The mix-up assets of the two companies are known by a new name

and the shareholders of two companies become the shareholders of the new company. None of the consolidating firms legally survives. There is no designation of buyer and seller. All consolidating companies are dissolved. In other words, all the assets, liabilities and stocks of the consolidating companies stand transferred to new company in consideration of payment in terms of equity shares or bonds or cash or combination of the two or all modes of payments in proper mix.

ii. Absorption: Absorption is a combination of two or more firms into an existing corporation. All firms except one lose their identity in merger through *absorption*. For example this type of absorption is absorption of Tata Fertilisers Ltd. (TFL) by Tata Chemicals Ltd. (TCL). TCL, an acquiring firm. Survived after merger, while TFL an acquired company, ceased to exist.

iii. Combination: Combination refers to mergers and consolidations as a common term used interchangeably but carrying legally distinct interpretation. All mergers, acquisitions, and amalgamations are business combinations.

v. Take-over: A takeover or acquisition and both the terms are used interchangeably. Takeover differs from merger in approach to business combinations i.e. the process of takeover, transaction involved in takeover, determination of the share exchange or cash price and fulfillment of goals of combination all are different in takeovers than in mergers. For example, process of takeover is unilateral and the offeror company decides about the maximum price. Time taken in completion of transaction is less in takeover than in mergers, top management of the offeree company being more cooperative.

vi. Reconstruction: The term reconstruction has been used in section 394 along with the term amalgamation. The term has not been defined therein but it has been used in the sense not synonymous with amalgamation. In the Butter worth publication, the term has been explained as under: By a reconstruction, a company transfers its undertaking and assets to a new company in consideration if the issue of the new company's shares to the first company's members and, if the first company's debentures are not paid off, in further consideration of the new company issuing shares or debentures to the first company's debentures holders in satisfaction of their claims. The result of the transaction is that the new company has the same assets and members and, if the new company issues debentures to the first company's debenture holders, the same debenture holders as the first company, the first company has no undertaking to operate and is usually wound up or dissolved. Reconstructions were far common at the end of the last century and the beginning of this century than they are now. The purposes to be achieved by them were usually one of the following: either to extend or alter of a company by incorporating a new company with the wider or different objects desired; or to alter the rights attached to the different classes of a company's shares or debentures by the new company issuing shares or debentures with those different rights to the original company's share or debenture holders; or to compel the members of a company to contribute further capital by taking shares in the new company on which a larger amount was unpaid than on the shares of the original company. The first two of these purposes can now be achieved without reconstruction and the third is now regarded as a species of coercion, which is strongly disapproved of by the courts and is not pursued in practice. Consequently, reconstructions for these reasons do not now occur. In Indian context, the term would cover various types of arrangements or comprises which may include merger as well as demerger.

vii. Restructuring: Restructuring is the corporate management term for the act of partially dismantling and reorganizing a company for the purpose of making it more efficient and therefore more profitable. It generally involves selling off portions of the company and making severe staff reductions. Restructuring is often done as part of a bankruptcy or of a takeover by another firm, particularly a leveraged buyout by a private equity firm. It may also be done by a new CEO hired specifically to make the difficult and controversial decisions required to save or reposition the company. It indicates to a broad array of activities that expand or contract a firm's operations or substantially modify its financial structure or bring about a significant change in its organisational structure and internal functioning. It includes activities such as mergers, buyouts, takeovers, business alliances, slump sales, demergers, equity carve outs, going private, leverage buyouts (LBOs), organisational restructuring, and performance improvement initiatives.

viii. Diversification: Diversification is the process of adding new business to the company that is distinct its established operations. A diversified or multi-business company is thus one that is involved in two or more distinct industries. Firms go for diversification for reducing non-systematic risk. Diversification implies growth through the combination of firms in unrelated business. Such mergers are called conglomerate mergers.

3.1.5 MAJOR CATEGORIES OF CORPORATE RESTRUCTURING

As we read in the above that corporate restructuring entails any fundamental change in a company's business or financial structure, designed to increase the company's value to shareholders or creditor.

Corporate restructuring is often divided into two parts:

1. Operational restructuring, and
2. Financial restructuring.

1. Operational Restructuring: Operational restructuring is the process of increasing the economic viability of the underlying business model. Examples include mergers, the sale of divisions or abandonment of product lines, or costcutting measures such as closing down unprofitable facilities. In most turnarounds and bankruptcy situations, both financial and operational restructuring must occur simultaneously to save the business.

2. Financial Restructuring: It relates to improvements in the capital structure of the firm. Corporate financial restructuring involves restructuring the assets and liabilities of corporations, including their debt-to-equity structures, in line with their cash flow needs to promote efficiency, support growth, and maximize the value to shareholders, creditors and other stakeholders. Otherwise viable firms under stress it may mean debt rescheduling or equity-for-debt swaps based on the strength of the firm. If the firm is in bankruptcy, this financial restructuring is laid out in the plan of reorganization. These objectives make it sound like restructuring is done pro-actively, that it is initiated by management or the board of directors. While that is sometimes the case examples include share buybacks and leveraged recapitalizations more often the existing structure remains in place until a crisis emerges. Then the motives are defensive as in defenses against a hostile takeover or distress-induced, where creditors threaten to enforce their rights. Financial restructuring may mean refinancing at every level of capital structure, including: a. Securing asset-based loans (accounts receivable, inventory, and equipment) b. Securing mezzanine and subordinated debt financing c. Securing institutional private placements of equity d. Achieving strategic partnering e. Identifying potential merger candidates

MERGERS AND ACQUISITIONS:

LEARNING OBJECTIVES:

After reading this lesson, you should be able to give the meaning of Mergers and Acquisition. Discuss the types of Takeovers. Trace out the evolution of Mergers and Acquisitions in India. Explain the different types or Forms of Mergers. List out and discuss the Reasons for Mergers. Discuss the benefits of Mergers. Know the motives for Mergers and Acquisitions. Understand the impact of Mergers and Acquisitions on Society. Compute the costs and Benefits of mergers. Determine the forms of Compensation. Compute Swap Ratio. Discuss the basis for determining Exchange Ratio. Know how to evaluate Merger Proposal (steps involved in mergers). · Know the tax aspects of Mergers and Amalgamations. · Know evaluation of Merger as a Capital Budgeting Decision.

STRUCTURE OF THE UNIT 3.2.1 Meaning of Mergers and Acquisition 3.2.2 Evolution Mergers and Acquisitions in India 3.2.3 Forms / types of Mergers 3.2.4 Reasons for Mergers 3.2.5 Benefits of Mergers 3.2.6 Motivators of Mergers 3.2.7 Impact of Mergers on General Public 3.2.8 Costs and Benefits of a Merger 3.2.9 Determination of Forms of Compensation (Cash vs Stock) 3.2.10 Determination of Swap (Exchange Ratio) 3.2.11 Basis for determining the Exchange Ratio 3.2.12 Evaluation of Merger Proposal 3.2.13 Steps for Merger and Amalgamation 3.2.14 Tax aspects of Mergers / Amalgamations 3.2.15 Accounting for Mergers and Acquisitions 3.2.16 Evaluation of a Merger as a Capital Budgeting Decision

A business may grow over time as the utility of its products and services is recognized. It may also grow through an inorganic process, symbolized by an instantaneous expansion in work force, customers, infrastructure resources and thereby an overall increase in the revenues and profits of the entity. Mergers and acquisitions are manifestations of an inorganic growth process. While mergers can be defined to mean unification of two players into a single entity, acquisitions are situations where one player buys out the other to combine the bought entity with itself. It may be in form of a purchase, where one business buys another or a management buys out, where the management buys the business from its owners. Mergers and acquisitions are used as instruments of momentous growth and are increasingly getting accepted by Indian businesses as critical tool of business strategy. They are widely used in a wide array of fields such as information technology, telecommunications, and business process outsourcing as well as in traditional business to gain strength, expand the customer base, cut competition or enter into a new market or product segment. Mergers and acquisitions may be undertaken to access the market through an established brand, to get a market share, to eliminate competition, to reduce tax liabilities or to acquire competence or to set off accumulated losses of one entity against the profits of other entity. Mergers and acquisitions have become a symbol of the new economic world. Almost every day one reads of a new merger or acquisition doing the rounds of the corporate circles. It also brings with it complex issues relating to laws and regulations impacting such M & A decisions. In today's business scenario, all companies are possible targets for acquisitions or mergers. As a result knowledge of the laws relating to them is extremely useful. At the same time they are critical to the health of the businesses and thereby the shareholders.

3.2.1 MEANING OF MERGERS AND ACQUISITION

The term merger refers to a combination of two or more companies into a single company where one survives and the others lose their corporate existence. The acquired company (survivor) acquires the assets as well as liabilities of the merged company or companies. For example A

Ltd. acquires the business of B Ltd. and C Ltd. The Generally, the company, which survives, is the buyer, which retains its identity, and the seller company is extinguished. Merger is also defined as amalgamation. Merger is the fusion of two or more existing companies. All assets, liabilities and stock of one company stand transferred to Transferee Company in consideration of payment in the form of equity shares of Transferee Company or debentures or cash or a mix of the two or three modes. Acquisition in general sense is acquiring the ownership in the property. In the context of business combinations, an acquisition is the purchase of by one company (called the acquiring firm) of a controlling interest in the share capital of another existing company (called the target). An acquisition may be affected by

- (a) agreement with the persons holding majority interest in the company management like members of the board or major shareholders commanding majority of voting power;
- (b) purchase of shares in open market;
- (c) to make takeover offer to the general body of shareholders;
- (d) purchase of new shares by private treaty;
- (e) acquisition of share capital of one company may be by either all or any one of the following form of considerations viz. means of cash, issuance of loan capital, or insurance of share capital.

The effort to control may be a prelude

- To a subsequent merger or
 - To establish a parent-subsidiary relationship or
 - To break-up the target firm, and dispose off its assets or
 - To take the target firm private by a small group of investors.
- Types of Takeovers There are broadly two kinds of takeover bids or strategies that can be employed in corporate acquisitions.

These include: (1) Friendly Takeover, and (2) Hostile Takeover.

1. Friendly Takeover: Friendly takeovers are those takeovers that could be through negotiations, i.e., acquiring company negotiates with the Executives or BoDs of target firm, and gets their consent for takeover. The acquiring firm makes a financial proposal to the target firm's management and board. This proposal might involve the merger of the two firms, the consolidation of two firms, or the creation of parent/subsidiary relationship. If both the parties do not reach to an agreement during negotiation process the proposal of acquisition stands terminated and dropped out.

2. Hostile Takeover: Hostile takeover is the takeover in which acquiring company may not offer to target company the proposal to acquire its undertaking but silently and unilaterally may pursue efforts to gain controlling interest in it against the wishes of the management. Put in simple, a hostile takeover may not follow a preliminary attempt at a friendly takeover. For example, it is not uncommon for an acquiring firm to embrace the target firm's management in what is colloquially called a bear hug. There are various ways in which an acquirer company may pursue the matter to acquire the controlling interest in a target firm. The various ways of acquirer are known as "raids" or "takeover raids" in the corporate world. The raids when organized in systematic ways are called "takeover bids".

3.2.2 EVOLUTION MERGERS AND ACQUISITIONS IN INDIA Compelled by the present economic scenario and market trends, corporate restructuring through mergers, amalgamations, takeovers and acquisitions, has emerged as the best form of survival and growth. The opening up

of the Indian economy and the government's decision to disinvest has made corporate restructuring more relevant today. In the last few years, India has followed the worldwide trends in consolidation amongst companies through mergers and acquisitions. Companies are being taken over, units are being hived off, joint ventures tantamount to acquisitions are being made and so on. It may be reasonably be stated that the quantum of mergers and acquisitions in the last few years must be more than the corresponding quantum in the four and a half decades post independence. Supreme Court of India in the landmark judgment of HLL-TOMCO merger has said, "in this era of hyper competitive capitalism and technological change, industrialists have realized that mergers/acquisitions are perhaps the best route to reach a size comparable to global companies so as to effectively compete with them. The harsh reality of globalisation has dawned that companies which cannot compete globally must sell out as an inevitable alternative". Economic reforms and deregulation of the Indian economy has brought in more domestic as well as international players in Indian industries. For India economic reforms and deregulations means increase in competition, which demanded structural changes of Indian industries. The main restructuring strategy in India is mergers & acquisition. The first merger and acquisition wave took place in India towards the end of 1990s. Table 1 shows the number and percentage change in the number of merger and takeover activities in India from 1988 to 2003. These mergers and takeover include the realized as well as abortive bids. Table 1 exhibit

Years	Number	Change in %
1988	15	-
1989	18	20.00
1990	25	38.90
1991	71	184.00
1992	135	90.10
1993	288	113.30
1994	363	26.00
1995	430	18.50
1996	541	25.80
1997	636	17.60
1998	730	14.80
1999	765	04.79
2000	1,177	53.86
2001	1,045	- 11.21
2002	838	- 19.81
2003	834	- 0.48

Source: Collated from various newspapers including business dailies, various issues and also Monthly Review of the Indian Economy, CMIE, various issues. a sharp rise in the overall merger and acquisition activity in the Indian corporate sector. While there were 58 mergers and takeover from 1988 to 1990, the number rose to 71 in 1991 and 730 in 1998. There was a jump in the number of merger and takeover activities in India from 1988 to 1993, the average rate of increase being around 89 per cent for the five-year period. Since then the rate of rise had maintained an average of 20.5 per cent. After 2001 year the M&A trend has shown declining. But there was substantial growth in the year 2000-01, with the total number of M&As deals 1,177, which is 54 percent higher than the previous year total deals.

3.2.3 FORMS / TYPES OF MERGERS Mergers or acquisition types depend upon the offeror company's objectives, profiles, combinations which it wants to achieve. What ever may be the technical differences between mergers, acquisitions, and amalgamations, mergers can usually distinguished into the following three types: (1) Horizontal Mergers,

(2) Vertical Mergers, and

(3) Conglomerate Mergers. 1. Horizontal Mergers: This type of merger involves when two or more competitive firms that operate and compete in a similar kind of business and same stage of industrial process. The merger is based on the assumption that it will provide economies of scale from the larger combined unit, it eliminates competition, thereby putting an end to price cutting wars, possibility of starting R&D, effective marketing and management. For example in the Aerospace industry, Boeing merged with McDonal Douglas to create the World's largest aerospace company. Another Company acquired Digital Equipment and then itself was acquired by Hewlett Packard. Glaxo Wellcome Plc. and SmithKline Beecham Plc. Mega merger. The two British pharmaceutical heavy weights Glaxo Wellcome PLC and SmithKline Beecham PLC

early this year announced plans to merge resulting in the largest drug manufacturing company globally. The merger created a company valued at \$182.4 billion and with a 7.3 per cent share of the global pharmaceutical market. The merged company expected \$1.6 billion in pretax cost savings after three years. The two companies have complementary drug portfolios, and a merger would let them pool their research and development funds and would give the merged company a bigger sales and marketing force.

2. Vertical Mergers: Vertical mergers take place between firms in different stages of production/operation, either as forward or backward integration. It occurs when a firm acquires upstream from it and or firms downstream' from it. Upstream stream merger extends to the firms supplying raw materials and to those firms that sell eventually to the customers in the event of a downstream merger. The basic reason is to eliminate costs of searching for prices, contracting, lower distribution cost, payment collection and advertising and may also reduce the cost of communicating and coordinating production and also have assured supplies and market, increasing or creating barriers to entry for potential competitors. Unlike horizontal mergers, which have no specific timing, vertical mergers take place when both firms plan to integrate the production process and capitalise on the demand for the product. Forward integration take place when a raw material supplier finds a regular procurer of its products while backward integration takes place when a manufacturer finds a cheap source of raw material supplier. For example Merger of Usha Martin and Usha Beltron. Usha Martin and Usha Beltron merged their businesses to enhance shareholder value, through business synergies. The merger will also enable both the companies to pool resources and streamline business and finance with operational efficiencies and cost reduction and also help in development of new products that require synergies.

3. Conglomerate Mergers: Conglomerate mergers are affected among firms that are in different or unrelated business activity. In other words, firms engaged in two different / unrelated business activities combine together. Firms opting for conglomerate merger control a range of activities in various industries that require different skills in the specific managerial functions of research, applied engineering, production, marketing and so on. This type of diversification can be achieved mainly by external acquisition and mergers and is not generally possible through internal development. The basic purpose of such merger is to effective utilization of unutilized financial resources and enlarge debt capacity through re-organising their financial structure so as to maximize shareholders earnings per share (EPS), lowering the cost of capital and thereby raising maximizing value of the firm and the share price. Mergers enhance the overall stability of the acquirer company and create balance in the company's total portfolio of diverse products and production processes. These types of mergers are also called concentric mergers. Firms operating in different geographic locations also proceed with these types of mergers. Conglomerate mergers have been further sub-divided into: (a) Financial Conglomerates, (b) Managerial Conglomerates, and (c) Concentric Companies

a. Financial Conglomerates: These conglomerates provide a flow of funds to every segment of their operations, exercise control and are the ultimate financial risk takers. They not only assume financial responsibility and control but also play a chief role in operating decisions. They also improve risk-return ratio; reduce risk; improve the quality of general and functional managerial performance; provide effective competitive process; provide distinction between performance based on underlying potentials in the product market area and results related to managerial performance.

b. Managerial Conglomerates: Managerial conglomerates provide managerial counsel and interaction on decisions thereby, increasing potential for improving performance. When two firms of unequal managerial competence combine, the performance of the combined

firm will be greater than the sum of equal parts that provide large economic benefits.

c. Concentric Conglomerates: The primary difference between managerial conglomerate and concentric company is its distinction between respective general and specific management functions. The merger is termed as concentric when there is a carry-over of specific management functions or any complementarities in relative strengths between management functions.

4. Other types: Apart from the above-discussed three (Horizontal, vertical, and conglomerate) types of mergers the following are the few other forms of mergers:

a. Within Stream Mergers: This type of mergers take place when subsidiary company merges with parent company or parent company merges with subsidiary company. The former type of merger is known as “Down stream” merger, whereas the latter is known as “Upstreammerger”.

For example, recently, ICICI Ltd., a parent company has merged with its subsidiary ICICI Bank signifying down stream merger. Instance of up streammerger is the merger of Bhadrachellam Paper Board, subsidiary company with the parent ITC Ltd., and like.

b. Circular Combination: Companies producing distinct products seek amalgamation to share common distribution and R&D facilities to obtain economies by elimination of cost on duplication and promoting market enlargement. The acquiring company obtains benefits in the form of economies of resource sharing and diversification.

c. Cross Boarder Merger: It takes place between or among companies belonging to different countries of the world. In the globalized era this type of merger or acquisitions become common. The business houses from France Germany, Holland, and Japan have been very active in acquisitions of companies in different parts of the world. This Type of mergers takes place due to the benefits like globalisation of markets for many products, away from competition in the home market, explosion of technology, and massive investments in R&D.

3.2.4 REASONS FOR MERGERS

Why do mergers take place? It is believed that mergers and acquisitions are strategic decisions or corporate level decisions that are leading to maximization of a company’s growth by enhancing its production capacity and marketing operations. In other words, the basic purpose of merger is to achieve faster growth of the corporate business. Faster growth may be had through product improvement and competitive position i.e. enhanced profitability through enhanced production and efficient distribution of goods and services or by expanding the scope of the enterprise through —empire building through acquisition of other corporate units. They have become popular in the recent times because of increased competition, breaking of trade barriers, free flow of capital across countries and liberalization, globalisation, and privatization of business as a number of economies are being deregulated and integrated with other economies. There are a good number of reasons attributed for the occurrence of mergers and acquisitions. Corporate mergers and acquisitions take place with a view to:

1. Leverage the benefit of synergetic operating economies,
2. Diversification of business risk and maintain stability in earnings,
3. Get the benefit of tax shield,
4. Have faster growth of business and income,
5. Have the benefits of effective managerial,
6. Acquire specific assets,
7. Limit or elimination of competition,

8. Effective utilization of under-utilised assets,
9. Utilise surplus financial resources,
10. Displace existing management,
11. Circumvent government regulations,
12. Reap speculative gains attendant upon new security issue or change P/E Ratio, 13. Create an image of aggressiveness and strategic opportunity, empire building and to amass vast economic powers of the economy. The above listed are few of the reasons for a merger.

3.2.5 BENEFITS OF MERGERS

As we have read in the above that there are three main types of mergers. Why do corporations merge? It is believed that mergers and acquisitions are taking place with the objective of maximization of company's growth by enhancing its production and marketing operations. The major benefits of a merger or acquisition are:

1. Synergy Synergy means working together. Synergy results from complementary activities. Increase in effective value is one of the prime reasons for mergers or acquisitions. For example, one company may have more profitable investment opportunities, while the other may have huge financial resources. Here synergy benefits are arrived only when these two companies with more investment opportunities and huge financial resources are merged. Other wise the two firms may be able earn low profit, because of lack of investment opportunities or lack of financial resources. When the two firms with different complementary skills they can create more value which is higher than the sum of individual firms profits without merger. Generally synergy value in positive and this is the reason for mergers. For example, Merger of Hindustan Computers, Hindustan Reprographics, Hindustan Telecommunications, and Indian Computer Software Company into HCL Limited exhibited synergy in transfer of technology and resources to enable the company to cut down imports of components at a fabulous duty of 198 per cent. Illustration: There are two firms Bharat Ltd and Hindustan Ltd are planning to merge, whose per-merger values are Rs.420 lakhs, and Rs. 200 lakhs. They are merging with the objective of savings with present value of Rs.50 lakhs. For acquiring Hindustan Ltd. Firm Bharat Ltd will be required to pay Rs.220 lakhs (consisting of Rs. 180 lakhs in the form of equity shares and Rs.40 lakhs in the form of cash). Besides the purchase consideration the Bharath Ltd. need to incur acquisition cost of Rs. 10 lakhs. Determine the value of the gain, costs, and net gain from merger. Solution: Gain is Rs. 40 lakhs

$$\text{Cost} = \text{Purchase Value} + \text{Acquisition cost} - \text{Pre-merger value of Hindustan Ltd.}$$

$$\text{Cost} = \text{Rs. 220 lakhs} + \text{Rs.10 lakhs} - \text{Rs.200 lakhs.} = \text{Rs. 30 lakhs.}$$

$$\text{Net Gain} = \text{Expected savings} - \text{Cost;} = \text{Rs.40 lakhs} - \text{Rs.30 lakhs;} = \text{Rs.10 lakhs.}$$
2. Increase in Effective Value Value of the firm increases when a firm acquires the assets of another firm. For example, P Ltd and Q Ltd merge and form a new company R Ltd, then the effective value of the R Ltd is expected to be greater than the sum of the P Ltd. and Q Ltd. This is because of the synergy benefits. Reliance Industries has highest value of assets, which is possible after acquiring Larsen and Tubro.
3. Economies of Scale Economies of scale are unit cost reductions associated with a large scale of output. Manufacturing in large scale is possible when two or more companies combine. The economies of scale is possible because of intensive utilization of production capacities, distribution network, engineering services, research & development facilities, etc. economies of scale of generally possible in the case of horizontal mergers with the objective of intensive utilization of resources. There are no economies of scale in case of vertical mergers, but they take place with the objective of improved coordination of activities, lower inventory levels, and

higher market power of the combined company. On the other hand conglomerate mergers helps in reducing or elimination of certain overhead expenses. But the benefits of economies of scale are available up to a certain level of operations beyond which the per unit average cost increases. Put in simple the economies of scale are available only at optimal level of operations, at which the average cost per unit is minimum.

