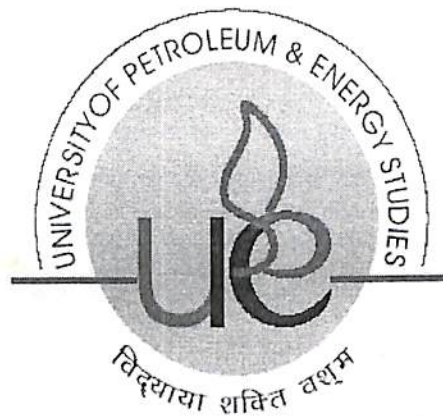


# Mergers and Acquisitions A Case Study in Oil and Gas Sector

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## ABSTRACT

Mergers and acquisition is conscious phenomenon generated within the minds of entrepreneur .Many factors influence firms to go for merger operations. concentration of M&A activity in is all types of industries ranging from manufacturing to services and to agriculture

It is consensus among all industries ,banks ,financial institutes and the government to support M&A activities, for extensive economic growth of posting revenues and generating profits.

M&A started in 1980's taking to ceiling high of participation from all business entities.It is not so easy to acquire and run the show smoothly , history reveals most of the M&A firms have failed to delivery value.

Initially it was done to create monopoly in the markets and some have done it.due to certain economic problems government have intervened to frame anti-monoploy polices.Protecting the interest of shareholders and other firms associated with it .

M&A is now well organized ,simply because there are number of consultants and investment bankers available.To give you brief snapshot M&A activity involves structured set of study ranging from strategic management ,financial management, economic management and even psychology and human resource management.

Various researchers are conducting studies to make it more flexible ,reliable and compromising to the corpus world. it is easier said then don' if had it been easier then all industrial sectors would have done it.

This dissertation carries the theories, methodology, and various issues associated with the M&A activities. some financial , valuation is shown ,taxation ,divestitures and sell-off are addressed to understand the interrelation between issues of M&A.

Changing in regulatory conditions have helped increase the M&A activity in oil and gas, telecom, communication and broadcasting in India .Government is boasting confidence among the investors and regulators are protecting the interest of the investors.

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# Chapter 1

## Introduction

If marriages are made in heaven, you need a lot of important people who would facilitate them. Our interest in any marriage would be limited to the fun and frolic associated with it. Believe me, corporate marriages are not fun. The mega-buck, mega-sized "deals" make or break the company, enrich or pauperize investors, and ultimately may or may not change the way business was done. Welcome to the world of Mergers & Acquisitions (M&A) where fame and fortune come easily to you, if you do have the best skills and mind to do.

Companies look at various ways to grow. One way to do so is Organic Growth, where the company ploughs back the profit it earns. This is done by distributing only a part of its earnings in the form of dividends, retaining a major portion and adding it to the capital of the business. The retained earnings (the accounting gurus among you can also read it as Reserves and Surplus), together with additional loans rose from the lenders; contribute to the expansion and growth of the company.

Organically, growth may take years to take place. In the dynamic corporate world, where few minutes' delays could mean loss of millions, a few people would have the time to wait. It is then that the companies look at M&A as an alternative. Merger refers to finding an acceptable partner, determining upon how to pay each other and ultimately creating a new company, which is a combination of both the companies. Acquisition refers to buying out another company and taking it into the fold of the acquiring company. This is done by paying the acquired company, the value of its capital and depending upon the circumstances, a premium over the capital amount. Since the differences are only technical, we refer to all under in the following chapters.

Consultation experts who are normally referred to as M&A bankers or executives do the activities of M&A. They work in the M&A department of Investment Banks, the financial services organization that chiefly cater to such demands of their corporate clients:

The investment bank approaches a prospective client with the suggestion to take over a company and expand its operations. The client comes to the investment bank and asks whether it should go for an M&A, in the first place. The client recognizes the need to go in for M&A, but is not able to find a suitable partner. So the investment bank searches for a suitable partner, based on the profile of the client as well as its ideas and ambitions regarding growth.

Either the investment bank or the client by itself would identify a company (say, X) for acquisition or merger. The M&A team would now go to the management of X representing the client, to convince X to sell out or merge with the client. The banker would also negotiate on behalf of the client to determine the price to be paid, the mode of

payment and other terms of the deal. (If X doesn't want to sell out, there might also be a case of hostile takeover bid). The process can happen on the reverse side when the client approaches the investment bank for selling out to a bigger company. People involved in an M&A deal end up with tons of deal fees and bonuses.

Historically, mergers have often failed to add significantly to the value of the acquiring firm's shares. Corporate mergers may be aimed at reducing market competition, cutting costs (for example, laying off employees), reducing taxes, removing management, "empire building" by the acquiring managers, or other purposes which may not be consistent with public policy or public welfare. Thus, the government body plays an important role in regulating these policies.

The occurrence of a merger often raises concerns in anti-trust circles. Devices such as the Herfindahl index in (u.s) can analyze the impact of a merger on a market and what, if any, action could prevent it. Regulatory bodies such as the European Commission and the United States Department of Justice may investigate anti-trust cases for monopolies dangers, and have the power to block mergers. In India, this trend is on its way as sebi, security and exchange board of India is working on these areas.

The MNE, conglomerate and other major firm's mergers. Could create threat in the market, given the fact that these firms could raise prices, inflation and monopoly. government here plays a cautious role in framing stringent policies, keeping shareholder, people and society interests in the mind. Therefore, government bodies, agencies like federal trade commission in the United States, security and exchange board of India and department of justice constantly monitor and evaluate the market. Act as a policeman of the market.

The completion of a merger does not ensure the success of the resulting organization; indeed, many mergers (in some industries, the majority) result in a net loss of value due to problems. Correcting problems caused by incompatibility—whether of technology, equipment, or corporate culture diverts resources away from new investment, and these problems may be exacerbated by inadequate research or by concealment of losses or liabilities at one of the partners.

Overlapping subsidiaries or redundant staff may be allowed to continue, creating inefficiency, and conversely the new management may cut too many operations or personnel, losing expertise and disrupting employee culture. These problems are similar to those encountered in takeovers. For the merger to not be considered a failure, it must increase shareholder value faster than if the companies were separate, or prevent the deterioration of shareholder value more than, if the companies were separate.

No marketplace currently exists for the mergers and acquisitions of privately-owned small to mid-sized companies. Market participants often wish to maintain a level of secrecy about their efforts to buy or sell such companies. Their concern for secrecy usually arises from the possible negative reactions a company's employees, bankers, suppliers, customers and others might have if the effort or interest to seek a transaction

were to become known. This need for secrecy has thus far thwarted the emergence of a public forum or marketplace to serve as a clearinghouse for this large volume of business.

At present, the process by which a company is bought or sold can prove difficult, slow and expensive. A transaction typically requires six to nine months and involves many steps. Locating parties with whom to conduct a transaction forms one step in the overall process and perhaps the most difficult one. Qualified and interested buyers of multimillion dollar corporations are hard to find. Even more difficulties attend bringing a number of potential buyers forward simultaneously during negotiations. Potential acquirers in industry simply cannot effectively "monitor" the economy at large for acquisition opportunities even though some may fit well within their company's operations or plans.

An industry of professional "middlemen" (known variously as intermediaries, business brokers, and investment bankers) exists to facilitate M&A transactions. These professionals do not provide their services cheaply and generally resort to previously-established personal contacts, direct-calling campaigns, and placing advertisements in various media. In servicing their clients, they attempt to create a one-time market for a one-time transaction. Many but not all transactions use intermediaries on one or both sides.