4. Economies of Scope When two or more business units in different industries share resources such as manufacturing facilities, distribution channels, advertising campaigns, R&D cost, they may be able to realize economies of scope: the cost reductions associated with sharing resources across businesses. For example Procter & Gamble can enjoy economies of scope if it acquires a consumer product company that benefits from its highly regarded marketing skills and also helps in obtaining the benefits of economies of scale.

5. Fast Growth A merger often enables the amalgamating firm to grow at a faster rate than is possible through internal expansion, because acquiring company enters into a new market quickly, avoids the time required to build new plant, and establishing new product lines. In other words, internal growth requires quite lengthy period it need to establish R&D, develop new product, market penetration and setting up a totally new administration.

6. Tax Benefits Certain mergers take place just to get the benefit of tax shields. Tax benefits are available for a firm, which acquires a firm that is running with cumulative losses or unabsorbed depreciation. The firm with accumulated losses or unabsorbed depreciation may not be able to get the benefit of tax shield. Section 72A of Income Tax Act, 1961 provides tax shield incentive for reverse mergers for the survival of sick units. However, when it merges with a profit-making firm, its accumulated losses can be set off against the profits of the profit-making firm and tax benefits can be quickly realized. An example of a merger to reduce tax liability is the absorption of Ahmedabad Cotton Mills Limited (ACML) by Arbind Mills in 1979. ACML was closed in August 1977 due to labor problem. At the time of merger in April 1979, saved about Rs.2 crore in tax liability for the next two years after the merger because it could set-off ACML's accumulated loss against its profits. Illustration: Dream well Company acquires Well Do Company. At the date of acquisition the accumulated losses of Well Do Company are Rs.500 lakhs. Dream Well Company is running with a profit record due to the well-experienced management. The expected earnings before tax of Dream Well Company over three year period are Rs.150 lakhs, Rs.250 lakhs, and Rs.350 lakhs for the years 1,2, and 3 respectively. Determine the present value of tax gains to accrue on account of merger to Dream Well Company, if the company is in the tax bracket of 35 per cent and 12 per cent discount rate. Solution: Present Value of Tax Gain Particulars Years (Rs. In lakhs) 1 2 3 Earnings Before Tax Less: Recovery of Loss Tax Benefit (Recovery of Loss x Tax Rate) Present Value Factor at 12 per cent Present Value of Tax Shield 150 150 52.5 0.893 46.8825 250 250 87.5 0.797 69.7375 350 100* 35.0 0.712 24.92 Total Present Value of Tax benefit to Dream Well Company 144.54 * (Rs.500 lakhs accumulated loss of firm Well Do Company – Rs.150 lakhs, Rs.250 lakhs loss adjusted in the year 1 and 2 respectively).

7. Limiting or Elimination of Competition Some times elimination or limiting of competition may be the prime motive for merger or acquisition. Competition may lead to cut thought competition, which will benefit the consumer. Any two or more firms that are competing in the market with similar product, by price-cutting strategy can opt for merger or acquiring, there by making monopoly or limiting competition they can be better off. For example, now there is price

war going on among Ariel, Excel and Tide detergent soap and powers, and consumers are getting the benefits reducing prices. The firms that are manufacturing these products can go for merger or acquisition, by which they definitely avoid competition among them and they can limit the competition in the industry.

8. Stabilisation through Diversification Diversification is another major reason or advantage in the case of conglomerate mergers. Merger between two companies, which are unrelated businesses, would be able to reduce the risk, increase rate of return on investment, and thereby increase market value of the firm. In other words, conglomerate mergers helps in stabilizing or smoothen overall corporate income, which would otherwise fluctuate due to seasonal or economic cycles or product life cycle stages. In operational terms, the greater the combination of statistically independent, or negatively correlated businesses or income streams of the merged companies, the higher will be the reduction in the business risk and greater will be the benefit of diversification or vice versa. An example of diversification through mergers to reduce total risk and improve profitability is that RPG Enterprises of Goenka Group. The group started its takeover activity in 1979. It comprises of a large number of companies, most of which have been takeover. The strategy has been to look out for any foreign disinvestments, or any cases of sick companies, which could prove right targets at low takeover prices. In 1988, RPG took over ICIM and Harrison's Malayalam Limited. Acquiring ICIM has provided an easy access to the electronics industry.

9. Utilisation of Surplus Funds There are four product lifecycles such as introduction, growth, maturity, and decline. A firm may need more funds in the initial stage for managing the cycle that is less profitable or not profitable, and growth stage also need funds for acquiring resources assets for managing the growth. But firm may have lot of funds in the maturity stage, and may not have profitable investment opportunities. Such a firm generally distributes dividends generously and even buys back its shares, if it is possible. However, most managements' of corporate have the practice of investing the surplus funds on investments, even though they are not profitable. In such a case, a merger with another firm involving cash compensation often represents a more efficient utilization of surplus funds.

10. Managerial Effectiveness There are cases where firms interested to merge with another company with the idea of getting benefit through managerial effectiveness. This is one of the potential gains of mergers is an increase in managerial effectiveness. This may happen if a more effective management team replaces the existing management team, which is performing poorly. Often, a company, with managerial inadequacies, can gain immensely from the superior management that is likely to emerge as a sequel to the merger. Having greater congruence between the interests of managers and the shareholders is another benefit of merger.

11. Lowering the Finance Cost Merger helps in larger size operations and greater earnings capacity. This will help in reducing the cost of borrowing for merged firm. Because creditors are merged with merged firm and they enjoy better protection than the creditors of the merging firms independently. Generally when there is high and additional protection reduces the cost of debt, and imposes the cost of equity, by imposing additional burden on equity shareholders. There is benefit in the form of finance cost only when the reduction in cost of debt is higher than the increase in equity cost. Another aspect of the financing costs is issue cost. A merged firm is able to realize the economies of scale in flotation and transaction costs related to an issue of capital. Issue costs are saved when the merged firm makes a larger security issue.

3.2.6 MOTIVATORS OF MERGERS AND ACQUISITIONS

Corporate restructuring in the form of merges or acquisitions are generally motivated by equity shareholders, managers, and the promoters of the combining companies. The following paragraphs make us clear about the factors that motivate the shareholders, managers, and promoters to lend support to these merges and acquisitions:

1. Equity Shareholders As you might have observed that the share price of a company goes up in the secondary market, when there is news about the company's future plans on merges or acquisitions. Generally investors invest their surplus funds on a company's equity, with the expectation of increase in share price thereby maximizing their value. Sometimes investors move from one company to another company, which is planning to restructure in the form of merger or acquisition. Shareholders may gain from merges in different ways viz. from the gains and achievement of the company through maximization of profits by creating monopoly, economies of scale, minimizing risk by diversification of product line, acquisition of intellectual assets (human capital) which are not available otherwise, and better investment opportunity in combinations. These are the few factors that motivate shareholders to support merges or acquisitions, but they may not be completely generalised for all merges or acquisitions. However, one or more factors would generally available in each merger or acquisition, which will motivate the shareholders to support merges or acquisitions,

2. Managers Managers here we mean all the people who are working at middle level and at higher level. In other they include BoDs, managers at all functional levels. BoDs have been elected by equity shareholders of the company, and assigned the responsibility of managing the company, who in turn appoint other employees whose support is need for managing the company. Managers are concerned with improving of the operations of the company, managing the affairs of the company effectively for all round gains and growth of the company. Effective management of the company's operations and all round growth provides the managers better deals through raising their status, raising their perks and fringe benefits, placing their relatives in the organization, and by proving them as talented managers. Some times before getting support from managers to merges or acquisitions there is a need to assure guaranteed benefits to them. But sometimes they may not support the restructuring activity when they think that they are going to be displaced at the hands of new management in amalgamated company and resultant depreciation from merger or acquisition.

3. Promoters Promoters are those people who have stated or promoted an organization. Generally promoters of private companies are benefited with the merges of a public company. Managers do offer to company promoters the advantage of increasing the size of their company as well as financial structure and strength. Managers help the promoters in converting their closely held and private limited company into a public company without contributing much wealth and without losing control over the company. Take a merger of Jaiprakash Industries, which was formed out of merger of Jaiprakash Associates and Jay Pee Rawa Cement. Jayaprakash Associates was a closely held company. The merger enabled the promoters of Jaiprakash Associates to have a stake at 60 per cent worth Rs.39.85 crores, in Jaiprakash Industries Limited against an investment of just Rs.4.5 crore in Jaiprakash Associates. Thus the merger invariably results into monetary gains for the promoters and their associates in the surviving company. Another example, take the Merger of Hindustan Computers, Hindustan Reprographics, Hindustan Telecommunications, and Indian Computer Software Company into HCL Limited exhibited synergy in transfer of technology and resources to enable the company to cut down imports of components at a fabulous duty of 198 per cent. In this merger Hindustan Reprographics was the only one public company and the remaining three merging organisations

were private limited companies. The promoters of Hindustan Computers were allotted equity shares worth Rs. 1.27 crores on merger in a new company called HCL Limited. This gave the promoters of Hindustan Computers an 86 per cent stake in HCL's equity worth of Rs.1.48 crores. This gain was against the original investment of meager Rs.40 lakhs in Hindustan Computers and they did not invest any extra money in getting shares worth Rs 1.48 crores.

3.2.7 IMPACT OF MERGERS ON GENERAL PUBLIC

The word restructure particularly merger has been symbolic with conflict, dislocation and economic and financial pain or gain. It is largely perceived in terms of its external consequences for investors, employees, competitors, suppliers, and host communities. The impact of mergers on general public could be viewed as aspects of benefits and costs to,

- (1) Consumers,
- (2) Workers or Employees, and
- (3) General Public.

1. Consumers Mergers are beneficial to the consumers of products or services, only when the merger realized economic (i.e., enhanced economies, and diversification which lead to manufacture better quality products at lower prices) gains. These economic benefits are transferred to the consumers in the form of lowers prices, and better quality products or services, which directly raise their standard of living and quality of life. While mergers are going to be costly when they create monopoly or minimize competition among companies. Creating monopoly or limiting competition leads to produce low quality products or provides low quality services like after sales services at reasonably high prices.

2. Workers Workers or employees community would be benefited from merger or acquisition only when the restructuring helps in satisfying their demands, in the form of employment, increased wages, improved working environment, better living conditions and amenities. But the merger or acquisition of a company by a conglomerate or other acquiring company may have the effect on both sides of increasing welfare in the form of enhanced quality of life or it also decrease the welfare in the form of retrenchment of some employees, which would result purchasing power and makes their life miserable one.

3. General Public As we have read in the above that mergers or acquisitions create monopoly or limit the competition. This will ultimately lead to centralized concentration of power in small number of corporate leaders, which results in the concentration of an economic aggregation of economic power in their hands. Here economic power means, the ability to control products' prices and industries output as monopolists. Generally such monopoly affects social and political environment to lean everything in their favor with objective of maintaining power and expand their business empire. This advances lead to economic exploitation. But in a free economy a monopolist does not stay for a long period as other corporate enter into this field to reap the benefits of high prices set in by the monopolist. Entry of new companies in this business enforces competition in the market, which will help to consumers to substitute the alternative products. Therefore mergers or acquisitions costly to the public only when creation of monopoly and possibility of entry of new companies in that business area. Put in simple mergers are dangerous, when they elimination of healthy competition; concentration of economic power; and adverse effects on national economy. However, mergers are essential for the fast growth of the organisations. At the same time the dangers of mergers are more than off-set by advantages of mergers. This is possible only when every merger or acquisition proposal must be examined

keeping in view the advantages and dangers, there by allowing mergers or acquisitions that help to a group of stakeholders.

3.2.8 COSTS AND BENEFITS OF A MERGER When a company A acquires another company say B

then it is a capital investment decision for company A and it is a capital disinvestment decision for company B. Thus, both the companies need to calculate the Net Present Value (NPV) of their decisions. To calculate the NPV to company A

there is a need to calculate the benefit and cost of the merger. The benefit of the merger is equal to the difference between the value of the combined identity (PVAB) and the sum of the value of both firms as a separate entity. It can be expressed as $\text{Benefit} = (\text{PVAB}) - (\text{PVA} + \text{PVB})$ Basis for Computation of NPV of Acquirer and Acquiree (A). Cash compensation, or (B) Compensation in Stock. But there is important difference between cash and stock compensation. If the compensation is paid in the form of cash, the cost of the acquisition is independent of the gains of the acquisition. On the other hand, if the compensation is paid in the form of stock, the cost of the acquisition is dependent on the gains of the acquisition. This can be seen in the following illustrations. (A) NPV of A and B in case the Compensation is in Cash: Assuming that compensation to firm B is paid in cash, the cost of the merger from the point of view of firm A can be calculated as: $\text{Cost} = \text{Cash} - \text{PVB}$ The net present value of the merger for the firm A is the difference between the benefit and the cost as defined above. So $\text{NPV for A Company} = \text{Benefit} - \text{Cost} = [(\text{PVAB} - (\text{PVA} + \text{PVB})) - ((\text{Cash} - \text{PVB}))] = \text{PVAB} - \text{PVA} - \text{Cash}$ The net present value of the merger from the point of view of firm B is the same as the cost of the merger for firm A. Hence, $\text{NPV to B} = (\text{Cash} - \text{PVB})$ Illustration: Firm A has a value of Rs. 1,00,00,000 and Firm B has a value of Rs.25, 00,000. If the two firms merge, cost savings with a present value of Rs.25, 00,000 would occur. Firm A proposes to offer Rs. 30,00,000 cash compensation to acquire Firm B. Calculate the net present value (NPV) of the merger to the two firms. Solution: Given Values are: PVA: Rs.1, 00,00,000; PVB: Rs.25, 00,000; PVAB: Rs.1, 50,00,000 (i.e., PVA+ PVB + PV of cost savings); Cash: Rs.30, 00,000. i. Cost of Acquiring Firm B = Cash - PVB = Rs.30, 00,000 - Rs.25, 00,000 = Rs.5, 00,000 ii . Benefit of Acquiring Firm B = PVAB - (PVA + PVB) = Rs.1, 50,00,000 - (Rs.1, 00,00,000 + Rs.25, 00,000) = Rs.25, 00,000 iii. NPV for A Firm = Benefit - Cost = Rs.25, 00,000 - Rs.5, 00,000 = Rs.20, 00,000 iv. NPV for B Firm = Cash - PVB = Rs.30, 00,000 - Rs.25, 00,000 = Rs.5, 00,000 (B) NPV of A and B in case the Compensation is in Stock: In the above scenario we assumed that compensation is paid in cash, however in real life compensation is usually paid in terms of stock. In that case, cost of the merger needs to be calculated carefully. It is explained with the help of an illustration Illustration: Firm A plans to acquire firm B. Following are the statistics of firms before the merger –

Particulars	A	B
Market price per share (Rs.)	50	20
Number of Shares	2,50,000	1,25,000
Market value of the firm (Rs.)	1, 25,00,000	25, 00,000

The merger is expected to bring gains, which have a PV of Rs.25, 00,000. Firm A offers 62,500 shares in exchange for 1,25,000 shares to the shareholders of firm B. Calculate the net present value (NPV) of the merger to the two firms. Solution: i. Cost of acquiring Firm B in this case is defined as $\text{Cost} = \text{Offered Shares} \times \text{Market Price of Firm A's Share} \times \text{Market Value of Firm B} = 62,500 \text{ Shares} \times \text{Rs.50 per Shares} - \text{Rs, 25,00,000} = \text{Rs. 6,25,000}$ The true cost, however, is higher than Rs.6,25,000. While calculating the true cost evaluator must recognize that Firm B's shareholders end up owning a fraction of the share capital of the combined Firm. The cost in this case is defined as – $\text{Cost} =$

α PVAB - PVB Where: α Represents the fraction of the combined entity received by shareholders of B. In the above example, the share of B in the combined entity is – $\alpha = 62,500 / (2,50,000 + 62,500) = 0.2$ Assuming that the market value of the combined entity will be equal to the sum of present value of the separate entities and the benefit of merger. Then, PVAB = PVA+PVB+Benefit =1,25,00,000+ 25,00,000 + 25,00,000 = Rs.1, 75,00,000 Cost = α PVAB - PVB = $0.2 \times \text{Rs.}1, 75,00,000 - 25,00,000 = \text{Rs.}10, 00,000$ Thus NPV to A = Benefit – Cost = $25,00,000 - \text{Rs.} 10,00,000 = \text{Rs.}15, 00,000$ NPV to B = Cost to A = Rs.10, 00,000.

3.2.9 DETERMINATION OF FORM OF COMPENSATION (CSAH Vs STOCK) When a firm is planning to acquire another firm it is very important to determine the form of compensation. The compensation may be paid in the form of cash or stock. Determination of the form of compensation depends on the following four factors. (1) Overvaluation, (2) Taxes, (3) Sharing of Risks and Rewards, and (4) Discipline. 1. Overvaluation: Cash form of compensation is less costly and it is preferable when the acquiring firm's stock is overvalued relative to the target or acquired firm's stock. On the other hand stock form of compensation is less costly and it is preferable when the acquiring firm's stock is under valued relative to the target or acquired firm's stock. 2. Taxes: Acquired firm's shareholders are required to pay tax if they receive compensation in the form of cash. On the other hand payment of tax is not necessary if the acquired firm's pays compensation in the form of stock. Here generally acquiring firm need to find the acquired or target firm's majority shareholders' preferred form of compensation. 3. Sharing of Risks and Rewards: Payment of compensation in the form of cash does not allow the target firm's shareholders to share risk and return of the merger, because they are not the owners of the combined firm. On the other hand, payment of compensation in the form of cash allows the target firm's shareholders to share the risk and return of the merger, since they are becoming the owners in the combined firm. 4. Discipline: Empirical evidence suggests that acquiring another firm by paying compensation in the form of cash tend to succeed more compared to the acquiring another firm by paying compensation in the form of stock. This is because acquiring firm perceives that acquiring firm by paying cash compensation is morerisky compared to stock compensation. In the corporate language this is called discipline, in such case the buyers are more disciplined, circumspect, and rigorous in their evaluation.

3.2.10 DETERMINATION OF SWAP (EXCHANGE RATIO):

Calculation of Exchange Ratio from the perspective of the acquired and the acquiring firm Whenever a Firm A acquires another Firm B, the compensation to the shareholders of the acquired firm is usually paid in the form of shares of the acquiring firm. In other words, shares of Firm A will be given in exchange for shares of Firm B. Thus, the exchange ratio is a very important factor in any kind of merger. Firm A will want to keep this ratio as low as possible, while Firm B will want it to be as high as possible. Larson and Gonedes developed a model for exchange ratio determination. Their model holds that both firms would ensure that post merger; their equivalent price per share will at least equal their premerger price per share. Their model has been presented in somewhat simpler terms by Conn and Nielson for determining the exchange ratio. The symbols used in this model are: ER = Exchange ratio P = Price per share EPS = Earning per share PE = Price earning multiple E = Earnings S = Number of outstanding equity shares AER = Actual exchange ratio In addition, the acquiring, acquired and combined firms will be referred to by subscripts A, B and AB respectively. Firm A would ensure that the wealth of its shareholders is preserved. This implies that the price per share of the combined firm

is at least equal to the price per share of firm A before merger: $P_{AB} \geq P_A$ For the sake of simplicity consider that $P_{AB} = P_A$ The market price per share of the combined firm is expressed as the product of Price earnings ratio of the combined firm and Earnings per share of the combined firm: $P_{AB} = (PE_{AB}) (EPS_{AB}) = P_A$ ----- (1) Earnings per share of the combined firm can be expressed as: $EPS_{AB} = (E_A + E_B) / [S_A + S_B (ER_A)]$ ----- (2) In equation 2 ER_A represents number of shares of Firm A given in lieu of one share of Firm B. Substituting formula of EPS_{AB} in equation 1 we get $P_A = (PE_{AB}) (E_A + E_B) / [S_A + S_B (ER_A)]$ From the above equation, we may solve for the value of ER_A as follows: $ER_A = (-S_A / S_B) + [(E_A + E_B) PE_{AB}] / P_A S_B$ Illustration: The following relevant information for Firm A and Firm B. Determine the maxi. change ratio if PE ratio for combined firm is 3, 9, 10, 11, 12, 15, and 20.