Despite best intentions, intermediaries can operate inefficiently because of the slow and limiting nature of having to rely heavily on telephone communications. Many phone calls fail to contact with the intended party. Busy executives tend to be impatient when dealing with sales calls concerning opportunities in which they have no interest. These marketing problems typify any private negotiated markets.

The market inefficiencies can prove detrimental for this important sector of the economy. Beyond the intermediaries' high fees, the current process for mergers and acquisitions has the effect of causing private companies to initially sell their shares at a significant discount relative to what the same company might sell for were it already publicly traded. An important and large sector of the entire economy is held back by the difficulty in conducting corporate M&A (and in raising equity or debt capital). Furthermore, it is likely that since privately held companies are so difficult to sell they are not sold as often as they might or should be.

## **CHAPTER 2**

### **THEORY OF MERGERS AND ACQUISITIONS**

#### **Strategy and Diversification**

M&A activity should take place within the framework of long-range planning by business firms. Therefore, it is useful to present a review of the planning process and the role of diversification and mergers in strategic planning

## **STRATEGY**

Many different theories and approaches to strategy formulation and implementation are presented in the literature. Some writers distinguish between strategy as a concept and strategy as a process. Others emphasize that strategy is a way of thinking. However defined, strategy is concerned with the most important decisions made in an enterprise. The central thrust of these decisions is the future of the organization. While the horizon is the long view, strategy to be implemented properly must also take account of mid-term and short-run decisions and actions.

Strategy is formulated in many different ways. The strategic planning process can be performed based on a set of formal procedures and/or informally in the minds of managers. Strategy is not static. Individual strategies, plans, policies, or procedures are utilized, but they are not the strategic planning. Thinking, requiring diverse inputs from all segments of the organization. Everyone must be involved in the strategic planning processes.

Since strategic planning is concerned with the future of the organization, it follows that ultimate responsibility resides in the top executive (group). While many others perform important roles and have responsibilities for strategic planning processes, the chief executive (group) must take ultimate responsibility for its success or failure. The chief executive officer (CEO or group) is responsible for the strategic planning process for the firm as a whole; the top manager of a division must be responsible for strategic planning for that division and for conforming it to the strategic planning for the organization as a whole.

Strategic management includes some steps and these steps indicate the critical activities involved in strategic planning processes. These procedures are described at length in the vast literature on strategy. Whether these represent formal or informal procedures, they are elements to be covered. In each of the strategic planning activities, both staff and line personnel have important responsibilities in the strategic decision-making processes.

Apart from these steps, there are some general elements required for all strategic planning activity. In other aspects of strategic planning wide diversify is encountered. These involve a number of different activities and aspects. A key to all approaches to strategic planning is continuous monitoring of the external environments. The environments should encompass both domestic and international dimensions and include analysis of economic; technological, political, social, and legal factors. Organizations will give different emphasis and weight to each of the categories.



The strategic planning processes must take into account the diverse stakeholders of organizations. These are the individuals and groups, which have an interest in the organization and its actions. They include customers, stockholders, creditors, employees, governments, communities, media, political groups, educational institutions, financial community, and international entities.

Some of great strategic management theories which are been development by different schools of thought in the strategy field can be observed. Each represents some combination of the methodologies and/or analytical frameworks.

The Boston Consulting Group (BCG) historically emphasized three concepts: the experience curve, the product life cycle, and portfolio balance (Boston Consulting Group, 1985; Henderson, 1984).

The experience curve represents a volume-cost relationship. It is argued that as the cumulative historical volume of output increases, unit costs will fall at a geometric rate. This is said to result from specialization, standardization, learning, and scale effects. The firm with the largest cumulative output will have lower costs, suggesting a strategy of early entry and price policies to develop volume.

The product life cycle holds that every product or line of business proceeds through four phases: development, growth, maturity, and decline. During the first two stages, sales growth is rapid and entry is easy. As individual firms gain experience and as growth slows in the last two stages, entry becomes difficult because of the cost advantages of incumbents. In the decline phase of the product line (as other product substitutes emerge) sales and prices decline; firms which have not achieved a favorable position on the experience curve become unprofitable and either merge or exit from the industry.