Particulars	Firm A (Rs.)	Firm B (Rs.)
Market price per share – P	90,00,000	45,00,000
Earnings per share – EPS	12	16
Price / earnings ratio – PE (Times)	0.5	4
Total earnings – E	30,00,000	30,00,000
Number of outstanding equity shares - S	12	16

Solution: Maximum Exchange Ratio for Firm A: $ER_A = (-S_A / S_B) + [(E_A + E_B) PE_{AB}] / P_A S_B = (-45,00,000 / 30,00,000) + [(Rs.90,00,000 + Rs. 30,00,000) PE_{AB}] / 12(30,00,000) = (-1.5) + [(Rs.1,20,00,000) PE_{AB}] / 3,60,00,000 = -1.5 + 0.333(PE_{AB})$

Max. ER	A	B
0.5	1.497	1.83
1.16	2.496	3.495
1.5	5.16	

After discussing the maximum exchange ratio acceptable to the shareholders of Firm A above, we will now calculate the minimum exchange ratio acceptable to the Firm B (ER_B) The basic condition is: $P_{AB} (ER_B) \geq P_B$ ----- (3) Using the equality form of above equation and substituting P_{AB} from equation 1 in equation 3 we get $(PE_{AB}) (EPS_{AB}) (ER_B) = P_B$ Substituting the value of EPS_{AB} from equation 2 in the above equation, and solving the equation for ER_B we get: $ER_B = (P_B S_A) / [(PE_{AB}) (E_A + E_B) - P_B S_B]$ Illustration: The following relevant information for Firm A and Firm B. Determine the mini. change ratio if PE ratio for combined firm is 3, 9, 10, 11, 12, 15, and 20.

Particulars	Firm A (Rs.)	Firm B (Rs.)
Market price per share – P	90,00,000	45,00,000
Earnings per share – EPS	12	16
Price / earnings ratio – PE (Times)	0.5	4
Total earnings – E	30,00,000	30,00,000
Number of outstanding equity shares - S	12	16

Solution: Minimum Exchange Ratio for Firm B: $ER_B = (P_B S_A) / [(PE_{AB}) (E_A + E_B) - P_B S_B] = (4 / 45,00,000) / [(PE_{AB}) (90,00,000 + Rs. 30,00,000) - (4)(30,00,000)] = 1,80,00,000 / [(PE_{AB}) (Rs.1, 20,00,000) - 1,20,00,000] = 1,80,00,000 / [(PE_{AB}) - 0] = 1.5 / [(PE_{AB}) - 0]$

Max. ER	A	B
0.5	0.167	0.15
1.16	0.136	0.125
1.5	0.075	3.2.11

BASIS FOR DETERMINING THE EXCHANGE RATIO When a firm plans to acquire two or more firms, acquiring firm need to pay some financial compensation to the target firm(s). Typically, acquiring firm offers its shares in exchange for the target firm's shares. Then how many shares of acquiring firm should be offered to target firm? The number of shares to be offered depends on the exchange ratio. Exchange ratio (swap ratio) is the number of shares the acquiring firm is willing to give in exchange for one share of the target firm. For example take swap ratio of IOC-IBP merger, The Indian Oil Corporation (IOC) was approved a share swap ratio 125:100, that is 125 equity shares of IOC would be offered for every 100 equity shares of IBP, for merging its subsidiary IBP Co with itself. This ratio was offered due to the amalgamation that will help it save about Rs. 45 crores annually in overhead expenses. At the same time the merger will increase the IOC market share to 61 per cent. How the swap ratio or exchange ratio is determined? What are the bases on which the exchange ratio is determined?

The following are the commonly used bases for determining the exchange ratio:

1. Earnings per share (EPS) or Earnings approach,

2. Market price per share (MPS) or Market value approach,
 3. Book value per share (BVPS) or Book value approach, and
 4. Discounted Cash Flow (DCF) Value Per Share (DCF PS)
1. Earnings Per Share (EPS) or Earnings Approach Under this base EPS of acquiring firm and target firm are considered for determining exchange ratio. EPS of target firm is divided by the EPS of acquiring firm for getting swap ratio. For example, Firm A is planning to acquire Firm B, and it is negotiated with the executive of Firm B and came to an understanding that the exchange ratio is determined based on the both firms EPS. The EPS of Firm A is Rs. 8, and Firm B is Rs.4. The exchange ratio is 0.5 (i.e., Rs.4 / Rs.8). It indicates that half a share of acquiring Firm A will be exchanged for one share of target Firm B. In other words for every 2 shares of target Firm B one share of Firm A is offered. EPS base is right base because EPS reflect prima facie the earning power. But it suffers some limitations. They are it ignore the differences in growth rate of earnings of the two firms, ignores the gains in earnings arising out of merger, ignores the differential risks associated with the earnings of the two firms.
 2. Market Price Per Share (MPS) or Market Value Approach Under this approach exchange ratio is determined based on relative market prices of the shares of the acquiring firm and target firm. Market price per share of target firm is divided by market price per share of acquiring firm for getting swap ratio. Market price per share is determined by the following formulae: $\text{Market Price per share} = \text{Earnings Per Share (EPS)} \div \text{Capitalisation Rate}$ For example, Firm A is planning to acquire Firm B, and it is negotiated with the executive of Firm B and came to an understanding that the exchange ratio is determined based on the relative market price per share. Acquiring Firm A's shares sell for Rs. 100, and target Firm B's shares sell for Rs.30. The exchange ratio is 0.3 (i.e., Rs.30 / Rs.100). In other words for 3 shares of the acquiring Firm A will be exchanged for every 10 shares of target Firm B. Determination of exchange ratio based on the relative market price per share is definitely appropriate one, only when the both firms' shares are actively traded in a competitive market. But when trading is meager, market prices may not be reliable and it may be difficult to identify market price when the shares are not traded. Market price is not available if the any of the firms' shares are not quoted at a stock exchange. If it is quoted it may be difficult to identify the right price since they keep on fluctuating, and those who have vested interest may manipulate market prices.
 3. Book Value Per Share (BVPS) or Book Value Approach Here relative book value per share of the two firms may be used for determining exchange ratio. Book value per share of target firm is divided by the book value per share of acquiring firm for getting swap ratio. Book value (BV)per share is determined by the following formulae: $\text{BV per share} = \text{Shareholders' Funds or Net worth} \div \text{No. of outstanding equity shares}$ For example, Firm A is planning to acquire Firm B, and it is negotiated with the executive of Firm B and came to an understanding that the exchange ratio is determined based on the book value per share. Firm A's book value per share is Rs. 20, and target Firm B's book value per share is Rs.14. The exchange ratio is 0.7 (i.e., Rs.14 / Rs.20). 7 shares of the acquiring Firm A will be exchanged for every 10 shares of target Firm B. The proponents of book value approach contend that it provide a very objective basis. But, it is not very possible argument because book value per share is influenced by accounting policies, which reflect subjective judgments. Apart from

this they are some more objections against book value approach of exchange ratio: book values do not reflect changes in purchasing power of money, and book values often are highly different from true economic values.

4. Discounted Cash Flow (DCF) Value Per Share (DCF PS) Under this approach exchange ratio is determined based on discounted cash flow value per share of the acquiring firm and target firm. Equity value using DCF method is divided by number of equity shares outstanding to get DCF value per share. Equity value using DCF method is equals to the firm value using DCF method minus debt value. For example, Firm A is planning to acquire Firm B, and it is negotiated with the executive of Firm B and came to an understanding that the exchange ratio is determined based on the DCF value per share. Firm A's DCF value per share is Rs. 30, and target Firm B's DCF value per share is Rs.15. The exchange ratio is 0.5 (i.e., Rs.15 / Rs.30). It indicates that half a share of acquiring Firm A will be exchanged for one share of target Firm B. In other words for every 2 shares of target Firm B one share of Firm A is offered. DCF value method of determining exchange is ideally suitable for firms who have credible business plans and cash flow projections for a period of 5 to 10 years for the merging firms.

3.2.12 EVALUATION OF MERGER PROPOSAL

Top management defines the organisation's goals and outlines the policy framework to achieve these objectives. The organisation's goal for business expansion could be accomplished, inter alia through business combinations assimilating a target corporate which can remove the present deficiencies in the organisation and can contribute in the required direction to accomplish the goal of business expansion through enhanced commercial activity i.e., supply of inputs and market for output product diversification, adding up new products and improved technological process, providing new distribution new channels and market segments, making available technical personnel and experienced skilled manpower, research and development establishments, etc. Depending upon the specific need and cost advantage with reference to creating a new set up and/or acquiring a well established setup firm. Search for a Merger Partner The top management may use their own contacts with competitors in the same line of economic activity or in other diversified field which could be identified as better merger partners or may use the contacts of merchant bankers, financial consultants and other agencies in locating suitable merger partners. A number of corporate candidates identified and evaluated based on the organisational history of business and promoters and capital structure; organisational goals; product, market and competitors; organisational setup and management pattern; assets profile movable and immovable assets, land and building; manpower skilled, unskilled, technical personnel and detailed particulars of management employees; accounting policies, financial management and control; operational data; profitability projections; creditors profile and company's credit performance and record with its bankers in particular. They may be short listed when they passed on the above detailed aspects of information. Negotiating with Merger Partner Top management can negotiate at a time with several identified short listed companies suited to be merger partner for settling terms of merger and pickup one of them which offers favorable terms. Negotiations can be had with target companies before making any acquisitional attempt. Same drill of negotiations could be followed in the cases of merger and amalgamation. Activity schedule for planning merger covering different aspects like preliminary consultations with the perspective merger partner and seeking its willingness to cooperate in investigations should be

prepared. There are other aspects, too, in the activity of schedule covering, quantification action plan, purpose, shape and date of merger, profitability and valuation, taxation aspects, legal aspects and developmental plan of the company after merger.

3.13 STEPS FOR MERGER AND AMALGAMATION Once the merger partner has been identified and terms of merger are settled the following procedure can be followed.

1. Scheme of Merger / Amalgamation Once two/more firms agree to merge with each other, and then they have to prepare a scheme of amalgamation. Generally the acquiring company prepares scheme of amalgamation after consulting its merchant banker or financial consultants. There is no specific form prescribed for scheme of amalgamation but scheme should generally contain the following information: - Particulars about transferee (amalgamated) and transferor (amalgamating) firms and the business of transferor. Appointed date. - Main terms of transfer of assets from transferor to transferee with power to execute on behalf or for transferee the deed/documents being given to transferee. - Main terms of transfer of liabilities from transferor to transferee covering any conditions attached to loans / debentures / bonds / other liabilities from bank/financial institution/trustees and listing conditions attached thereto. - Effective date when the scheme will come into effect. Conditions as to carrying on the business activities by transferor between —appointed date and —effective date. Description of happenings and consequences of the scheme coming into effect on effective date. Share capital of Transferor Company and Transferee Company specifying authorized capital, issued capital and subscribed and paid up capital. - Description of proposed share exchange ratio, any conditions attached thereto, any fractional share certificates to be issued, Transferee Company's responsibility to obtain consent of concerned authorities for issue and allotments of shares and listing. - Surrender of shares by shareholder of Transferor Company for exchange into new share certificates. - Conditions about payment of dividend, ranking of equity shares, pro rata dividend declaration and distribution. - Status of employees of the transferor companies from effective date and the status of the provident fund, gratuity fund, super annuity fund or any special scheme or funds created or existing for the benefit of the employees. - Treatment on effective date of any debit balance of transferor company balance sheet. - Miscellaneous provisions covering income tax dues, contingencies and other accounting entries deserving attention or treatment. - Commitment of transferor and transferee companies towards making applications/petitions under sections 391 and 394 and other applicable provisions of the Companies Act, 1956 to their respective High Courts. - Enhancement of borrowing limits of the transferee company upon the scheme coming into effect. - Transferor and transferee companies give assent to change in the scheme by the court or other authorities under law and exercising the powers on behalf of the companies by their respective Boards. - Description of powers of delegates of transferee to give effect to the scheme. - Qualification attached to the scheme, which require approval of different agencies, etc. - Description of revocation/cancellation of the scheme in the absence of approvals qualified in clause 20 above not granted by concerned authorities. - The transferor company will be dissolved without winding up after amalgamation is affected. Statement to bear costs, etc. in connection with the scheme by the transferee company. The acquiring company should be ensured that the scheme of amalgamation is just and equitable to the shareholders and employees of each of the amalgamating company and to the public.

2. Approval of Board of Directors for the scheme In India the scheme of amalgamation / merger is governed by the provisions of Companies Act, 1956, under sections 391-394. Therefore, the scheme of amalgamation requires approval from respective bodies. Respective Board of Directors for transferor and transferee companies is required to approve the scheme of amalgamation.
3. Approval from other Boards According sec.391, of the Company's Act, 1956, the scheme of amalgamation should get it approved by shareholders of the acquiring firm and target firm. Generally shareholders of amalgamating companies should hold their respective meetings under the directions of respective High Courts, and consider the scheme of amalgamation. Approval of the scheme by specialized financial institutions / banks / trustees for debenture holders The Board of Directors should in fact approve the scheme only after it has been cleared by the financial institutions / banks, which have granted loans to these companies or the debentures trustees to avoid any major change in the meeting of the creditors to be convened at the instance of the Company Court's under section 391 of the Companies Act, 1956. Approval of Reserve Bank of India is also needed where the scheme of amalgamation contemplates issue of share / payment of cash to Non-Resident Indians/Foreign nationals under the provisions of Foreign Exchange Management (Transfer or Issue of Security by a Person Resident Outside India) Regulation, 2000. Approval from respective high courts, confirming the amalgamation. The court(s) issues orders for dissolving the amalgamating company, without winding up, on receipt of reports from the official liquidator and the regional director.
4. Examination of Object Clause Examination of object clauses of memorandum of association (MoA) of the transferor and transferee companies to ascertain whether the power of amalgamation / merger exists or not. Further, the object clause of MoA of Transferee (amalgamated) Company should allow for carrying on the business of the transferor (amalgamating) company. If it is not so, it is necessary to amend the object clause, which require approvals from shareholders, board of directors, and Company Law Board.
5. Intimation to Stock Exchange The stock exchanges where transferor and transferee companies are listed or quoted their shares should be informed about the amalgamation proposal. At the same time, from time to time, all copies of notices, resolutions, and any orders should be send to the stock exchanges.
6. Application to Court for directions The next step is to make an application under section 391(1) to the High Court having jurisdiction over the Registered Office of the company, for an order calling a meeting of its members. The transferor company and the transferee company should make separate applications to the High Court. The application shall be made by a Judge's summons in Form No.33 supported by an Affidavit in Form No. 34 (see rule 82 of the Companies (Court) Rules. Ensure that the Affidavit is signed and sworn in the prescribed manner by the deponent prescribed in the Code of Civil Procedure, 1908 (Rule 67 of the Companies (Court) Rules, 1959). The following documents should be submitted with the Judge's summons: (a) A true copy of the Company's Memorandum and Articles; (b) A true copy of the Company's latest audited balance sheet; and (c) A copy of the Board resolution, which authorizes the Director to make the application to the High Court.
7. High Court directions for Members' Meeting Upon the hearing of the summons, the High Court shall give directions fixing the date, time and venue and quorum for the members'

meeting and appointing an Advocate Chairman to preside over the meeting and submit a report to the Court. The court for calling the meeting of creditors in case such request has been made in the application issues similar directions.

8. Approval of Registrar of High Court to notice for calling the meeting of Members / Creditors Pursuant to the directions of the Court, the transferor as well as the transferee companies shall submit for the approval to the Registrar of the respective High Courts the drafts notice/s calling the meetings of the members in Form No.36 together with a scheme of arrangements and explanations, statement under section 393 of the Companies Act and form of proxy in Form No. 37 of the Companies (Court) Rules to be sent to the members along with the said notice. Once Registrar has accorded approval to the notice, then the Chairman appointed for the meeting by the High Court who shall preside over the proposed meeting of members should be signed it.
9. Dispatch of Notices to Members / Shareholders Once the notice has been signed by the chairman of the forthcoming meeting as aforesaid it could be dispatched to the members under certificate of posting at least 21 days before the date of meeting.
10. Advertisement of the Notice of Members' Meetings The Court may direct the issuance of notice of the meeting of these shareholders by advertisement. In such case rule 74 of the Companies (Court) Rules provides that the notice of the meeting should be advertised in such newspaper and in such a manner as the Court may direct not less than 21 clear days before the date fixed for the meeting. The advertisement shall be in Form No. 38 appended to the Companies (Court) Rules. The companies should submit the draft for the notice to be published in Form No. 38 in an English Daily together with a translation thereof in the regional language to the National Company Law Tribunal (NCLT). The advertisement shall be released in the newspapers after the Registrar approves the draft.
11. Confirmation about the Service of the Notice Ensure that at least one week before the date of the meeting, the Chairman appointed for the meeting files an Affidavit to the Court about the service of the notices to the shareholders that the directions regarding the issue of notices and advertisement have been duly complied with.
12. Holding the Shareholders' General meeting and passing the resolutions The general meeting should be held on the appointed by each company for passing the scheme of amalgamation. The amalgamation scheme should be approved by the shareholders, by a majority in number of shareholders present in person or on proxy and voting on the resolution and this majority must represent at least 3/4th in value of the shares held by the members who vote in the poll. Getting approval of scheme amalgamation from shareholders in just enough it should also get approval (at least 3/4th in value of creditors, in each class, who have vote in either person or by proxy) from creditors of the company, for which company need hold separate meeting for creditors.
13. Filing of Resolutions of General Meeting with NCLT for Confirmation Once the shareholders' and creditors general meeting approves the amalgamation scheme by a majority in number of members holding not less than 3/4ths in value of the equity shares, the scheme is binding on all the members of the company. The companies involved in the amalgamation / merger should present a copy of the resolution passed by the shareholders approving the scheme of amalgamation should be filed with the NCLT. Then the NCLT will fix a date of hearing. A notice about the hearing and the date of hearing has to be published

in two newspapers. At the date of hearing NCLT here the parties concerned and ascertaining that the amalgamation / merger scheme is fair and reasonable, and then the NCLT will pass an order sanctioning the same.

14. Filing the NCLT Order with the Registrar of Companies (RoCs) Once the approval of amalgamation order received from NCLT, then the same in true copies, must be filed with the registrar of companies within the time limit specified by the NCLT.
15. Transfer of Assets and Liabilities Section 394(2) vests powers in the High Court to for the transfer of any property or liabilities from transferor company to transferee Company, with effect from the appointed date. In pursuance of and by virtue of such order such properties and liabilities of the transferor shall automatically stand transferred to the transferee company without any further act or deed from the date the Court's order is filed with ROC.
16. Allotment of Shares to Shareholders of Transferor Company Pursuant to the sanctioned scheme of amalgamation, the shareholders of the transferor company are entitled to get shares in the transferee company in the exchange ratio provided under the said scheme. If there is any cash payment to be made the same have to be arranged. There are three different situations in which allotment could be given effect to:
 - i. Where transferor company is not a listed company, the formalities prescribed under listing agreement do not exist and the allotment could take place without setting record date or giving any advanced notice to shareholders except asking them to surrender their old share certificates for exchange by new ones.
 - ii. The second situation will emerge different where Transferor Company is listed company. In this case, the stock exchange is to be intimated of the record date by giving at least 42 days notice or such notice as provided in the listing agreement.
 - iii. The third situation is where allotment to Non-Resident Indians is involved and permission of Reserve Bank of India is necessary. The allotment will take place only on receipt of RBI permission. In this connection refer to regulations 7, 9 and 10B of Foreign Exchange Management (Transfer or Issue of Security by a Person Resident Outside India) Regulations, 2000 as and where applicable. Having made the allotment, the transferee company is required to file with ROC the return of allotment in Form No. 2 appended to the Companies (Central Government's) General Rules and Forms within 30 days from the date of allotment in terms of section 75 of the Act. Transferee company shall having issued the new share certificates in lieu of and in exchange of old ones, surrendered by transferor's shareholders should make necessary entries in the register of members and index of members for the shares so allotted in terms of sections 150 and 151 respectively of the Companies Act, 1956.
17. Listing of Shares at Stock Exchange After the amalgamation is effected, the company, which takes over the assets and liabilities of the transferor company, should apply to the Stock Exchanges where its securities are listed, for listing the new shares allotted to the shareholders of the transferor company.
18. Court order to be Annexed to Memorandum of Transferee Company It is the mandatory requirement vide section 391(4) of the Companies Act, 1956 that after the certified copy of the Court's order sanctioning scheme of amalgamation is filed with the Registrar, it should be annexed to every copy of the Memorandum issued by the transferee company. Failure to comply with requirement renders the company and its officers liable to punishment.

19. Preservation of Books and Papers of Amalgamated Company Section 396A of the Act requires that the books and papers of the amalgamated company should be preserved and not be disposed of without prior permission of the Central Government.
20. Post Merger Secretarial Obligations There are various formalities to be complied with after amalgamation of the companies is given effect to and allotment of shares to the shareholders of the transferor company is over. These formalities include filing of returns with Registrar of Companies, transfer of investments of Transferor Company in the name of the transferee, intimating banks and financial institutions, creditors and debtors about the transfer of the transferor company's assets and liabilities in the name of the transferee company etc. All these aspects along with restructuring of organisation and management and capital are discussed in chapter relating to postmerger reorganization of Transferee Company.
21. Withdrawal of the scheme not permissible Once the requisite majority of Shareholders and creditors has approved the Scheme for merger, the Scheme cannot be withdrawn by subsequent meeting of shareholders by passing Resolution for withdrawal of the Petition submitted to the Court under section 391 for sanctioning the scheme.
22. Cancellation of Scheme and order of Winding-up It was held by the Supreme Court in J.K (Bombay) (P) Ltd. v New Kaiser-i-Hind that the effect of winding-up order is that except for certain preferential payments provided in the Act, the property of the company is applied in satisfaction of its liabilities, as they exist at the commencement of the winding-up. So long as the scheme is in operation and is binding on the company and its creditors, its provisions undoubtedly govern the rights and obligations of those on whom it is binding. But once the scheme is cancelled under section 392(2) on the ground that it cannot be satisfactorily worked and winding-up order passed such an order is deemed to be for all purposes to be one made under section 433. It is not because as if the scheme has been sanctioned under section 391 that a winding-up orders under section 392(2) cannot be made.