Related to the product life cycle is the concept of portfolio balance. In the early stages of the product life cycle, rapid growth may require substantial investments. Such business segments are likely to require more investment funds than are generated by current profitability levels. As the requirements for growth diminish, profits may generate

More funds than required for current investment requirements. Portfolio balance seeks to combine attractive investment segments, stars) with cash-generating. segment (cash cows), eliminating segments with unattractive prospects (dogs). Overall, total corporate cash inflows will roughly balance total corporate investments.

While the volume-cost relationships implied by the experience curve have been documented for some industries, particularly commodity-type products, their general applicability has not been substantiated. Microeconomics would suggest that the emphasis on cost advantage neglects opportunities provided by product quality, variety, and innovation. The emphasis on growth and/or portfolio balance may be inconsistent with maximization of shareholder value. The practical application of the BCG. strategy to

develop a dominant market share in an emerging industry may be difficult to implement; if many firms try to do the same thing their efforts may become self-cancelling. Some argue also that substantial aspects of experience are a part of knowledge that rapidly diffuses across firms and industries (Thomas, 1986).

Michael Porter has elaborated his views in a number of writings (Porter, 198C, 1985, 1987). His approach can be summarized into three parts: (1) select an attractive industry, (2) develop competitive advantage through cost leadership and product differentiation, and (3) develop attractive value chains.

Porter (1987, p. 46) defines an attractive industry or strategic group as one in which entry barriers are high, suppliers and buyers have only modest bargaining power, substitute products or services are few, and the rivalry among competitors is stable. An unattractive industry like steel will have structural flaws, including a plethora of substitute materials, powerful and price-sensitive buyers, and excessive rivalry caused by high fixed costs and a large group of competitors, many of whom are state supported.

The difficulty of generalizing about industries is demonstrated by Porter's example. During the past decade minimills have flourished and by 1988 some major steel firms had returned to profitability. In addition, there appears to be an inconsistency in that high fixed costs are considered to be an entry barrier in Porter's theory.

Second, Porter formulates a matrix for developing generic strategies. Competitive advantage may be based on cost leadership or on product differentiation. Cost advantage is achieved by consideration of a wide range of checklist factors including BCG's learning curve theory. The focus of cost advantage or of product differentiation can be on

Narrow market segments, or niches (for autos, the luxury car market-Cadillac, Continental, BMW, Mercedes, and so on) or broader market groups (compact and standard cars) or across the board (GM).

Porter's third key concept is "the value chain." A matrix relates the support activities of infrastructure, human resource management, technology development, and procurement to the primary activities of inbound logistics, operations, outbound logistics, marketing-sales, and service. The aim is to minimize outlays in adding characteristics valued by customers.

Porter's prescriptions can be interpreted as finding an industry or industry sector in which a small number of firms can "cooperate" (collude) behind high entry barriers. While many insights are found in the related checklists developed, the basic philosophic orientation is flawed. It is similar in spirit to the structural theory of industrial organization economics which evidence in recent years has controverted (Weston, 1978, 1982, and references cited). If barriers to entry are high, the costs of entry or acquisition will permit only a normal rate of return. Moreover, the dimensions of products and prices are so numerous and subject to such rapid change that collusive efforts could not achieve

sustained effectiveness. Furthermore, the benefits of competitive superiority far outweigh the dubious gains from attempts at collusion (these models are based on alternatives)

There also involves some few elements, which we have to consider. general goals may be formulated with respect to size, growth, stability, flexibility, and technological breadth. Size objectives are established in order to use effectively the fixed factors the firm owns or buys. Size objectives have also been expressed in terms of critical mass. Critical mass refers to the size a firm must achieve in order to attain cost levels that enable the firm to operate profitably at market prices.