3.2.14 TAX ASPECTS OF MERGERS / AMALGAMATIONS Amalgamation for the purpose of Income Tax, 1961, is recognized only when the conditions given under section 2 (1B) of the said Act, are fulfilled. Section 2 (1B) defines amalgamation, in relation to companies, means the merger of one or more companies with another company or the merger of two or more companies to form one company. The company(ies) merging are called amalgamating company or companies and the company with which the amalgamating merge or the company, which is formed as a result of the merger, is called amalgamated company. The amalgamated company is eligible to enjoy tax benefits if the following conditioned are fulfilled:

- i. All properties and liabilities of the amalgamating company(ies) immediately before the amalgamation become the properties and liabilities of the amalgamated company by virtue of the amalgamation;
- ii. Shareholders holding not less than 3/4th in value of the shares in the amalgamating company (ies) become shareholders of the amalgamated company by virtue of the amalgamation.

TAX CONCESSIONS Tax concessions are available for amalgamated company, amalgamating company (ies), and Shareholders of the amalgamating company.

- I. Tax Concessions to Amalgamated Company The tax concessions are available to amalgamated company, that too if the amalgamating company is Indian company.

2. Carry forward and Set off of Business Losses and Unabsorbed Depreciation Section 72 A, of the Income Tax Act, 1961, allows the amalgamated company to carry forward accumulated business losses as well as unabsorbed depreciation of the amalgamating company, provided the following conditions are fulfilled:
 - a. Amalgamated company continues the business of amalgamating company for the minimum period of 5 years from the date of amalgamation order,
 - b. Amalgamated company should hold at least 3/4th of the value of the assets of the amalgamating company (ies), acquired in the scheme of amalgamation, for a minimum period of 5 years.
 - c. The amalgamated company ensure that the amalgamation is for genuine business purpose, by fulfilling the conditions that are prescribed for revival of amalgamating company (ies),
 - d. Amalgamation should be of a company owning an industrial undertaking (the manufacturer or processing of goods, or manufacture of computer software, or generation and distribution of electricity, or business of providing telecommunication services like – cellular, domestic satellite, broad band network, etc., or mining, or construction of ships, aircrafts or rail systems)
2. Expenditure on Acquisition of Patent Right or Copy Rights Generally acquisition of patents rights or copyrights involves expenditure that may be recovered over a period of time. If there were any un-recovered amount in the books of amalgamating company the same would be allowed to be written off by the amalgamated company in the same number of balance installments. After payment of the last installment the rights may be sold by the amalgamated company for a profit or loss if they are no more required, and the profit or loss on sale of the rights is the profit or loss of the amalgamated company. The expenditure on acquisition of rights is eligible for depreciation if it is spent after 31st March, 1998.
3. Capital Expenditure on Scientific Research Capital expenditure of research is must for any company that wants to stay back in the industry. The amount spent on scientific research is generally a huge amount, which is supposed to be recovered over the future period. If amalgamated company accepts an assets represented by capital expenditure on scientific research, on such asset any unabsorbed capital expenditure in the books of amalgamating company would be eligible to be carried forward and set off in the hands on amalgamated company.
4. Amortization of Preliminary Expenses Preliminary expense is the amount spent in the beginning of the firm. If there is any not written off amount in the books of amalgamating company the same would be allowed to deduct in the same manner as would have been allowed to the amalgamating company (ies).
5. Expenditure for Obtaining License to Operate Telecommunication Services When the amalgamating company transfers license to the amalgamated company and the expenditure spent on obtaining the license are yet to be recovered, the same is allowed to the amalgamated company in the same number of balance instalments. After payment of the last installment the license may be sold by the amalgamated company for a profit or loss if they are no more required, and the profit or loss on sale of the rights is the profit or loss of the amalgamated company.

6. Bad Debts When the amalgamated takes over the debts of amalgamating company the same would be allowed as a deduction to the amalgamated company in the same manner as would have been allowed to the amalgamating company. From the above it can be understood that income tax act, is not providing any favor to the amalgamated company. In other words, whatever concessions or deductions would have been available to the amalgamating company (ies) are provided to the amalgamated company. Put in simple, the idea of providing tax concessions or deductions is not put any disadvantage to the amalgamated company due to the amalgamation.

II. Tax Concessions to Amalgamating Company(ies) No Capital Gains Tax According to section 47 (vi), where there is transfer of any capital asset from amalgamating company (ies) to any Indian amalgamated company, such transfer will not be considered as transfer of capital assets for the purpose of capital gains.

III. Tax Concessions to the Shareholders of an Amalgamating Company (ies) According to section 47 (vii), where a shareholder of an Indian amalgamating company(ies) transfers his/her shares, such transaction is not treated as transaction and there is no attraction of capital gains tax, provided the transfer of shares is made in consideration of the allotment of any share to him/her or shares in the amalgamated company.

3.2.15 ACCOUNTING FOR MERGERS AND ACQUISITIONS

According to the Accounting Standard (AS) 14, Accounting for Amalgamations', issued by the Council of the Institute of Chartered Accountants of India. This standard will come into effect in respect of accounting periods commencing on or after 1.4.1995 and will be mandatory in nature. The Guidance Note on Accounting Treatment of Reserves in Amalgamations issued by the Institute in 1983 will stand withdrawn from the aforesaid date. In India merger, defined as amalgamation, which involves the absorption of the target company by the acquiring company that results in the uniting of the interests of the two companies. The accounting treatment in the books of the transferee company is dependent on the nature of amalgamation. If the amalgamation is in the nature of merger then the merger should be structured as pooling of interest. On the other hand acquiring purchases the shares of the target company, then it should be structured as purchase. Therefore there are two main methods of accounting for amalgamations:

- (1) The pooling of interests method; and
- (2) The purchase method.

1. Pooling of Interest Method Use of this method is confined to circumstances which meet the criteria referred to in paragraph 3(e) of Accounting Standard (AS) 14 (issued 1994) Accounting for Amalgamations for an amalgamation in the nature of merger. Under this method the assets and liabilities of the acquiring and the acquired companies are aggregated based on book values without making any adjustments. There is no goodwill, because there is no revaluation of assets and liabilities. Reserves is preserved and they appear in the financial statements of the transferee company in the same form in which they appeared in the financial statements of the transferor company. The difference in capital on account of the exchange ratio (swap ratio) is adjusted in the reserves. Illustration: Company H acquires company B, and issues share worth Rs.20 crore to company B's shareholders. The balance sheets of the both the companies at the time of merger are as follows: (Rs. In Crore)

Particulars	Company H	Company B	Combined Co.
Assets:			
Net fixed assets	25	10	35
Current assets	38	15	53
Total	63	25	88
Liabilities:			
Shareholders funds			
Borrowings			
Current			

liabilities Total 11 17 07 35 19 21 13 53 30 38 20 88 From the above table in can be understood that the shareholders funds are recorded at the book values. Even shareholders of Company B received shares worth Rs.20 crore.

2. Purchase Method Under this method the assets and liabilities of the acquiring company after the acquisition are stated into the books of the acquired company at their market values. The difference between the purchase consideration and the net book value of assets over liabilities is shown as goodwill, in the acquiring company books. The same has to be amortised over a period not exceeding five years. If the purchase consideration less than the net book value of assets over liabilities, the difference is shown as capital reserve. Illustration: Company H acquires company B, assuming to take all its assets and liabilities. The fair market value of company B's fixed assets and current assets is Rs. 27 crore, and Rs.9 respectively. Current liabilities are valued at book value while the fair value of debt is estimated to be Rs. 16 crore. Company H raises cash of Rs. 20 crore to pay to B's shareholders by issuing worth Rs. 20 crore to its own shareholders. The balance sheets of the both the companies before acquisition and after acquisition are shown below: (Rs. In Crore)

Particulars	Company H	Company B	Company H After Acquisition
Assets:			
Net fixed assets	25	10	35
Current assets	15	9	24
Goodwill	07	00	07
Total	47	19	66
Liabilities:			
Shareholders funds	11	17	39
Borrowings	36	00	36
Current liabilities	07	00	07
Total	54	17	77

From the above table in can be understood that the company H paid purchase consideration that is higher than the net book values of assets over liabilities. Thus, Rs. 7 crore shown as goodwill. Calculation of Goodwill: Rs. In crore. Purchase consideration 20 Fair value of fixed assets 27 Fair value of current assets 09 36 Less: Fair value of debt 16 Fair value of debt current liabilities 07 23 Fair value of net assests 13 Goodwill 07

3.2.16 EVALUATION OF MERGER AS A CAPITAL BUDGETING DECISION

When a firm plans to acquire any firm then it should consider the acquisition as a capital budgeting decision. Hence, such a proposal must be evaluated as a capital budgeting decision. Here the target company should be valued in terms of potential to generate incremental future free cash inflows. Free cash flows in the context of merger / amalgamation, are equal to earnings after tax plus non- cash expenses (depreciation and amortisation) less additional investments expected to be made in the long-term assets and working capital of the acquired company. Steps Involved in Evaluating Merger as Capital Budgeting Decision It consists of the following steps –

Step 1: Determination of Cost of Acquisition or Amalgamation (CoA)

Particulars	Amount (Rs)
Payment to equity shareholders (No. of Equity shares issued in amalgamated company X Market Price of share)	XXX
Add: Payment to Preference shareholders	XXX
Debtenture holders	XXX
External Creditors	XXX
Preference shareholders	XX
Accepted obligations	XXX
Add: Dissolution expense	XXX
Unrecorded liability	XXX
Less: Cash proceeds from sale of assets of target company	XXXX
XXXXXXXXXXXXXXXX	XXX
Cost of Amalgamation / Merger	XXXXX

Step 2: Determination of Incremental Expected Free Cash Flows to the Company (FCF)

Particulars	Amount (Rs)
Operating Earnings after tax	XXX
Add: Non cash expenses (Deprecation and amortisation)	XXX
Less: Investment in long-term assets	XXX
Investment in working capital	XXX
Free Cash Flows	XXXX

Step 3: Determination of Terminal Value (TV) Terminal value is the value of the project at the end of the expected closing period. It can be determined with the following equations: i. TV

when FCF are likely to be constant till infinity $TV = FCFT+1 \div Ko$ ii. TV when FCF are likely to grow (g) at a constant rate $TV = FCFT+1 (1 + g) \div (Ko - g)$ iii. TV when FCF are likely to decline at a discount rate $TV = FCFT+1 (1 - g) \div (Ko + g)$ Where: $FCFT+1$ = the expected FCF in the first year after the explicit forecast period. Ko = Cost of capital

Step 4: Determination of Appropriate Cost of Capital or Discount Rate (DF) Cost of capital is generally used as discounting factor for determining present value of FCF. Here the cost of capital determined based on the risk level of amalgamating firm. If amalgamating company risk complexion is matching with the amalgamated firm then the acquiring firm can use its own cost of capital (Ko) as discounting factor. On the other hand if there is any variation in the risk complexion of the amalgamating firm then appropriate cost of capital may be computed after considering the variation in riskiness (high or low) of the projected FCF from the target company.

Step 5: Determination of Present Value of FCF (PV FCF) Incremental projected FCFs (determined in step 2) during the explicit forest period are multiplied with the DF (determined in step 4) to get the present value of the FCF during the explicit forest period.

Step 6: Determination of Net Present Value of FCF (NPV FCF) Net present value of the incremental cash flows equals to PV of FCF (including TV) minus PV of Cost of amalgamation. Generally firms use NPV as a technique of evaluation of a merger or amalgamation or acquisition proposal. If the NPV is positive then the amalgamation is financially feasible. Illustration: Hindustan Co. Ltd., is planning to acquire TarapurCo.Ltd. (target firm). The balance sheet of TarapurCo.Ltd. as on March 31 is as follows (current year)

Liabilities	Amount (Rs. In lakhs)	Assets	Amount (Rs. In lakhs)
Equity share capital (2 lakhs shares of Rs.50 each)	100	Cash	100
Retained earnings	100	Debtors	100
10% Debentures	100	Inventories	100
Creditors	100	Plant & equipment	280
			400
			400

Additional Information:

- Hindustan Co. Ltd., agreed to give 1 share (market price per share is Rs. 180) for every 2 shares of Tarapur Co. Ltd.,
- The shares of Hindustan Co. Ltd., would be issued at its market price,
- The debenture holders will get 11% debentures of the same amount.
- The external liabilities are expected to be settled at Rs. 95 lakhs.
- Dissolution expenses are Rs. 5 lakhs are to be met by the amalgamating company.
- The FCFs of Tarapur's are expected to grow at 4 per cent per annum, after 6 years.
- Relevant cost of capital for Tarapur is 12per cent,
- Tarapur's says that there is unrecorded liability of Rs. 10 lakhs.
- The expected incremental cash flows from amalgamation for 6 years are: Year 1 2 3 4 5 6
FCFs (Rs. In lakhs) 75 100 125 160 115 65 Your are required to advise the company regarding financial feasibility of the amalgamation. Solution:

Step 1: Determination of Cost of Acquisition or Amalgamation (CoA) Particulars Amount (Rs)

Payment to equity shareholders (1,00,000 X Rs.180)	18,00,000
11% Debentures	1,00,00,000
External Liabilities settlement	95,00,000
Unrecorded liability	10,00,000
Dissolution expenses of Tarapur firm	5,00,000
Cost of Amalgamation / Merger	2,28,00,000

Step 2: Determination of Incremental Expected Free Cash Flows to the Company (FCF) The expected incremental cash flows from amalgamation for 6 years are given Year 1 2 3 4 5 6 FCFs (Rs. In lakhs) 75 100 125 160 115 65

Step 3: Determination of Terminal Value (TV) The FCFs of Tarapur's are expected to grow at 4 per cent per annum, after 6 years. So TV of the project at the end of 6 years can be calculated with the following formula: $TV = FCFT+1 (1 + g) \div (Ko - g)$ Where: g = growth rate FCFT+1 = the expected FCF in the first year after the explicit forecast period. Ko = Cost of capital $TV_6 = FCF_6 (1 + g) \div (Ko - g) = Rs. 65 \text{ lakhs } (1+0.04) \div (0.12 - 0.04) = Rs. 67.6 \text{ lakhs} \div (0.08) = Rs. 845$

Step 4: Determination of Appropriate Cost of Capital or Discount Rate (DF) Hindustan Co. Ltd., is using 12 per cent as discounting factor

Step 5: Determination of Present Value of FCF (PV FCF) Incremental projected FCFs (determined in step 2 plus step 3) during the explicit forest period are multiplied with the DF (determined in step 4) to get the present value of the FCF during the explicit forest period.

Year	FCF (Rs. In lakhs)	Discounting Factor (12%)	Present Values (Rs. In lakhs)	
1	75	0.893	66.975	
2	100	0.797	79.70	
3	125	0.712	89.00	
4	160	0.636	101.76	
5	115	0.567	65.205	
6	65	0.507	32.955	
6	Terminal Value	845	0.507	428.415
			Total present value	864.01

Step 6: Determination of Net Present Value of FCF (NPV FCF) (Rs. In lakhs) Total PV of FCF including TV at the end of 6 year 864.01 Less: PV of cost of amalgamation 228.00 Net Present Value 636.01 Decision: The planned acquisition is financially feasible, since its NPV is positive (ie., Rs.636.01 lakhs)

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What is a 'Divestiture'

A divestiture is the partial or full disposal of a business unit through sale, exchange, closure or bankruptcy. A divestiture most commonly results from a management decision to cease operating a business unit because it is not part of a core competency. However, it may also occur if a business unit is deemed to be redundant after a merger or acquisition, if the disposal of a unit increases the resale value of the firm, or if a court requires the sale of a business unit to improve market competition.

BREAKING DOWN 'Divestiture'

A divestiture, in its simplest form, is the disposition or sale of an asset by a company. Divestitures are essentially a way for a company to manage its portfolio of assets. As companies grow, they may find that they are trying to focus on too many lines of business, and they must close some operational units to focus on more profitable lines. Many conglomerates face this problem.

Companies may also sell off business lines if they are under financial duress. For example, an automobile manufacturer that sees a significant and prolonged drop in competitiveness may sell off its financing division to pay for the development of a new line of vehicles. Business units that are divested may be spun off into their own companies rather than closed in bankruptcy or a similar outcome.

Examples of Divestitures

Divestitures can come about in many different forms. However, the most common is the sale of a business unit to improve financial performance. For example, Thomas Reuters Corporation, a multinational mass media and information company based in Canada, sold its intellectual property and sciences (IP&S) division on July 14, 2016. Thomas Reuters initiated the divestiture because it wanted to reduce the amount of leverage on its balance sheet.

The division was purchased by Onex and Baring Private Equity for \$3.55 billion in cash. The IP&S division booked sales of \$1.01 billion in 2015, and 80% of those sales are recurring, making it an attractive investment for the private equity firm. The divestiture represented one-fourth of Thomas Reuters' business in terms of divisions, but it is not expected to alter the company's overall valuation.

Divestitures can also come about due to necessity. One of the most famous cases of court-ordered divestiture involves the breakup of the Bell System in 1982. The U.S. government determined that Bell controlled too large a portion of the nation's telephone service and brought anti-trust charges in 1974. The divestiture created several new telephone companies, including AT&T and the so-called Baby Bells, as well as new equipment

UNIT- IV

STOCK EXCHANGE

A **stock exchange, securities exchange** or bourse, is a facility where stock brokers and traders can buy and sell securities, such as shares of stock and bonds and other financial instruments. Stock exchanges may also provide facilities for the issue and redemption of such securities and instruments and capital events including the payment of income and dividends. Securities traded on a stock exchange include stock issued by listed companies, unit trusts, derivatives, pooled investment products and bonds. Stock exchanges often function as "continuous auction" markets with buyers and sellers consummating transactions at a central location such as the floor of the exchange.^[6] Many stock exchanges today use electronic trading, in place of the traditional floor trading.

To be able to trade a security on a certain stock exchange, the security must be listed there. Usually, there is a central location at least for record keeping, but trade is increasingly less linked to a physical place, as modern markets use electronic networks, which give them advantages of increased speed and reduced cost of transactions. Trade on an exchange is restricted to brokers who are members of the exchange. In recent years, various other trading venues, such as electronic communication networks, alternative trading systems and "dark pools" have taken much of the trading activity away from traditional stock exchanges.^[7]

Initial public offerings of stocks and bonds to investors is done in the primary market and subsequent trading is done in the secondary market. A stock exchange is often the most important component of a stock market. Supply and demand in stock markets are driven by various factors that, as in all free markets, affect the price of stocks (see stock valuation).

There is usually no obligation for stock to be issued through the stock exchange itself, nor must stock be subsequently traded on an exchange. Such trading may be off exchange or over-the-counter. This is the usual way that derivatives and bonds are traded. Increasingly, stock exchanges are part of a global securities market. Stock exchanges also serve an economic function in providing liquidity to shareholders in providing an efficient means of disposing of shares.

Among many other things, the Code of Hammurabi recorded interest-bearing loans.

The term bourse is derived from the 13th-century inn named "Huis terBeurze" (center) in Bruges. From Dutch-speaking cities of the Low Countries, the term 'beurs' spread to other European states where it was corrupted into 'bourse', 'borsa', 'bolsa', 'börse', etc. In England, too, the term 'bourse' was used between 1550 and 1775, eventually giving way to the term 'royal exchange'.

The idea of debt dates back to the ancient world, as evidenced for example by ancient Mesopotamian city clay tablets recording interest-bearing loans. There is little consensus among scholars as to when corporate stock was first traded. Some see the key event as the Dutch East India Company's founding in 1602, while others point to earlier developments. Economist Ulrike Malmendier of the University of California at Berkeley argues that a share market existed as far back as ancient Rome. One of Europe's oldest stock exchanges is the Frankfurt Stock Exchange (Frankfurter Wertpapierbörse) established in 1585 in Frankfurt am Main.

In the Roman Republic, which existed for centuries before the Empire was founded, there were societates publicanorum, organizations of contractors or leaseholders who performed temple-building and other services for the government. One such service was the feeding of geese on the Capitoline Hill as a reward to the birds after their honking warned of a Gallic invasion in 390 B.C. Participants in such organizations had partes or shares, a concept mentioned various times by the statesman and orator Cicero. In one speech, Cicero mentions "shares that

had a very high price at the time." Such evidence, in Malmendier's view, suggests the instruments were tradable, with fluctuating values based on an organization's success. The *societas* declined into obscurity in the time of the emperors, as most of their services were taken over by direct agents of the state.

Tradable bonds as a commonly used type of security were a more recent innovation, spearheaded by the Italian city-states of the late medieval and early Renaissance periods.

Establishment of formal stock exchanges

Economic history of the Dutch Republic, Financial history of the Dutch Republic, and Dutch East India Company

“ The stock market — the daytime adventure serial of the well-to-do — would not be the stock market if it did not have its ups and downs. (...) And it has many other distinctive characteristics. Apart from the economic advantages and disadvantages of stock exchanges — the advantage that they provide a free flow of capital to finance industrial expansion, for instance, and the disadvantage that they provide an all too convenient way for the unlucky, the imprudent, and the gullible to lose their money — their development has created a whole pattern of social behavior, complete with customs, language, and predictable responses to given events. What is truly extraordinary is the speed with which this pattern emerged full blown following the establishment, in 1611, of the world's first important stock exchange — a roofless courtyard in Amsterdam — and the degree to which it persists (with variations, it is true) on the New York Stock Exchange in the nineteen-sixties. Present-day stock trading in the United States — a bewilderingly vast enterprise, involving millions of miles of private telegraph wires, computers that can read and copy the Manhattan Telephone Directory in three minutes, and over twenty million stockholder participants — would seem to be a far cry from a handful of seventeenth-century Dutchmen haggling in the rain. But the field marks are much the same. The first stock exchange was, inadvertently, a laboratory in which new human reactions were revealed. By the same token, the New York Stock Exchange is also a sociological test tube, forever contributing to the human species' self-understanding. The behaviour of the pioneering Dutch stock traders is ably documented in a book entitled “Confusion of Confusions,” written by a plunger on the Amsterdam market named Joseph de la Vega; originally published in 1688, (...) ”

— John Brooks, in “Business Adventures” (1968)^[8]

While the Italian city-states produced the first transferable government bonds, they did not develop the other ingredient necessary to produce a fully-fledged capital market: the stock market in its modern sense.^[9] In the early 1600s the Dutch East India Company (VOC) became the first company in history to issue bonds and shares of stock to the general public. As Edward Stringham (2015) notes, “companies with transferable shares date back to classical Rome, but these were usually not enduring endeavors and no considerable secondary market existed (Neal, 1997, p. 61).”^[10] The VOC, formed to build up the spice trade, operated as a colonial ruler in what is now Indonesia and beyond, a purview that included conducting military operations against the wishes of the exploited natives and of competing colonial powers. Control of the company was held tightly by its directors, with ordinary shareholders not having much influence on management or even access to the company's accounting statements.

Replica of an East Indiaman of the Dutch East India Company/United East Indies Company (VOC). The Dutch East India Company was the first corporation to be ever actually listed on a stock exchange in its modern sense. In other words, the VOC was the world's first formally listed public company.

A 17th-century engraving depicting the Amsterdam Stock Exchange (Amsterdam's old bourse, a.k.a. Beurs van Hendrick de Keyser in Dutch), built by Hendrick de Keyser (c. 1612). The Amsterdam Stock Exchange was the world's first official (formal) stock exchange when it began trading the VOC's freely transferable securities, including bonds and shares of stock.^{[11][12]}

Courtyard of the Amsterdam Stock Exchange (Beurs van Hendrick de Keyser), the foremost centre of European stock markets in the 17th century.

However, shareholders were rewarded well for their investment. The company paid an average dividend of over 16 percent per year from 1602 to 1650. Financial innovation in Amsterdam took many forms. In 1609 investors led by one Isaac Le Maire formed history's first bear syndicate, but their coordinated trading had only a modest impact in driving down share prices, which tended to remain robust throughout the 17th century. By the 1620s the company was expanding its securities issuance with the first use of corporate bonds.

Joseph de la Vega, also known as Joseph Penso de la Vega and by other variations of his name, was an Amsterdam trader from a Spanish Jewish family and a prolific writer as well as a successful businessman in 17th-century Amsterdam. His 1688 book Confusion of Confusions^[13] explained the workings of the city's stock market. It was the earliest book about stock trading and inner workings of a stock market, taking the form of a dialogue between a merchant, a shareholder and a philosopher, the book described a market that was sophisticated but also prone to excesses, and de la Vega offered advice to his readers on such topics as the unpredictability of market shifts and the importance of patience in investment.

In England, King William III sought to modernize the kingdom's finances to pay for its wars, and thus the first government bonds were issued in 1693 and the Bank of England was set up the following year. Soon thereafter, English joint-stock companies began going public.

London Stock Exchange in 1810

London's first stockbrokers, however, were barred from the old commercial center known as the Royal Exchange, reportedly because of their rude manners. Instead, the new trade was conducted from coffee houses along Exchange Alley. By 1698 a broker named John Castaing, operating out of Jonathan's Coffee House, was posting regular lists of stock and commodity prices. Those lists mark the beginning of the London Stock Exchange.

One of history's greatest financial bubbles occurred in the next few decades. At the center of it were the South Sea Company, set up in 1711 to conduct English trade with South America, and the Mississippi Company, focused on commerce with France's Louisiana colony and touted by transplanted Scottish financier John Law, who was acting in effect as France's central banker. Investors snapped up shares in both, and whatever else was available. In 1720, at the height of the mania, there was even an offering of "a company for carrying out an undertaking of great advantage, but nobody to know what it is".

By the end of that same year, share prices had started collapsing, as it became clear that expectations of imminent wealth from the Americas were overblown. In London, Parliament passed the Bubble Act, which stated that only royally chartered companies could issue public shares. In Paris, Law was stripped of office and fled the country. Stock trading was more limited and subdued in subsequent decades. Yet the market survived, and by the 1790s shares were being traded in the young United States.

Börse Frankfurt (founded in 1585)

The floor of the New York Stock Exchange

London Stock Exchange, the City of London

Tokyo Stock Exchange, Tokyo

B3 is the largest stock exchange in Latin America

Indonesian Stock Exchange(Bursa Efek Indonesia) building in Jakarta is considered one of the oldest in Asia.^[14]

Mexican Stock Exchange(Bolsa Mexicana de Valores), it's the second largest stock exchanges in Latin America.

The offices of Bursa Malaysia, Malaysia's national stock exchange (known before demutualization as Kuala Lumpur Stock Exchange)

Stock exchanges have multiple roles in the economy. This may include the following:^[15]

Raising capital for businesses

A stock exchange provides companies with the facility to raise capital for expansion through selling shares to the investing public.^[16]

Common forms of capital raising

Besides the borrowing capacity provided to an individual or firm by the banking system, in the form of credit or a loan, there are four common forms of capital raising used by companies and entrepreneurs. Most of these available options might be achieved, directly or indirectly, through a stock exchange.

Going public

Capital intensive companies, particularly high tech companies, always need to raise high volumes of capital in their early stages. For this reason, the public market provided by the stock exchanges has been one of the most important funding sources for many capital intensive startups. After the 1990s and early-2000s hi-tech listed companies' boom and bust in the world's major stock exchanges, it has been much more demanding for the high-tech entrepreneur to take his/her company public, unless either the company already has products in the market and is generating sales and earnings, or the company has completed advanced promising clinical trials, earned potentially profitable patents or conducted market research which demonstrated very positive outcomes. This is quite different from the situation of the 1990s to early-2000s period, when a number of companies (particularly Internet boom and biotechnology companies) went public in the most prominent stock exchanges around the world, in the total absence of sales, earnings and any well-documented promising outcome. Anyway, every year a number of companies, including unknown highly speculative and financially unpredictable hi-tech startups, are listed for the first time in all the major stock exchanges – there are even specialized entry markets for these kind of companies or stock indexes tracking their performance (examples include the Alternext, CAC Small, SDAX, TecDAX, or most of the third market good companies).

Limited partnerships

A number of companies have also raised significant amounts of capital through R&D limited partnerships. Tax law changes that were enacted in 1987 in the United States changed the tax deductibility of investments in R&D limited partnerships. In order for a partnership to be of interest to investors today, the cash on cash return must be high enough to entice investors.

Venture capital

A third usual source of capital for startup companies has been venture capital. This source remains largely available today, but the maximum statistical amount that the venture company firms in aggregate will invest in any one company is not limitless (it was approximately \$15 million in 2001 for a biotechnology company).

Corporate partners

A fourth alternative source of cash for a private company is a corporate partner, usually an established multinational company, which provides capital for the smaller company in return for marketing rights, patent rights, or equity. Corporate partnerships have been used successfully in a large number of cases.

Mobilizing savings for investment

When people draw their savings and invest in shares (through an IPO or the issuance of new company shares of an already listed company), it usually leads to rational allocation of resources because funds, which could have been consumed, or kept in idle deposits with banks, are mobilized and redirected to help companies' management boards finance their organizations. This may promote business activity with benefits for several economic sectors such as agriculture, commerce and industry, resulting in stronger economic growth and higher productivity levels of firms.

Facilitating company growth

Companies view acquisitions as an opportunity to expand product lines, increase distribution channels, hedge against volatility, increase their market share, or acquire other necessary business assets. A takeover bid or a merger agreement through the stock market is one of the simplest and most common ways for a company to grow by acquisition or fusion.

Profit sharing

Both casual and professional stock investors, as large as institutional investors or as small as an ordinary middle-class family, through dividends and stock price increases that may result in capital gains, share in the wealth of profitable businesses. Unprofitable and troubled businesses may result in capital losses for shareholders.

Corporate governance

By having a wide and varied scope of owners, companies generally tend to improve management standards and efficiency to satisfy the demands of these shareholders and the more stringent rules for public corporations imposed by public stock exchanges and the government. Consequently, it is alleged that public companies (companies that are owned by shareholders who are members of the general public and trade shares on public exchanges) tend to have better management records than privately held companies (those companies where shares are not publicly traded, often owned by the company founders, their families and heirs, or otherwise by a small group of investors).

Despite this claim, some well-documented cases are known where it is alleged that there has been considerable slippage in corporate governance on the part of some public companies. The dot-com bubble in the late 1990s, and the subprime mortgage crisis in 2007–08, are classical examples of corporate mismanagement. Companies like Pets.com (2000), Enron (2001), One.Tel (2001), Sunbeam (2001), Webvan (2001), Adelphia (2002), MCI WorldCom (2002), Parmalat(2003), American International Group (2008), Bear Stearns (2008), Lehman Brothers (2008), General Motors (2009) and Satyam Computer Services (2009) were among the most widely scrutinized by the media.

To assist in corporate governance many banks and companies worldwide utilize securities identification numbers (USIN) to identify, uniquely, their stocks, bonds and other securities. Adding an ISIN code helps to distinctly identify securities and the ISIN system is used worldwide by funds, companies, and governments.

However, when poor financial, ethical or managerial records are known by the stock investors, the stock and the company tend to lose value. In the stock exchanges, shareholders of underperforming firms are often penalized by significant share price decline, and they tend as well to dismiss incompetent management teams.

Creating investment opportunities for small investors

As opposed to other businesses that require huge capital outlay, investing in shares is open to both the large and small stock investors because a person buys the number of shares they can afford. Therefore, the Stock Exchange provides the opportunity for small investors to own shares of the same companies as large investors.

Government capital-raising for development projects^[edit]

Governments at various levels may decide to borrow money to finance infrastructure projects such as sewage and water treatment works or housing estates by selling another category of securities known as bonds. These bonds can be raised through the stock exchange whereby members of the public buy them, thus loaning money to the government. The issuance of such bonds can obviate, in the short term, direct taxation of citizens to finance development—though by securing such bonds with the full faith and credit of the government instead of with collateral, the government must eventually tax citizens or otherwise raise additional funds to make any regular coupon payments and refund the principal when the bonds mature.

Barometer of the economy

At the stock exchange, share prices rise and fall depending, largely, on economic forces. Share prices tend to rise or remain stable when companies and the economy in general show signs of stability and growth. An economic recession, depression, or financial crisis could eventually lead to a stock market crash. Therefore, the movement of share prices and in general of the stock indexes can be an indicator of the general trend in the economy.

Listing requirements

Each stock exchange imposes its own listing requirements upon companies that want to be listed on that exchange. Such conditions may include minimum number of shares outstanding, minimum market capitalization, and minimum annual income.

Examples of listing requirements

The listing requirements imposed by some stock exchanges include:

- **New York Stock Exchange:** the New York Stock Exchange (NYSE) requires a company to have issued at least a million shares of stock worth \$100 million and must have earned more than \$10 million over the last three years.^[17]
- **NASDAQ Stock Exchange:** NASDAQ requires a company to have issued at least 1.25 million shares of stock worth at least \$70 million and must have earned more than \$11 million over the last three years.^[18]
- **London Stock Exchange:** the main market of the London Stock Exchange requires a minimum market capitalization (£700,000), three years of audited financial statements, minimum public float (25%) and sufficient working capital for at least 12 months from the date of listing.
- **Bombay Stock Exchange:** Bombay Stock Exchange (BSE) requires a minimum market capitalization of ₹250 million (US\$3.7 million) and minimum public float equivalent to ₹100 million (US\$1.5 million).^[19]

Ownership

Stock exchanges originated as mutual organizations, owned by its member stock brokers. There has been a recent trend for stock exchanges to demutualize, where the members sell their shares in an initial public offering. In this way the mutual organization becomes a corporation, with shares that are listed on a stock exchange. Examples are Australian Securities Exchange (1998), Euronext (merged with New York Stock Exchange), NASDAQ (2002), Bursa Malaysia (2004), the New York Stock Exchange (2005), Bolsas y Mercados Españoles, and the São Paulo Stock Exchange (2007). The Shenzhen and Shanghai stock exchanges can be characterized as quasi-state institutions insofar as they were created by government bodies in

China and their leading personnel are directly appointed by the China Securities Regulatory Commission. Another example is Tashkent republican stock exchange (Uzbekistan) established in 1994, three years after the collapse of the Soviet Union, mainly state-owned but has a form of a public corporation (joint stock company). According to an Uzbek government decision (March 2012) 25 percent minus one share of Tashkent stock exchange was expected to be sold to Korea Exchange(KRX) in 2014.^[20]

Other types of exchanges

In the 19th century, exchanges were opened to trade forward contracts on commodities. Exchange traded forward contracts are called futures contracts. These commodity exchanges later started offering future contracts on other products, such as interest rates and shares, as well as options contracts. They are now generally known as futures exchanges.

Securities and Exchange Board of India

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Securities and Exchange Board of India

भारतीयप्रतभितऔरवनिमियबोर्ड



SEBI Bhavan, Mumbai headquarters

Agency overview

Formed	<i>12 April 1992</i> ^[1]
Jurisdiction	<i>Government of India</i>
Headquarters	<i>Mumbai, Maharashtra</i>
Employees	<i>643+(2012)</i> ^[2]
Agency executives	<i>Ajay Tyagi, (Chairman)</i> <i>Anand Rajeshwar Baiwar (Indian Revenue Service), (Executive Director)</i>
Website	<i>www.sebi.gov.in</i>

The **Securities and Exchange Board of India (SEBI)** is the regulator for the securities market in India. It was established in the year 1988 and given statutory powers on 30 January 1992 through the SEBI Act, 1992.^[1]

History

Securities and exchange Board of India (SEBI) was first established in the year 1988 AQF as a non-statutory body for regulating the, securities market. It became an autonomous body by The Government of India on 12 May 1992 and given statutory powers in 1992 with SEBI Act 1992 being passed by the Indian Parliament. SEBI has its headquarters at the business district of Bandra Kurla Complex in Mumbai, and has Northern, Eastern, Southern and Western Regional Offices in New Delhi, Kolkata, Chennai and Ahmedabad respectively. It has opened local offices at Jaipur and Bangalore and is planning to open offices at Guwahati, Bhubaneshwar, Patna, Kochi and Chandigarh in Financial Year 2013 - 2014.

Controller of Capital Issues was the regulatory authority before SEBI came into existence; it derived authority from the Capital Issues (Control) Act, 1947.

Initially SEBI was a non statutory body without any statutory power. However, in 1992, the SEBI was given additional statutory power by the Government of India through an amendment to the Securities and Exchange Board of India Act, 1992. In April 1988 the SEBI was constituted as the regulator of capital markets in India under a resolution of the Government of India. The SEBI is managed by its members, which consists of following:

The chairman who is nominated by Union Government of India. Two members, i.e., Officers from Union Finance Ministry. One member from the Reserve Bank of India. The remaining five members are nominated by Union Government of India, out of them at least three shall be whole-time members.

After amendment of 1999, collective investment scheme brought under SEBI except NIDHI, chit fund and cooperatives.

Organization structure



SEBI Headquarter, Mumbai

Ajay Tyagi was appointed chairman on 10 January 2017 replacing U K Sinha.^[3] And took charge of chairman office on 1 March 2017. The Board comprises^[4]

Name	Designation
<u>Ajay Tyagi</u>	Chairman

Gurumoorthy Mahalingam	Whole Time Member
Sanjeev Kaushik	Whole Time Member
<u>MadhabiPuri Buch</u>	Whole Time Member
Subhash Chandra Garg	part time member
Injetisrinivas	Part Time Member
N.S. Vishwanathan	Part Time Member
Arun p. sathe	Part Time Member

List of Chairmen:^[5]

Name	From	To
<u>Ajay Tyagi</u>	10 February 2017	present
<u>U K Sinha</u>	18 February 2011	10 February 2017
<u>C. B. Bhawe</u>	18 February 2008	18 February 2011
<u>M. Damodaran</u>	18 February 2005	18 February 2008
G. N. Bajpai	20 February 2002	18 February 2005
<u>D. R. Mehta</u>	21 February 1995	20 February 2002
S. S. Nadkarni	17 January 1994	31 January 1995
G. V. Ramakrishna	24 August 1990	17 January 1994
Dr. S. A. Dave	12 April 1988	23 August 1990

Functions and responsibilities

The Preamble of the Securities and Exchange Board of India describes the basic functions of the Securities and Exchange Board of India as "...to protect the interests of investors in securities and to promote the development of, and to regulate the securities market and for matters connected there with or incidental there to".

SEBI has to be responsive to the needs of three groups, which constitute the market: • the issuers of securities • the investors • the market intermediaries.

SEBI has three functions rolled into one body: quasi-legislative, quasi-judicial and quasi-executive. It drafts regulations in its legislative capacity, it conducts investigation and enforcement action in its executive function and it passes rulings and orders in its judicial capacity. Though this makes it very powerful, there is an appeal process to create accountability. There is a Securities Appellate Tribunal which is a three-member tribunal and is headed by Mr. Justice J P Devadhar, of the Bombay High Court.^[6] A second appeal lies directly to the Supreme Court. SEBI has taken a very proactive role in streamlining disclosure requirements to international standards.^[7]

Powers

For the discharge of its functions efficiently, SEBI has been vested with the following powers:

1. to approve by-laws of Securities exchanges.
2. to require the Securities exchange to amend their by-laws.
3. inspect the books of accounts and call for periodical returns from recognized Securities exchanges.
4. inspect the books of accounts of financial intermediaries.
5. compel certain companies to list their shares in one or more Securities exchanges.
6. registration broke

There are two types of brokers:

1. Discount Brokers
2. Merchant Brokers

SEBI committees

Technical Advisory Committee

1. Committee for review of structure of market infrastructure institutions
2. Advisory Committee for the SEBI Investor Protection and Education Fund
3. Takeover Regulations Advisory Committee
4. Primary Market Advisory Committee (PMAC)
5. Secondary Market Advisory Committee (SMAC)
6. Mutual Fund Advisory Committee
7. Corporate Bonds & Securitization Advisory Committee

Major achievements

SEBI has enjoyed success as a regulator by pushing systematic reforms aggressively and successively. SEBI is credited for quick movement towards making the markets electronic and paperless by introducing T+5 rolling cycle from July 2001 and T+3 in April 2002 and further to T+2 in April 2003. The rolling cycle of T+2^[8] means, Settlement is done in 2 days after Trade date.^[9] SEBI has been active in setting up the regulations as required under law. SEBI did away with physical certificates that were prone to postal delays, theft and forgery, apart from making the settlement process slow and cumbersome by passing Depositories Act, 1996.^[10]

SEBI has also been instrumental in taking quick and effective steps in light of the global meltdown and the Satyam fiasco.^[citation needed] In October 2011, it increased the extent and quantity of disclosures to be made by Indian corporate promoters.^[11] In light of the global meltdown, it liberalised the takeover code to facilitate investments by removing regulatory structures. In one such move, SEBI has increased the application limit for retail investors to ₹ 2 lakh, from ₹ 1 lakh at present.^[12]

Controversies

Supreme Court of India heard a Public Interest Litigation (PIL) filed by India Rejuvenation Initiative that had challenged the procedure for key appointments adopted by Govt of India. The petition alleged that, "The constitution of the search-cum-selection committee for recommending the name of chairman and every whole-time members of SEBI for appointment has been altered, which directly impacted its balance and could compromise the role of the SEBI as a watchdog."^{[13][14]} On 21 November 2011, the court allowed petitioners to withdraw the petition and file a fresh petition pointing out constitutional issues regarding appointments of regulators and their independence. The Chief Justice of India refused the finance ministry's request to dismiss the PIL and said that the court was well aware of what was going on in SEBI.^{[13][15]} Hearing a similar petition filed by Bengaluru-based advocate Anil Kumar Agarwal, a two judge Supreme Court bench of Justice SS Nijjar and Justice HL Gokhale issued a notice to

the Govt of India, SEBI chief UK Sinha and Omita Paul, Secretary to the [President of India].^{[16][17]}

Further, it came into light that Dr KM Abraham (the then whole time member of SEBI Board) had written to the Prime Minister about malaise in SEBI. He said, "The regulatory institution is under duress and under severe attack from powerful corporate interests operating concertedly to undermine SEBI". He specifically said that Finance Minister's office, and especially his advisor Omita Paul, were trying to influence many cases before SEBI, including those relating to Sahara Group, Reliance, Bank of Rajasthan and MCX.^{[18][19]}...

SEBI and Regional Securities Exchanges^[20]

SEBI in its circular dated May 30, 2012 gave exit - guidelines for Securities exchanges. This was mainly due to illiquid nature of trade on many of 20+ regional Securities exchanges. It had asked many of these exchanges to either meet the required criteria or take a graceful exit. SEBI's new norms for Securities exchanges mandates that it should have minimum net-worth of Rs.100 crore and an annual trading of Rs.1,000 crore. The Indian Securities market regulator SEBI had given the recognized Securities exchanges two years to comply or exit the business.

Process of De-recognition and Exit:^[21]

Following is an excerpts from the circular

- 1.Exchanges may seek exit through voluntary surrender of recognition.
- 2.Securities where the annual trading turnover on its own platform is less than Rs 1000 Crore can apply to SEBI for voluntary surrender of recognition and exit, at any time before the expiry of two years from the date of issuance of this Circular.
- 3.If the Securities exchange is not able to achieve the prescribed turnover of Rs 1000 Crores on continuous basis or does not apply for voluntary surrender of recognition and exit before the expiry of two years from the date of this Circular, SEBI shall proceed with compulsory de-recognition and exit of such Securities exchanges, in terms of the conditions as may be specified by SEBI.
- 4.Securities Exchanges which are already de-recognised as on date, shall make an application for exit within two months from the date of this circular. Upon failure to do so, the de-recognized exchange shall be subject to compulsory exit process.

SEBI Departments

SEBI regulates Indian financial market through its 20 departments.^[22] These are -

1. Commodity Derivatives Market Regulation Department (CDMRD)
2. Corporation Finance Department (CFD)
3. Department of Economic and Policy Analysis (DEPA)
4. Department of Debt and Hybrid Securities (DDHS)
5. Enforcement Department – 1 (EFD1)
6. Enforcement Department – 2 (EFD2)
7. Enquiries and Adjudication Department (EAD)
8. General Services Department (GSD)
9. Human Resources Department (HRD)
- 10.Information Technology Department (ITD)
- 11.Integrated Surveillance Department (ISD)
- 12.Investigations Department (IVD)
- 13.Investment Management Department (IMD)
- 14.Legal Affairs Department (LAD)
- 15.Market Intermediaries Regulation and Supervision Department (MIRSD)

16. Market Regulation Department (MRD)
17. Office of International Affairs (OIA)
18. Office of Investor Assistance and Education (OIAE)
19. Office of the Chairman (OCH)
20. Regional Offices (RO's)

Sensitive indexes

T+ T-

RELATED

Sensex surges 283 points on Govt steps to check rupee slide

The Nifty and Sensex have ceased to reflect the 'true' performance of Indian stock markets today.

A stock market index is expected to provide a measure of the value of a group of stocks. But the two benchmark stock indices, the Sensex and Nifty, have been shown up as hopelessly inadequate in doing this. Even as the majority of stocks are in deep declines or languishing near their bear market lows, the two indices are still putting up a façade of relative resilience. Until almost the end of last month, they were ruling hardly 4 per cent below their life-time peaks of January 2008. The difference has since widened to 11-12 per cent, but even this hardly reflects the battering that most stocks have taken. Some 45 per cent of the stocks traded on the National Stock Exchange are now quoting below their October 2008 lows.

This anomaly underlines the need for the country's exchanges to undertake a review of the methodology for computing their benchmark indices. After all, just as one expects the official Index of Industrial Production or the Wholesale Price Index to reasonably capture output or inflation trends in the economy, the Nifty or Sensex ought to be barometers of the 'true' state of affairs in Indian markets. Currently, both benchmarks are calculated by multiplying the ruling market price of stocks constituting the two indices with their 'free float' – that is, the total shares available for trading after excluding the holdings of promoters. This method automatically lends itself to a few stocks with higher free float or a few others that experience a sharp run-up in their prices dominating the overall index movement. It is precisely these kinds of movements, for instance, in pharma or consumer goods stocks that have camouflaged the heavy losses of their peers in the infrastructure, power or commodities space.

One way to address the issue is to cap the weights assigned to each stock, so that a few shares do not skew the index performance. The modified market capitalisation-weighted method employed in the Nasdaq-100 index, which caps the influence of large stock components, could act as a guide here. The Nifty and Sensex also suffer from not having agri-commodity related stocks or adequate representation from sectors such as real estate and construction. Thus, they do not provide a useful gauge of activity in the Indian economy. The exchanges also need comprehensive indices to capture movements of at least all traded stocks. Something on the lines of the broad-based Wiltshire-5000 Total Market Index in the US could well serve as a model. True, with increasing concentration resulting in the top 100 stocks accounting for over 80 per cent of the daily turnover in Indian exchanges, there may be many stocks whose performance are of little interest to investors. But that doesn't still justify overlooking their price movements while assessing the performance of the traded stock universe.

Achieving Success with the Right Expertise

Credit Suisse Investor Services (CSIS) is the competence center for fund solutions within Credit Suisse. Our fund specialists in Switzerland and in Luxembourg can offer you individual

fund solutions from a single source. We implement your traditional or non-traditional investment strategies in the major fund domiciles (e.g. Switzerland, Luxembourg, Cayman Islands). CSIS has the key licences for access to both liquid and illiquid investments.

Good Reasons

We support you with individual fund solutions and services for traditional and alternative investments.

Reliable Partnership

You trust in our expertise – we trust in our successful partnership.

Strong Solutions

The Personal Advice of Our Teams of Experts Underpins All Our Solutions.

Wealth of Services

Our extensive range of services gives you full control over products and allows you to define all parameters of your fund solution yourself.

Grievance Redressal is a management- and governance-related process used commonly in India. While the term "Grievance Redressal" primarily covers the receipt and processing of complaints from citizens and consumers, a wider definition includes actions taken on any issue raised by them to avail services more effectively.

The traditional approach to Grievance Redressal, which is handled through letters and complaint forms, has very little appeal and its usage rarely reflects the actual state of customer satisfaction or lack thereof. However, new Internet-based approaches used by the government and more by private organizations, such as Public grievance redressal (pgportal)-India, TripAdvisor, and ActPlease.com.

Overview

Grievance Redressal mechanism is mandated in Government agencies and departments that are directly involved with serving citizens and organizations. Usually a Public Relations Officer (PRO) is designated with the role of receiving complaints and initiating corrective action, but this mechanism often fails on account of lack of authority vested in the PRO over officers of various capacities. The Government of India has made effort to systematize the nature of grievance redressal through legislation,^[1] being driven by civil society agitations under leadership of Anna Hazare and Arvind Kejriwal for enactment of the Jan Lokpal Bill into law.^[2]

Private businesses and Non-Profits engaged in service delivery, such as hotels, restaurants, colleges, etc. often tend to set up their own mechanisms, such as Feedback forms and **Contact Us** pages. Such means to get direct feedback enable businesses to take corrective action in time. Governments also often accept the responsibility of Consumer protection from private organizations through **Legislation**^[3] as well as setting up Consumer Courts and Organizations for Dispute Resolution.^[4] Such consumer courts pursue quick action for redress, while maintaining affordability and ease to the consumer.

Coverage

Grievance Redressal typically covers the following types of complaints:

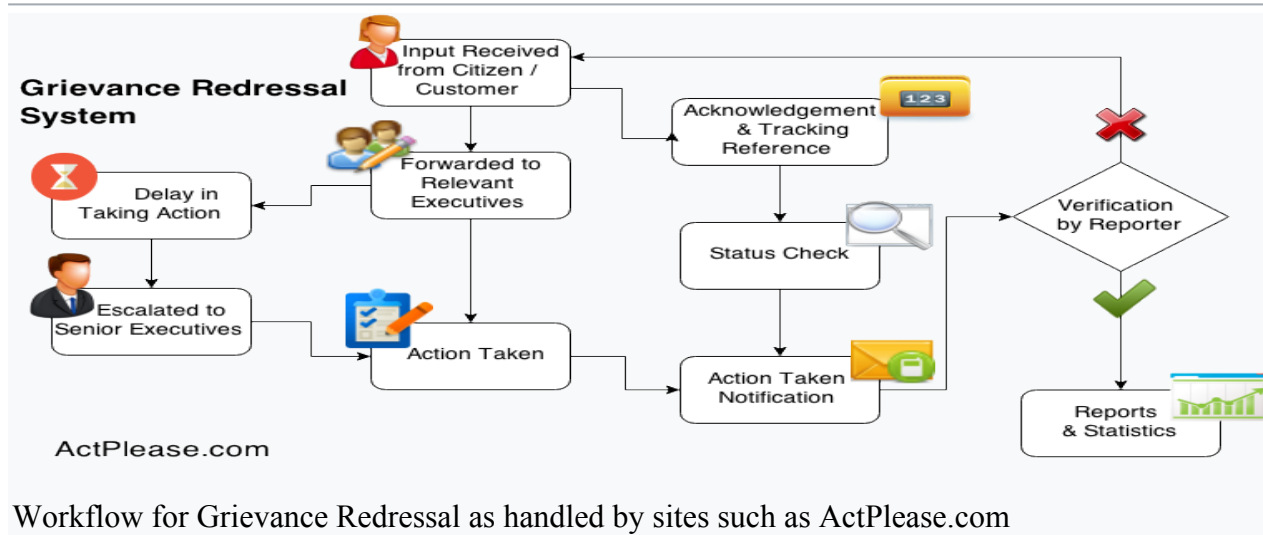
- Service Unavailability
- Non-Delivery against Commitment
- Excessive Delays
- Injustice concerns (such as over race, caste, sex)
- Staff Misbehaviour
- Malpractice

Wider definition of grievance redressal covers:

- Malfunctions under Warranty coverage
- Product Support issues

- Citizen Vigilance reports
- Employee Disputes

Process



Workflow for Grievance Redressal as handled by sites such as ActPlease.com

Organizations define their own process flows for grievance redressal. These are rarely made known to the public in case of private businesses; governments and non-profits usually share voluntarily or by mandate the hierarchy of officers responsible for taking corrective action. Some organizations maintain a custom-developed ticketing software, while others count on SaaS Portals such as ActPlease.com. Feedback Portals such as TripAdvisor and Yelp are driven by consumers, and organizations / businesses have the option to join and participate. Depending on the desire to correct as well as level of transparency of the organization, grievance redressal flow can include the following steps:

Input acceptance

Customers convey their grievance to the organization through feedback forms, letters, registered communications, emails, etc. These inputs may be submitted by mail, over the Internet, or in person.

Anonymity

Customers are often reluctant to report grievances that target individual executives of the organization, especially those who may influence their future interactions or have the potential to take vengeance. Under such conditions, the organization needs to assure the customer that her identity will be hidden from executives, and preferably from everyone. This, however, opens the potential problem of deceitful negative inputs purposefully targeted against specific executives, as the people reporting are kept anonymous.

Spam Prevention

Feedback forms on website are prone to spam submissions. There are cases when employees themselves submit feedback - positive for their professional gain, and negative if targeting colleagues. Some service centers make employees sign blank feedback forms to create positive statistics. Such situations can be prevented by seeking verification of identity of customers. This is especially possible on online setups, such as ActPlease.com, which uses SMS to verify the authenticity of the mobile number of reporter. Basic tools such as Captcha can prevent automatic spammers. Mass submission of false feedback becomes less likely and easy to detect in case of paper-based submission.

Acknowledgement & Status Tracking

Customers tend to develop much greater confidence in the grievance and feedback mechanism if they are given a formal acknowledgement. The acknowledgement could be by

SMS and Email, as used by ActPlease.com, or simply by publicly posting their message on the appropriate forum, such as TripAdvisor. Ticketing Systems such as osTicket and Fresh Desk, as well as SaaS systems such as ActPlease respond with acknowledgements with unique tracking numbers. These may be used by customers to check status of action taken on their complaint.

Forwarding

Paper-based feedback as well as standard feedback forms on websites usually forward inputs to a single officer or email address. This naturally causes scope for delay or failure to reach the right persons. However, smarter ticketing systems sort grievances based on their classification, and then redirect each to their relevant executive(s) instantly.

Escalation

Smart Grievance Portals such as ActPlease expect organizations to configure typical action time for each type of complaint, as well as set up the hierarchy for escalation. When an executive fails to take corrective action in time, the matter is promoted to the officer next in line in seniority.

Action

Computerized and web-based systems have an advantage over paper-based systems as they can alert the reporter immediately upon completion of action, as marked by the executive in charge.

Verification

Customer may certify, if applicable and asked, whether the corrective action taken on their grievance satisfies them or is not substantial enough. Should it not be, the complaint may be marked as pending again, or be forwarded to a more senior officer in escalated form.

Measurements

The effectiveness of implementation of a grievance redressal mechanism can be calculated with the following parameters:

- Count of cases received
- Nature of cases received
- Acceptance of anonymous feedback
- Ratio of false inputs
- Time taken for corrective action
- Escalations required
- Confirmations & rejections after completion
- Repeat nature of grievances

Challenges

Traditional Grievance Redressal mechanisms tend to fail, or are very ineffective, on account of some of these causes:

- **Unavailability** or **Difficulty to access** means to report grievances, at times done so purposefully, or due to lack of priority
- **Lack of authority** of PRO over relevant departments and executives in Government organizations
- **Disconnect** of senior decision-maker executives with end customers
- **Non-motivation** of front-end managers to forward negative feedback to higher-ups
- **Fear** of citizens / consumers to report malpractice about officers with substantial authority
- **Inability** of smaller private organizations to set up computerized mechanisms
- **Inaccuracy** and **spamming** of feedback forms, driving false impressions

- **Delayed feedback acceptance**, as feedback is taken after service has been provided, while corrective action may be taken typically during the delivery of service

Grievance Redressal Options available to Organizations

Paper-based Feedback Forms

These are most popular and usually used by consumer service businesses, such as hotels and restaurants. They are less likely to be effective, as there is reduced assurance of their reaching the decision-making authorities. These also usually do not give any formal confirmation or tracking number to the complainant. Possibility of fake submissions also remains. Customers therefore have less confidence on such forms. Confidence can be strengthened if a central call center sends an acknowledgement of receipt of such feedback. Another possible reinforcement may be done by taking digitized input, which can be processed using scantron machines.

Contact Us Links

Websites of organizations generally carry the **Contact Us** page, which lists the email and phone numbers to use to submit any concerns. Many websites also provide a form to fill that automatically gets sent by email, with confirmation to the reporter.

Customer-driven Feedback Websites

Websites such as Yelp and TripAdvisor allow customers to post grievances and recommendations about organizations from personal experience. Designated representatives of these organizations have the option to respond to such communications, though these responses are often just standard text. The feedback also tends to be subjective and unlikely to be auto-sorted and forwarded for action.

Organization-oriented Portals

Organizations can subscribe to grievance redressal portals such as ActPlease.com to invite their customers to report their grievances and request action. As such portals are configured by the organizations themselves, they can ensure that complaints are directed properly. ActPlease, being a third party site, handles anonymity of the reporter from the organization when necessary, while ensuring the genuine nature of the person, through SMS verification. Such SaaS Portals are easy to use and easily affordable for all organizations including SMEs, while empowering them with the latest tools such as Mobile Apps and Customized Websites.

Custom-developed Ticketing Systems

Large organizations involved in customer service set up their own ticketing systems with similar features as the SaaS portals, but with greater customization in the processing of grievances. Examples of such organizations are Bharat Sanchar Nigam Limited and Torrent Power. Large-scale ERP software, such as SAP and Genie also provide facility for setting up ticketed grievance redressal and customer support systems.

5.1 Convertible debentures Convertible debentures in India, for practical purposes, are of relatively recent origin. Yet during this short period the features of these debentures have undergone significant changes. In the early eighties when they became prominent for the first time they were typically compulsorily convertible (partially or fully) at a stated conversion price on a predetermined date. The terms of such debentures were fixed by the Controller of Capital Issues. Towards the end of eighties, more particularly in 1989, a strange aberration occurred. In that year several convertible debenture issues were made which had the following features: (i) they were compulsorily convertible (fully or partially) in one or more stages, (ii) the conversion price was left open to be determined later by the Controller of Capital Issues, and (iii) the issuer was given some latitude for determining the timing of conversion. All the details about conversion terms, namely, conversion ratio, conversion premium/price and conversion timing are specified in the offer document/prospectus. The companies can issue fully convertible debentures (FCDs) or partly convertible debentures (PCDs). The number of ordinary shares for each convertible debenture is the conversion ratio. The conversion price is the price paid for the ordinary share at the time of conversion. Thus, conversion ratio equals par value of convertible debentures divided by the conversion price. The conversion time refers to the period from the date of allotment of convertible debentures after which the option to convert can be exercised. If the conversion is to take place between 18-36 months, the holder will have the option to exercise his rights in full or part. A conversion period exceeding 36 months is not permitted without put and call options. The call options give the issuer the right to redeem the debentures/bonds prematurely on stated terms. The investor has the right to prematurely sell them back to the issuer on specified terms. In addition, compulsory credit rating is necessary for fully convertible debentures. With the repeal of the Capital Issues Control Act and the enactment of SEBI Act in 1992, the rules of the game applicable to convertible debentures have changed. As per SEBI guidelines, the provisions applicable to fully convertible debentures (FCDs) and partially convertible debentures (PCDs) are as follows:

- The conversion premium and the conversion timing shall be determined and stated in the prospectus.
- Any conversion, partial or full, will be optional at the hands of the debenture holder, if the conversion takes place at or after 18 months but before 36 months from the date of allotment
- A conversion period of more than 36 months will not be permitted unless conversion is made optional with put and call options.
- Compulsory credit rating will be required if the conversion period of fully convertible debentures exceeds 18 months.
- From the SEBI guidelines it is clear that convertible debentures in India presently can be of three types:
 - (a) Compulsorily convertible debentures which provide for conversion within 18 months
 - (b) Optionally convertible debentures which provide for conversion within 36 months.
 - (c) Debentures which provide for conversion after 36 months but which carry call and put features.

5.4.1 Valuation of convertible debentures Internationally, convertible debentures are convertible into equity shares at the option of the debenture holders. In India, in addition to such debentures, companies also issue debentures which are compulsorily convertible (partly or wholly) into

equity shares. For example, in June 1989, Tata Iron and Steel Company (TISCO) offered 3 lakh partly convertible debentures of Rs. 1200 each at par. The principal terms of these partly convertible debentures were as follows:

(i) compulsory conversion of Rs. 600 par value into an equity share of Rs. 100 at a premium of Rs. 500 on February 1, 1990,

(ii) interest rate of 12 per cent per annum payable half yearly, and

(iii) redemption of the non-convertible portion at the end of 8 years. Compulsory partly/fully convertible debentures What is the value of a partly convertible debenture like the one issued by TISCO? The holder of such a debenture receives (i) interest at a certain rate over the life of the debenture,

(ii) equity share/s on part conversion, and

(iii) principal repayment relating to the unconverted amount. Hence the value of such a debenture may be expressed as follows:

$$V_0 = \frac{I}{k} \left[\frac{1 - (1+k)^{-n}}{k} \right] + \frac{F}{1+k} + \frac{a}{1+k} \left[\frac{1 - (1+k)^{-n}}{k} \right]$$
where, V_0 = Value of the convertible debenture at the time of issue
 I = Interest receivable at the end of period, n = Term of debentures
 a = Equity shares on part conversion at the end of period, P_i = Expected pre-equity share price at the end of period, F_j = Instalment of principal payment at the end of period, k_d = Required rate of return on debt
 k_e = Required rate of return on equity

Example 5.2: The Tata Iron and Steel Ltd (TISCO) had offered in June 1989, Rs. 30 lakh partly convertible debentures of Rs. 1,200 each at par. The conversion terms were: (i) compulsory conversion of Rs. 600 par value into an equity share of Rs. 100 at a premium of Rs. 500 within six months of the date of allotment, that is, on February 1, 1990. (ii) 12 per cent per annum interest payable half yearly and (iii) redemption of non-convertible portion of the debentures at the end of 8 years. It had also simultaneously issued 32, 54, 167, 12 per cent FCDs of Rs. 600 each at par on rights basis to the existing shareholders. Each debenture was fully convertible into one share of Rs. 600, that is, Rs. 100 par plus a premium of Rs. 500 within six months from the date of allotment of debentures. Assuming 8 and 10 per cent as the half-yearly required rate of return on debt and equity respectively, find the value of a TISCO convertible debenture at the time of issue.

Solution Value of the PCD = $\frac{12}{100} \left[\frac{1 - (1.08)^{-16}}{0.08} \right] + \frac{1,200}{1.08} + \frac{36}{1.08} \left[\frac{1 - (1.08)^{-16}}{0.08} \right]$
 $= 16.16 + 1,111.11 + 360.72 = Rs 1,618.14$

Cost: The cost of partly convertible debenture (k_c) is given as $\frac{I}{k_c} \left[\frac{1 - (1+k_c)^{-n}}{k_c} \right] + \frac{F}{1+k_c} + \frac{a}{1+k_c} \left[\frac{1 - (1+k_c)^{-n}}{k_c} \right] = S_0$
where, S_0 = net subscription price of debentures at the time of issue
 I = interest payable at the end of period, T = tax rate
 a = number of equity shares offered on the occurrence of conversion at the end of period, P_i = per equity share price at the end of period
 b = proportion of net realizable proportion of P_i on the equity share issues to the public
 F_j = principal repayment instalment at the end of period, k_c = cost of capital/discount rate

For the TISCO convertible issue as detailed in Example 2, assuming further issue expenses, Rs 80, 35 per cent tax rate and 75 per cent as the net realizable proportion of equity shares issued to public, the cost of capital (convertible debenture) on a semi-annual basis is the discount rate by solving the following equation:

$\frac{12}{100} \left[\frac{1 - (1+k_c)^{-16}}{k_c} \right] + \frac{1,200}{1+k_c} + \frac{36}{1+k_c} \left[\frac{1 - (1+k_c)^{-16}}{k_c} \right] = 1,120$

The value of a debenture depends upon three factors:

(i) straight debenture value, (ii) conversion value and (iii) option value. Straight debenture value (SDV) equals the discounted value of the receivable interest and principal repayment, if retained as a straight debt instrument. The discount factor would depend upon the credit rating of the debenture. Symbolically $SDV = \sum_{t=1}^n \frac{I}{(1+d)^t} + \frac{P}{(1+d)^n}$ Where, Maturity period = 8 years, discount factor = 0.16, interest = 0.12 payable annually and face value of debenture = Rs. 100.

Conversion value (CV): if the holders opt for conversion, is equal to the share price multiplied by the conversion ratio, that is, the number of equity share offered for each debenture. If the price of share is, Rs. 50 and one debenture is convertible into 5 shares (conversion ratio = 5), the CV = Rs. 250 (Rs. 50 × 5). The value of a convertible debenture cannot be less than the SDV and CV which, in a sense, represent its two floor values. In other words, the value of convertible debenture would be the higher of the SDV and CV.

Option value (OV): The investors have an option, that is, they may not exercise the right/exercise the right at a time of their choosing and select the most profitable alternative. Thus, the option has value in the sense that the value of debenture will be higher than the floor values. Therefore, the value of the convertible debentures = Max [SDV, CV] + OV.

5.4.2 Evaluation of convertible debentures:

Convertible debentures have emerged as fairly popular instruments of long-term finance in India in recent years. In the first place, they improve cash flow matching of firms. With the invariably lower initial interest burden, a growing/expanding firm would be in a better position to service the debt/debenture. Subsequently, when it would do well, it can afford the servicing of the financing instrument after conversion. Secondly, they generate financial synergy. The assessment of risk characteristics of a new firm is costly and difficult. Convertible debentures provide a measure of protection against error of risk assessment. They have two components: straight debentures and call option. In case the firm turns out risky, the former will have a low value while the latter will have a high value and vice versa if the firm turns out to be relatively risk free. As a result, the required yield will not be very sensitive to default risk. In other words, firms with widely varying risks can issue convertible debentures on similar terms whereas the cost for straight debentures would be substantially different. Thus, convertible debentures offer a combination/financial synergy/risk synergy to companies to obtain capital on more favourable terms. Finally, convertible debentures can mitigate agency problems associated with financing arising out of conflicting demand of equity-holders and debenture holders/lenders. The focus of the latter is on minimizing default risk whereas the former would like the firm to undertake high risk projects. This conflict can be resolved by the issue of convertible debentures. The debenture-holders would not impose highly restrictive covenants to protect the interest and firms can undertake profitable investment opportunities.

Internal sources for financing innovation

Internal sources of finance are critical for firms' innovation activities. This includes notably retained earnings, the profits accumulated over time which have not been returned to shareholders. Firms often use internal financing rather than external financing.

Several factors shape firms' decisions to allocate their own resources to financing innovation:

- Sources as diverse as money and capital provided by family and friends to start a business as well as entrepreneurs' personal financial resources can be important resources for innovative entrepreneurs (see Private sources of funding). Private sources of funding are often essential for start-ups since information asymmetries often render access to finance on markets difficult. They can help entrepreneurs obtain debt financing, along with funding from venture capital and business angels. Public policy can play a role by establishing bankruptcy regulations so that innovative entrepreneurs will be more willing to invest in innovative businesses.
- Large firms with multiple divisions can fund their innovation investments in one division, even if a new one, with retained earnings from other divisions. In this case, corporate headquarters allocate scarce funding across different divisions in an internal capital market, using a variety of mechanisms to select what competing projects to fund. The importance given to innovation activities will be particularly critical in this context (see Resource allocation mechanisms within firms).
- The separation of ownership and control can also lead firms to display short-terminist behaviour. This is a concern in particular for companies that are listed in the stock market and have a diversified shareholder base. For a variety of reasons stock market prices may fail to accurately reflect firms' investments in innovation (among others) and the returns that they are expected to generate in the long term. As a result, myopic behaviour by financial intermediaries can sometimes punish management teams that heavily invest in innovation activities, since investors observe lower profits today but fail to appreciate the higher long-term profitability that is expected. There is an on-going debate on whether private equity is a good alternative to focus managers' attention on long-term profitability. While it might insulate managers from having to satisfy market expectations, it might lead to prioritize medium-term profitability (see Long-term and short-term profit objectives).
- Moreover, the competitive environment can impact how many internal resources are available for innovation. Firms can recoup the fixed cost of investing in innovation by selling the resulting product at a price that is higher than the marginal cost of producing it. Firms use a variety of strategies to sustain this mark-up, such as using intellectual property (e.g., patent the invention), first-mover advantage (e.g., build a large consumer base) or secrecy. However, these strategies are not always successful in practice, so if markets are very competitive it can be difficult to sustain a mark-up to cover the costs of the innovation process. This is why there is some research suggesting that there is an inverse-U-shaped relationship between competition and innovation. Without competition there is very little pressure to innovate, but with too much competition investors may be reluctant to fund innovative activity if they fear that even if successful it will be difficult to capture the benefits of this success (see Competitive environment and resources for innovation).

Finally, while having access to internal resources facilitates investment in innovation by avoiding many of the challenges that arise for firms as they seek external sources of finance, it also makes it easier to undertake potentially unproductive investments. Not being required to convince external providers of finance gives managers the freedom to use their firms' retained earnings with high discretionality. This can be good if it leads to profitable investment that would not happen otherwise, but bad if CEOs spend these funds on activities that are beneficial to them rather than to maximize long-term shareholder value.

External sources for financing Innovation

External sources of finance are critical for firms' innovation as firms typically lack internal sources (e.g. retained earnings and profits) for financing their innovation projects. They critically depend on how financial markets operate and on the rewards they provide to innovators (see Markets and rewards for innovation).

External sources for financing innovation include:

- Debt financing, which refers to opportunities for firms to secure public and private credit to start and develop their businesses (i.e. loans from banks and public institutions), is used as one of the most common tools for access to finance.
- Stock market financing, which refers to raising capital by issuing shares or common stock in stock markets can also be used to obtain financing. Yet, it may be of limited relevance for financing innovation whose outcome is uncertain and for innovative new venture, which often have, at least initially, negative cash flows, untried business models and uncertain prospects of success.
- Business angels: wealthy individual investors, typically with business experience, who act as a source of equity and provide start-up capital (as well as expertise and access to networks) to smaller firms in exchange for either convertible debt or equity. In recent times, business angels are establishing networks in order to better link firms with investors. Business angels attempt to identify firms which seem promising but lack the necessary funds to implement innovative strategies. As a result, angel investors play a key role in providing finance to younger firms.
- Venture capital: venture capital funds can be defined as pool of capital which is managed professionally and is invested in private ventures using preferred stock or similar instruments. Venture capital funds have developed significant expertise on how to undertake due diligence for high-risk innovative firms as well as how to structure the contracts and stage the funding provided in order to reduce the impact of informational asymmetries.
- Other types of finance, such as subsidies and grants from governments and international organizations can also be critical given innovative businesses' limited access to financial markets.

What is an 'Asset-Backed Security - ABS'

An asset-backed security (ABS) is a financial security collateralized by a pool of assets such as loans, leases, credit card debt, royalties or receivables. For investors, asset-backed securities are an alternative to investing in corporate debt. An ABS is similar to a mortgage-backed security, except that the underlying securities are not mortgage-based.

BREAKING DOWN 'Asset-Backed Security - ABS'

Asset-backed securities allow issuers to generate more cash, which, in turn, is used for more lending while giving investors the opportunity to invest in a wide variety of income-generating assets. Usually, the underlying assets of an ABS are illiquid and can't be sold on their own. But pooling the assets together and creating a financial security, a process called securitization, enables the owner of the assets to make them marketable. The underlying assets of these pools may be home equity loans, automobile loans, credit card receivables, student loans or other expected cash flows. Issuers of ABS can be as creative as they desire. For example, ABS have been created based on cash flows from movie revenues, royalty payments, aircraft leases and solar photovoltaics. Just about any cash-producing situation can be securitized into an ABS.

Example of Asset-Backed Security

Assume that Company X is in the business of making automobile loans. If a person wants to borrow money to buy a car, Company X gives that person the cash, and the person is obligated to repay the loan with a certain amount of interest. Perhaps Company X makes so many loans that it runs out of cash to continue making more loans. Company X can then package its current loans and sell them to Investment Firm X, thus receiving cash that it can use to make more loans. Investment Firm X will then sort the purchased loans into different groups called tranches. These tranches are groups of loans with similar characteristics, such as maturity, interest rate and expected delinquency rate. Next, Investment Firm X will issue securities that are similar to typical bonds on each tranche it creates.

Individual investors then purchase these securities and receive the cash-flows from the underlying pool of auto loans, minus an administrative fee that Investment Firm X keeps for itself.

Typical Tranches

Usually an ABS will have three tranches: class A, B and C. The senior tranche, A, is almost always the largest tranche and is structured to have an investment-grade rating to make it attractive to investors.

The B tranche has lower credit quality and thus has a higher yield than the senior tranche. The C tranche has a lower credit rating than the B tranche and might have such poor credit quality that it can't be sold to investors. In this case, the issuer would keep the C tranche and absorb the losses.

OPTION

In finance, an **option** is a contract which gives the buyer (the owner or holder of the option) the right, but not the obligation, to buy or sell an underlying asset or instrument at a specified strike price on a specified date, depending on the form of the option. The strike price may be set by reference to the spot price (market price) of the underlying security or commodity on the day an option is taken out, or it may be fixed at a discount or at a premium. The seller has the corresponding obligation to fulfill the transaction – to sell or buy – if the buyer (owner) "exercises" the option. An option that conveys to the owner the right to buy at a specific price is referred to as a call; an option that conveys the right of the owner to sell at a specific price is referred to as a put. Both are commonly traded, but the call option is more frequently discussed.

The seller may grant an option to a buyer as part of another transaction, such as a share issue or as part of an employee incentive scheme, otherwise a buyer would pay a premium to the seller for the option. A call option would normally be exercised only when the strike price is below the market value of the underlying asset, while a put option would normally be exercised only when the strike price is above the market value. When an option is exercised, the cost to the buyer of the asset acquired is the strike price plus the premium, if any. When the option expiration date passes without the option being exercised, then the option expires and the buyer would forfeit the premium to the seller. In any case, the premium is income to the seller, and normally a capital loss to the buyer.

The owner of an option may on-sell the option to a third party in a secondary market, in either an over-the-counter transaction or on an options exchange, depending on the option. The market price of an American-style option normally closely follows that of the underlying stock, being the difference between the market price of the stock and the strike price of the option. The actual market price of the option may vary depending on a number of factors, such as a significant option holder may need to sell the option as the expiry date is approaching and does not have the financial resources to exercise the option, or a buyer in the market is trying to amass a large option holding. The ownership of an option does not generally entitle the holder to any rights associated with the underlying asset, such as voting rights or any income from the underlying asset, such as a dividend.

Historical uses of options

Contracts similar to options have been used since ancient times. The first reputed option buyer was the ancient Greek mathematician and philosopher Thales of Miletus. On a certain occasion, it was predicted that the season's olive harvest would be larger than usual, and during the off-season, he acquired the right to use a number of olive presses the following spring. When spring came and the olive harvest was larger than expected he exercised his options and then rented the presses out at a much higher price than he paid for his 'option'.

In London, puts and "refusals" (calls) first became well-known trading instruments in the 1690s during the reign of William and Mary. Privileges were options sold over the counter in

nineteenth century America, with both puts and calls on shares offered by specialized dealers. Their exercise price was fixed at a rounded-off market price on the day or week that the option was bought, and the expiry date was generally three months after purchase. They were not traded in secondary markets.

In the real estate market, call options have long been used to assemble large parcels of land from separate owners; e.g., a developer pays for the right to buy several adjacent plots, but is not obligated to buy these plots and might not unless he can buy all the plots in the entire parcel. Film or theatrical producers often buy the right — but not the obligation — to dramatize a specific book or script.

Lines of credit give the potential borrower the right — but not the obligation — to borrow within a specified time period.

Many choices, or embedded options, have traditionally been included in bond contracts. For example, many bonds are convertible into common stock at the buyer's option, or may be called (bought back) at specified prices at the issuer's option. Mortgage borrowers have long had the option to repay the loan early, which corresponds to a callable bond option.

Modern stock option

Options contracts have been known for decades. The Chicago Board Options Exchange was established in 1973, which set up a regime using standardized forms and terms and trade through a guaranteed clearing house. Trading activity and academic interest has increased since then.

Today, many options are created in a standardized form and traded through clearing houses on regulated options exchanges, while other over-the-counter options are written as bilateral, customized contracts between a single buyer and seller, one or both of which may be a dealer or market-maker. Options are part of a larger class of financial instruments known as derivative products, or simply, derivatives.

Contract specifications

A financial option is a contract between two counterparties with the terms of the option specified in a term sheet. Option contracts may be quite complicated; however, at minimum, they usually contain the following specifications

-
- whether the option holder has the right to buy (a call option) or the right to sell (a put option)
 - the quantity and class of the underlying asset(s) (e.g., 100 shares of XYZ Co. B stock)
 - the strike price, also known as the exercise price, which is the price at which the underlying transaction will occur upon exercise
 - the expiration date, or expiry, which is the last date the option can be exercised
 - the settlement terms, for instance whether the writer must deliver the actual asset on exercise, or may simply tender the equivalent cash amount
 - the terms by which the option is quoted in the market to convert the quoted price into the actual premium – the total amount paid by the holder to the writer

Option trading

Forms of trading

Exchange-traded options

Exchange-traded options (also called "listed options") are a class of exchange-traded derivatives. Exchange-traded options have standardized contracts, and are settled through a clearing house with fulfillment guaranteed by the Options Clearing Corporation (OCC). Since the contracts are standardized, accurate pricing models are often available. Exchange-traded options include:

- Stock options

- Bond options and other interest rate options
- Stock market index options or, simply, index options and
- Options on futures contracts
- Callable bull/bear contract

Over-the-counter options

Over-the-counter options (OTC options, also called "dealer options") are traded between two private parties, and are not listed on an exchange. The terms of an OTC option are unrestricted and may be individually tailored to meet any business need. In general, the option writer is a well-capitalized institution (in order to prevent the credit risk). Option types commonly traded over the counter include:

- Interest rate options
- Currency cross rate options, and
- Options on swaps or swaptions.

By avoiding an exchange, users of OTC options can narrowly tailor the terms of the option contract to suit individual business requirements. In addition, OTC option transactions generally do not need to be advertised to the market and face little or no regulatory requirements. However, OTC counterparties must establish credit lines with each other, and conform to each other's clearing and settlement procedures.

With few exceptions, there are no secondary markets for employee stock options. These must either be exercised by the original grantee or allowed to expire.

Exchange trading

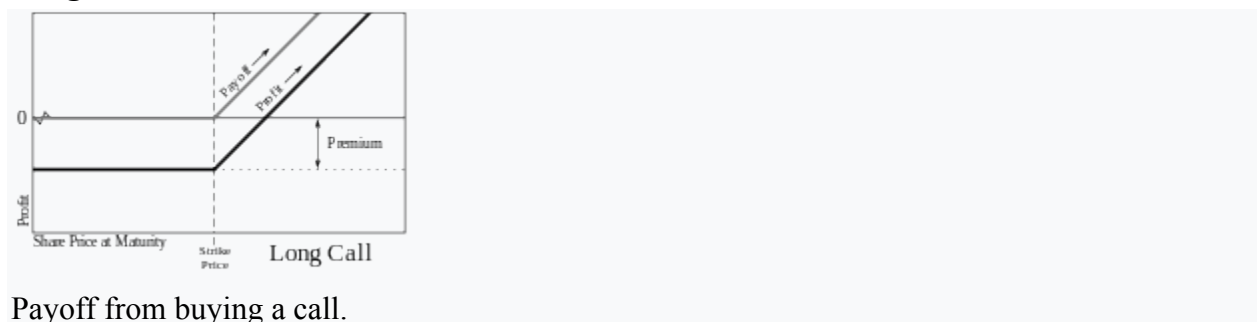
The most common way to trade options is via standardized options contracts that are listed by various futures and options exchanges. Listings and prices are tracked and can be looked up by ticker symbol. By publishing continuous, live markets for option prices, an exchange enables independent parties to engage in price discovery and execute transactions. As an intermediary to both sides of the transaction, the benefits the exchange provides to the transaction include:

- Fulfillment of the contract is backed by the credit of the exchange, which typically has the highest rating (AAA),
- Counterparties remain anonymous,
- Enforcement of market regulation to ensure fairness and transparency, and
- Maintenance of orderly markets, especially during fast trading conditions.

Basic trades (American style)

These trades are described from the point of view of a speculator. If they are combined with other positions, they can also be used in hedging. An option contract in US markets usually represents 100 shares of the underlying security.

Long call



Payoff from buying a call.

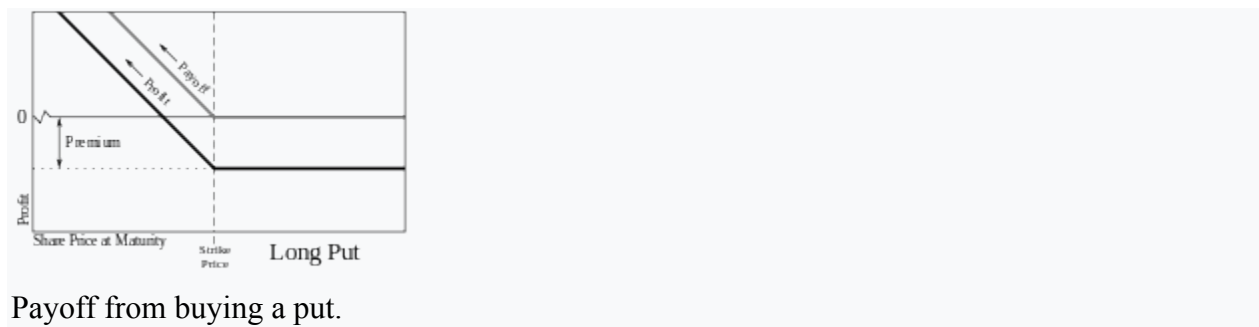
A trader who expects a stock's price to increase can buy a call option to purchase the stock at a fixed price ("strike price") at a later date, rather than purchase the stock outright. The cash outlay on the option is the premium. The trader would have no obligation to buy the stock,

but only has the right to do so at or before the expiration date. The risk of loss would be limited to the premium paid, unlike the possible loss had the stock been bought outright.

The holder of an American-style call option can sell his option holding at any time until the expiration date, and would consider doing so when the stock's spot price is above the exercise price, especially if he expects the price of the option to drop. By selling the option early in that situation, the trader can realise an immediate profit. Alternatively, he can exercise the option — for example, if there is no secondary market for the options — and then sell the stock, realising a profit. A trader would make a profit if the spot price of the shares rises by more than the premium. For example, if the exercise price is 100 and premium paid is 10, then if the spot price of 100 rises to only 110 the transaction is break-even; an increase in stock price above 110 produces a profit.

If the stock price at expiration is lower than the exercise price, the holder of the options at that time will let the call contract expire and only lose the premium (or the price paid on transfer).

Long put



A trader who expects a stock's price to decrease can buy a put option to sell the stock at a fixed price ("strike price") at a later date. The trader will be under no obligation to sell the stock, but only has the right to do so at or before the expiration date. If the stock price at expiration is below the exercise price by more than the premium paid, he will make a profit. If the stock price at expiration is above the exercise price, he will let the put contract expire and only lose the premium paid. In the transaction, the premium also plays a major role as it enhances the break-even point. For example, if exercise price is 100, premium paid is 10, then a spot price of 100 to 90 is not profitable. He would make a profit if the spot price is below 90.

It is important to note that one who exercises a put option, does not necessarily need to own the underlying asset. Specifically, one does not need to own the underlying stock in order to sell it. The reason for this is that one can short sell that underlying stock.

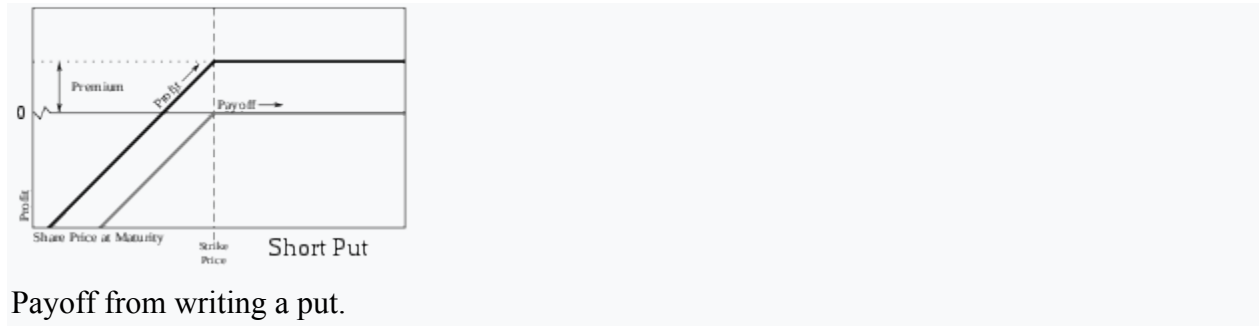
SHORT CALL



A trader who expects a stock's price to decrease can sell the stock short or instead sell, or "write", a call. The trader selling a call has an obligation to sell the stock to the call buyer at a fixed price ("strike price"). If the seller does not own the stock when the option is exercised, he is obligated to purchase the stock from the market at the then market price. If the stock price decreases, the seller of the call (call writer) will make a profit in the amount of the premium. If

the stock price increases over the strike price by more than the amount of the premium, the seller will lose money, with the potential loss being unlimited.

Short put

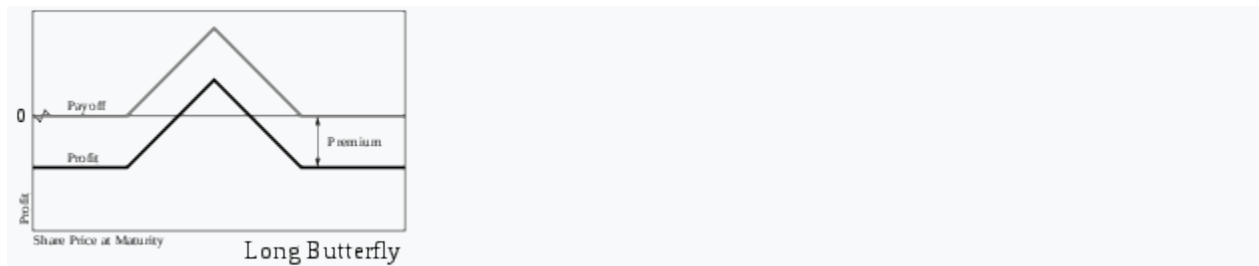


Payoff from writing a put.

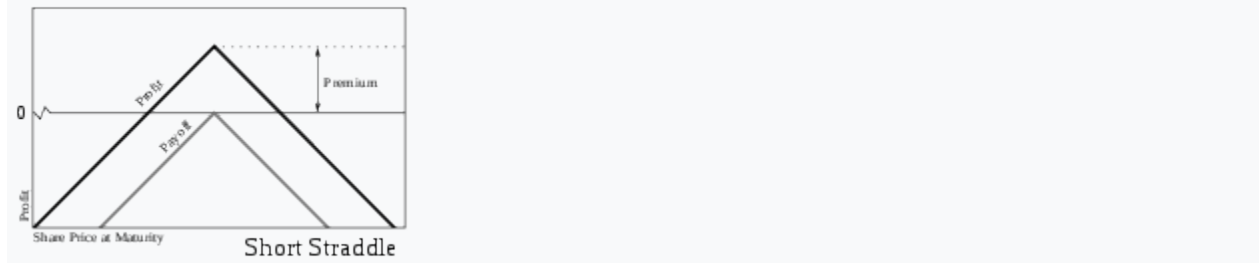
A trader who expects a stock's price to increase can buy the stock or instead sell, or "write", a put. The trader selling a put has an obligation to buy the stock from the put buyer at a fixed price ("strike price"). If the stock price at expiration is above the strike price, the seller of the put (put writer) will make a profit in the amount of the premium. If the stock price at expiration is below the strike price by more than the amount of the premium, the trader will lose money, with the potential loss being up to the strike price minus the premium. A benchmark index for the performance of a cash-secured short put option position is the CBOE S&P 500 PutWrite Index (ticker PUT).

Option strategies

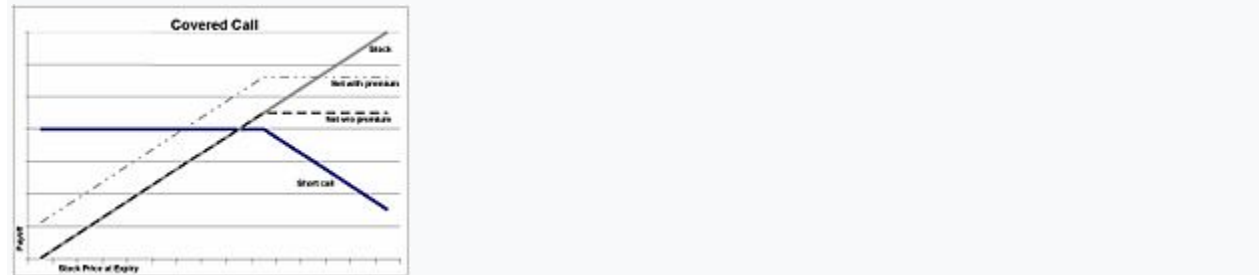
Main article: Option strategies



Payoffs from buying a butterfly spread.



Payoffs from selling a straddle.



Payoffs from a covered call.

Combining any of the four basic kinds of option trades (possibly with different exercise prices and maturities) and the two basic kinds of stock trades (long and short) allows a variety

of options strategies. Simple strategies usually combine only a few trades, while more complicated strategies can combine several.

Strategies are often used to engineer a particular risk profile to movements in the underlying security. For example, buying a butterfly spread (long one X1 call, short two X2 calls, and long one X3 call) allows a trader to profit if the stock price on the expiration date is near the middle exercise price, X2, and does not expose the trader to a large loss.

An Iron condor is a strategy that is similar to a butterfly spread, but with different strikes for the short options – offering a larger likelihood of profit but with a lower net credit compared to the butterfly spread.

Selling a straddle (selling both a put and a call at the same exercise price) would give a trader a greater profit than a butterfly if the final stock price is near the exercise price, but might result in a large loss.

Similar to the straddle is the strangle which is also constructed by a call and a put, but whose strikes are different, reducing the net debit of the trade, but also reducing the risk of loss in the trade.

One well-known strategy is the covered call, in which a trader buys a stock (or holds a previously-purchased long stock position), and sells a call. If the stock price rises above the exercise price, the call will be exercised and the trader will get a fixed profit. If the stock price falls, the call will not be exercised, and any loss incurred to the trader will be partially offset by the premium received from selling the call. Overall, the payoffs match the payoffs from selling a put. This relationship is known as put-call parity and offers insights for financial theory. A benchmark index for the performance of a buy-write strategy is the CBOE S&P 500 BuyWrite Index (ticker symbol BXM).

Another very common strategy is the protective put, in which a trader buys a stock (or holds a previously-purchased long stock position), and buys a put. This strategy acts as an insurance when investing on the underlying stock, hedging the investor's potential losses, but also shrinking an otherwise larger profit, if just purchasing the stock without the put. The maximum profit of a protective put is theoretically unlimited as the strategy involves being long on the underlying stock. The maximum loss is limited to the purchase price of the underlying stock less the strike price of the put option and the premium paid. A protective put is also known as a married put.

Types

According to the option rights

- Call options give the holder the right—but not the obligation—to buy something at a specific price for a specific time period.
- Put options give the holder the right—but not the obligation—to sell something at a specific price for a specific time period.

According to the underlying assets

- Equity option
- Bond option
- Future option
- Index option
- Commodity option
- Currency option

Other option types

Another important class of options, particularly in the U.S., are employee stock options, which are awarded by a company to their employees as a form of incentive compensation. Other types of options exist in many financial contracts, for example real estate options are often used to assemble large parcels of land, and prepayment options are usually included in mortgage loans. However, many of the valuation and risk management principles apply across all financial options. There are two more types of options; covered and naked.^[14]

Option styles

Options are classified into a number of styles, the most common of which are:

- **American** option – an option that may be exercised on any trading day on or before expiration.
- **European** option – an option that may only be exercised on expiry.

These are often described as **vanilla** options. Other styles include:

- **Bermudan** option – an option that may be exercised only on specified dates on or before expiration.
- **Asian** option – an option whose payoff is determined by the average underlying price over some preset time period.
- **Barrier** option – any option with the general characteristic that the underlying security's price must pass a certain level or "barrier" before it can be exercised.
- **Binary** option – An all-or-nothing option that pays the full amount if the underlying security meets the defined condition on expiration otherwise it expires.
- **Exotic** option – any of a broad category of options that may include complex financial structures.

Valuation overview

Options valuation is a topic of ongoing research in academic and practical finance. In basic terms, the value of an option is commonly decomposed into two parts:

- The first part is the **intrinsic value**, which is defined as the difference between the market value of the underlying, and the strike price of the given, option
- The second part is the **time value**, which depends on a set of other factors which, through a multi-variable, non-linear interrelationship, reflect the discounted expected value of that difference at expiration.

Although options valuation has been studied at least since the nineteenth century, the contemporary approach is based on the Black–Scholes model which was first published in 1973.

Valuation models

The value of an option can be estimated using a variety of quantitative techniques based on the concept of risk neutral pricing and using stochastic calculus. The most basic model is the Black–Scholes model. More sophisticated models are used to model the volatility smile. These models are implemented using a variety of numerical techniques.^[18] In general, standard option valuation models depend on the following factors:

- The current market price of the underlying security,
- the strike price of the option, particularly in relation to the current market price of the underlying (in the money vs. out of the money),
- the cost of holding a position in the underlying security, including interest and dividends,
- the time to expiration together with any restrictions on when exercise may occur, and
- an estimate of the future volatility of the underlying security's price over the life of the option.

More advanced models can require additional factors, such as an estimate of how volatility changes over time and for various underlying price levels, or the dynamics of stochastic interest rates.

The following are some of the principal valuation techniques used in practice to evaluate option contracts.

Black–Scholes

Following early work by Louis Bachelier and later work by Robert C. Merton, Fischer Black and Myron Scholes made a major breakthrough by deriving a differential equation that must be satisfied by the price of any derivative dependent on a non-dividend-paying stock. By employing the technique of constructing a risk neutral portfolio that replicates the returns of holding an option, Black and Scholes produced a closed-form solution for a European option's theoretical price.^[19] At the same time, the model generates hedge parameters necessary for effective risk management of option holdings. While the ideas behind the Black–Scholes model were ground-breaking and eventually led to Scholes and Merton receiving the Swedish Central Bank's associated Prize for Achievement in Economics (a.k.a., the Nobel Prize in Economics),^[20] the application of the model in actual options trading is clumsy because of the assumptions of continuous trading, constant volatility, and a constant interest rate. Nevertheless, the Black–Scholes model is still one of the most important methods and foundations for the existing financial market in which the result is within the reasonable range.

Stochastic volatility models

Since the market crash of 1987, it has been observed that market implied volatility for options of lower strike prices are typically higher than for higher strike prices, suggesting that volatility is stochastic, varying both for time and for the price level of the underlying security. Stochastic volatility models have been developed including one developed by S.L. Heston. One principal advantage of the Heston model is that it can be solved in closed-form, while other stochastic volatility models require complex numerical methods.

Model implementation

Once a valuation model has been chosen, there are a number of different techniques used to take the mathematical models to implement the models.

Analytic techniques

In some cases, one can take the mathematical model and using analytical methods develop closed form solutions such as Black–Scholes and the Black model. The resulting solutions are readily computable, as are their "Greeks". Although the Roll-Geske-Whaley model applies to an American call with one dividend, for other cases of American options, closed form solutions are not available; approximations here include Barone-Adesi and Whaley, Bjerkstrand and Stensland and others.

Binomial tree pricing model

Closely following the derivation of Black and Scholes, John Cox, Stephen Ross and Mark Rubinstein developed the original version of the binomial options pricing model.^{[23][24]} It models the dynamics of the option's theoretical value for discrete time intervals over the option's life. The model starts with a binomial tree of discrete future possible underlying stock prices. By constructing a riskless portfolio of an option and stock (as in the Black–Scholes model) a simple formula can be used to find the option price at each node in the tree. This value can approximate the theoretical value produced by Black Scholes, to the desired degree of precision. However, the binomial model is considered more accurate than Black–Scholes because it is more flexible; e.g., discrete future dividend payments can be modeled correctly at the proper forward time steps, and American options can be modeled as well as European ones. Binomial models are widely used by professional option traders. The Trinomial tree is a similar model, allowing for an up, down or stable path; although considered more accurate, particularly

when fewer time-steps are modelled, it is less commonly used as its implementation is more complex. For a more general discussion, as well as for application to commodities, interest rates and hybrid instruments, see Lattice model (finance).

Monte Carlo models

For many classes of options, traditional valuation techniques are intractable because of the complexity of the instrument. In these cases, a Monte Carlo approach may often be useful. Rather than attempt to solve the differential equations of motion that describe the option's value in relation to the underlying security's price, a Monte Carlo model uses simulation to generate random price paths of the underlying asset, each of which results in a payoff for the option. The average of these payoffs can be discounted to yield an expectation value for the option.^[25] Note though, that despite its flexibility, using simulation for American styled options is somewhat more complex than for lattice based models.

Finite difference models

The equations used to model the option are often expressed as partial differential equations (see for example Black–Scholes equation). Once expressed in this form, a finite difference model can be derived, and the valuation obtained. A number of implementations of finite difference methods exist for option valuation, including: explicit finite difference, implicit finite difference and the Crank-Nicolson method. A trinomial tree option pricing model can be shown to be a simplified application of the explicit finite difference method. Although the finite difference approach is mathematically sophisticated, it is particularly useful where changes are assumed over time in model inputs – for example dividend yield, risk free rate, or volatility, or some combination of these – that are not tractable in closed form.

Other models

Other numerical implementations which have been used to value options include finite element methods. Additionally, various short rate models have been developed for the valuation of interest rate derivatives, bond options and swaptions. These, similarly, allow for closed-form, lattice-based, and simulation-based modelling, with corresponding advantages and considerations.

Risks

As with all securities, trading options entails the risk of the option's value changing over time. However, unlike traditional securities, the return from holding an option varies non-linearly with the value of the underlying and other factors. Therefore, the risks associated with holding options are more complicated to understand and predict.

In general, the change in the value of an option can be derived from Itô's lemma as:

where the Greeks and are the standard hedge parameters calculated from an option valuation model, such as Black–Scholes, and are unit changes in the underlying's price, the underlying's volatility and time, respectively.

Thus, at any point in time, one can estimate the risk inherent in holding an option by calculating its hedge parameters and then estimating the expected change in the model inputs, and provided the changes in these values are small. This technique can be used effectively to understand and manage the risks associated with standard options. For instance, by offsetting a holding in an option with the quantity of shares in the underlying, a trader can form a delta neutral portfolio that is hedged from loss for small changes in the underlying's price. The corresponding price sensitivity formula for this portfolio is:

Example

A call option expiring in 99 days on 100 shares of XYZ stock is struck at \$50, with XYZ currently trading at \$48. With future realized volatility over the life of the option estimated at 25%, the theoretical value of the option is \$1.89. The hedge parameters, are (0.439, 0.0631, 9.6, and -0.022), respectively. Assume that on the following day, XYZ stock rises to \$48.5 and

volatility falls to 23.5%. We can calculate the estimated value of the call option by applying the hedge parameters to the new model inputs as:

Under this scenario, the value of the option increases by \$0.0614 to \$1.9514, realizing a profit of \$6.14. Note that for a delta neutral portfolio, whereby the trader had also sold 44 shares of XYZ stock as a hedge, the net loss under the same scenario would be (\$15.86).

Pin risk

A special situation called pin risk can arise when the underlying closes at or very close to the option's strike value on the last day the option is traded prior to expiration. The option writer (seller) may not know with certainty whether or not the option will actually be exercised or be allowed to expire. Therefore, the option writer may end up with a large, unwanted residual position in the underlying when the markets open on the next trading day after expiration, regardless of his or her best efforts to avoid such a residual.

Counter party risk

A further, often ignored, risk in derivatives such as options is counterparty risk. In an option contract this risk is that the seller won't sell or buy the underlying asset as agreed. The risk can be minimized by using a financially strong intermediary able to make good on the trade, but in a major panic or crash the number of defaults can overwhelm even the strongest intermediaries.

WARRANT

In finance, a **warrant** is a security that entitles the holder to buy the underlying stock of the issuing company at a fixed price called **exercise price** until the expiry date.

Warrants and options are similar in that the two contractual financial instruments allow the holder special rights to buy securities. Both are discretionary and have expiration dates. The word warrant simply means to "endow with the right", which is only slightly different from the meaning of option.

Warrants are frequently attached to bonds or preferred stock as a sweetener, allowing the issuer to pay lower interest rates or dividends. They can be used to enhance the yield of the bond and make them more attractive to potential buyers. Warrants can also be used in private equity deals. Frequently, these warrants are detachable and can be sold independently of the bond or stock.

In the case of warrants issued with preferred stocks, stockholders may need to detach and sell the warrant before they can receive dividend payments. Thus, it is sometimes beneficial to detach and sell a warrant as soon as possible so the investor can earn dividends.

Warrants are actively traded in some financial markets such as German Stock Exchange (Deutsche Börse) and Hong Kong.^[1] In Hong Kong Stock Exchange, warrants accounted for 11.7% of the turnover in the first quarter of 2009, just second to the callable bull/bear contract.^[2]

Structure and features

Warrants have similar characteristics to that of other equity derivatives, such as options, for instance:

- **Exercising:** A warrant is exercised when the holder informs the issuer their intention to purchase the shares underlying the warrant.

The warrant parameters, such as exercise price, are fixed shortly after the issue of the bond. With warrants, it is important to consider the following main characteristics:

- **Premium:** A warrant's "premium" represents how much extra you have to pay for your shares when buying them through the warrant as compared to buying them in the regular way.
- **Gearing (leverage):** A warrant's "gearing" is the way to ascertain how much more exposure you have to the underlying shares using the warrant as compared to the exposure you would have if you buy shares through the market.

- **Expiration Date:** This is the date the warrant expires. If you plan on exercising the warrant, you must do so before the expiration date. The more time remaining until expiry, the more time for the underlying security to appreciate, which, in turn, will increase the price of the warrant (unless it depreciates). Therefore, the expiry date is the date on which the right to exercise ceases to exist.
- **Restrictions on exercise:** Like options, there are different exercise types associated with warrants such as American style (holder can exercise any time before expiration) or European style (holder can only exercise on expiration date).^[3]

Warrants are longer-dated options and are generally traded over-the-counter.

Secondary market

Sometimes the issuer will try to establish a market for the warrant and to register it with a listed exchange. In this case, the price can be obtained from a stockbroker. But often, warrants are privately held or not registered, which makes their prices less obvious. On the NYSE, warrants can be easily tracked by adding a "w" after the company's ticker symbol to check the warrant's price. Unregistered warrant transactions can still be facilitated between accredited parties and in fact, several secondary markets have been formed to provide liquidity for these investments.

Comparison with call options

Warrants are very similar to call options. For instance, many warrants confer the same rights as equity options and warrants often can be traded in secondary markets like options. However, there also are several key differences between warrants and equity options:

- Warrants are issued by private parties, typically the corporation on which a warrant is based, rather than a public options exchange.
- Warrants issued by the company itself are dilutive. When the warrant issued by the company is exercised, the company issues new shares of stock, so the number of outstanding shares increases. When a call option is exercised, the owner of the call option receives an existing share from an assigned call writer (except in the case of employee stock options, where new shares are created and issued by the company upon exercise). Unlike common stock shares outstanding, warrants do not have voting rights.
- Warrants are considered over the counter instruments and thus are usually only traded by financial institutions with the capacity to settle and clear these types of transactions.
- A warrant's lifetime is measured in years (as long as 15 years), while options are typically measured in months. Even LEAPS (long-term equity anticipation securities), the longest stock options available, tend to expire in two or three years. Upon expiration, the warrants are worthless unless the price of the common stock is greater than the exercise price.
- Warrants are not standardized like exchange-listed options. While investors can write stock options on the ASX (or CBOE), they are not permitted to do so with ASX-listed warrants, since only companies can issue warrants and, while each option contract is over 1000 underlying ordinary shares (100 on CBOE), the number of warrants that must be exercised by the holder to buy the underlying asset depends on the conversion ratio set out in the offer documentation for the warrant issue.

Traded warrants

- Traditional" warrant
- Covered warrant or Naked warrant
- Exotic warrants
- Hit-warrant
- Turbo warrant
- Snail warrant
- Third party warrants

Pricing

There are various methods (models) of evaluation available to value warrants theoretically, including the Black-Scholes evaluation model. However, it is important to have some understanding of the various influences on warrant prices. The market value of a warrant can be divided into two components:

- **Intrinsic value:** This is simply the difference between the exercise (strike) price and the underlying stock price. Warrants are also referred to as in-the-money or out-of-the-money, depending on where the current asset price is in relation to the warrant's exercise price. Thus, for instance, for call warrants, if the stock price is below the strike price, the warrant has no intrinsic value (only time value—to be explained shortly). If the stock price is above the strike, the warrant has intrinsic value and is said to be in-the-money.
- **Time value:** Time value can be considered as the value of the continuing exposure to the movement in the underlying security that the warrant provides. Time value declines as the expiry of the warrant gets closer. This erosion of time value is called time decay. It is not constant, but increases rapidly towards expiry. A warrant's time value is affected by the following factors:
 - **Time to expiry:** The longer the time to expiry, the greater the time value of the warrant. This is because the price of the underlying asset has a greater probability of moving in-the-money which makes the warrant more valuable.
 - **Volatility:** The more volatile the underlying instrument, the higher the price of the warrant will be (as the warrant is more likely to end up in-the-money).
 - **Dividends:** To include the factor of receiving dividends depends on if the holder of the warrant is permitted to receive dividends from the underlying asset.
 - **Interest rates:** An increase in interest rates will lead to more expensive call warrants and cheaper put warrants. The level of interest rates reflects the opportunity cost of capital.

Uses

- **Portfolio protection:** Put warrants allow the owner to protect the value of the owner's portfolio against falls in the market or in particular shares.
- **Low cost**
- **Leverage**

Risks

There are certain risks involved in trading warrants—including time decay. Time decay: "Time value" diminishes as time goes by—the rate of decay increases the closer to the date of expiration.

Types of warrants

A wide range of warrants and warrant types are available. The reasons you might invest in one type of warrant may be different from the reasons you might invest in another type of warrant.

- **Equity warrants:** Equity warrants can be call and put warrants.
- **Callable warrants:** Offer investors the right to buy shares of a company from that company at a specific price at a future date prior to expiration.
- **Puttable warrants:** Offer investors the right to sell shares of a company back to that company at a specific price at a future date prior to expiration.
- **Covered warrants:** A covered warrants is a warrant that has some underlying backing, for example the issuer will purchase the stock beforehand or will use other instruments to cover the option.
- **Basket warrants:** As with a regular equity index, warrants can be classified at, for example, an industry level. Thus, it mirrors the performance of the industry.

- Index warrants: Index warrants use an index as the underlying asset. Your risk is dispersed—using index call and index put warrants—just like with regular equity indexes. They are priced using index points. That is, you deal with cash, not directly with shares.
- Wedding warrants: are attached to the host debentures and can be exercised only if the host debentures are surrendered
- Detachable warrants: the warrant portion of the security can be detached from the debenture and traded separately.
- Naked warrants: are issued without an accompanying bond and, like traditional warrants, are traded on the stock exchange.
- Cash or Share Warrants in which the settlement may be in the form of either cash or physical delivery of the shares - depending on its status at expiry.

Traditional

Traditional warrants are issued in conjunction with a bond (known as a warrant-linked bond) and represent the right to acquire shares in the entity issuing the bond. In other words, the writer of a traditional warrant is also the issuer of the underlying instrument. Warrants are issued in this way as a "sweetener" to make the bond issue more attractive and to reduce the interest rate that must be offered in order to sell the bond issue.

Example

- Price paid for bond with warrants
- Coupon payments **C**
- Maturity **T**
- Required rate of return **r**
- Face value of bond **F**

Value of warrants =

Covered or Naked

Covered warrants, also known as Naked warrants, are issued without an accompanying bond and, like traditional warrants, are traded on the stock exchange. They are typically issued by banks and securities firms and are settled for cash, e.g. do not involve the company who issues the shares that underlie the warrant. In most markets around the world, covered warrants are more popular than the traditional warrants described above. Financially they are also similar to call options, but are typically bought by retail investors, rather than investment funds or banks, who prefer the more keenly priced options which tend to trade on a different market. Covered warrants normally trade alongside equities, which makes them easier for retail investors to buy and sell them.

Third-party warrants

Third-party warrant is a derivative issued by the holders of the underlying instrument. Suppose a company issues warrants which give the holder the right to convert each warrant into one share at \$500. This warrant is company-issued. Suppose, a mutual fund that holds shares of the company sells warrants against those shares, also exercisable at \$500 per share. These are called third-party warrants. The primary advantage is that the instrument helps in the price discovery process. In the above case, the mutual fund selling a one-year warrant exercisable at \$500 sends a signal to other investors that the stock may trade at \$500-levels in one year. If volumes in such warrants are high, the price discovery process will be that much better; for it would mean that many investors believe that the stock will trade at that level in one year. Third-party warrants are essentially long-term call options. The seller of the warrants does a covered call-write. That is, the seller will hold the stock and sell warrants against them. If the stock does not cross \$500, the buyer will not exercise the warrant. The seller will, therefore, keep the warrant premium.