Growth objectives may be expressed in terms of sales, total assets, earnings per share, or the market price of the firm's stock. These are related to two valuation objectives. One is to attain a favorable price/earnings multiple for the firm's shares. A second is to increase the ratio of the market value of a firm's common stock to its book value.

Two major forms of instability can be distinguished. The first is exemplified by the defense market, which is subject to large, erratic fluctuations in its total size and abrupt shifts in individual programs. Another form of instability is the cyclical instability that characterizes producers of both industrial and consumer durable goods. The goal of flexibility refers to the firm's ability to operate in a wide variety of product markets. Such flexibility may require a breadth of research, manufacturing, or marketing capabilities. Of increased interest in recent years is technological breadth. With the increased pace of technological change in the U.S. economy, a firm may consider it important to possess capabilities in the rapidly advancing technologies.

Goals may be stated in general or specific terms, but both are subject to quantification. For example, growth objectives may be expressed in relationship to the growth of the economy or the firm's industry. Specific objectives may be expressed in terms of percentage of sales in specified types of markets. The quantification of goals facilitates comparisons of goals with the potential for achieving them.

Efforts to achieve multiple goals suggest a broader range of variables in the decision processes of the firm. Decisions require judgments of the nature of future environments, the policies of other firms with respect to the dimensions described, and new needs of customers, technologies, and capabilities. In short, to the requirements of operating efficiency and optimal output adjustments has been added the increased importance of the planning processes.

## **DIVERSIFICATION STRATEGY**

Other things being equal, a preferred strategy is to move into a diversification program from a base or core of existing capabilities or organizational strengths. Guidance may be obtained by answers to the following questions: Is there strength in the general management functions, Can the company provide staff: expertise in a wide range of

areas? Can the firm's financial planning and control effectiveness have a broad application? Are there specific capabilities such as research, marketing, and manufacturing that the firm is seeking to spread over a wider arena ?

The firm should be clear on both its strengths and its limitations. To remedy weaknesses, the firm should clearly define the specific new capabilities it is seeking to obtain. If the firm does not possess a sufficient breadth of capability to use as a basis for moving into other areas, an alternative strategy may be employed. This would be to establish a beachhead of capabilities in one or more selected areas. The firm is then in a position to develop concentrically from each of these nuclei.

To understand the potential carry-over of capabilities even in pure conglomerate mergers, one needs to recognize that the nature of firms and the boundaries of industries have become much more dynamic and flexible in recent years. The emphasis of traditional economic theory, as reflected in the Census Bureau's Standard Industrial Classification, is on industry boundary delineation that is mainly product or process oriented. However, organization theory and the behavior of individual firms reflect an emphasis increasingly on missions and capabilities.

In a world of continuing change, managements must relate to *missions*, defined in terms of customer needs, wants, or problems to be solved. In addition to missions, another important dimension of the concept of industries is a *range of capabilities*. Technological capabilities embrace all processes from basic research, product design and development, and applications engineering through interrelated manufacturing methods and obtaining feedback from consumers. Managerial capabilities include competence in the generic management functions of planning, organizing, directing, and controlling, as well as in the specific management functions of research, production, personnel, marketing, and finance. Another important dimension of managerial capabilities is coordinating and achieving an effective organization system or entity.

The development of such a range of capabilities requires substantial investments in the training and experience of people. It includes investments in holding organizations together during periods of depressed sales. Market demand-and-supply forces place a high value on executive talent and staff expertise. Managerial technology and the effectiveness of management practices are key factors in the efficiency performances of firms.

Potential competition has been enlarged. Industry boundaries defined by products become less meaningful than industries defined by the ability to perform the critical functions for meeting customer needs. The ease of entry is increased because the critical factors for success in changing environments include a range of technologies, experience developed in international markets and even the adoption of new managerial techniques.

Growth and diversification may be achieved both internally and externally. For some activities, internal development may be advantageous. For others, careful analysis may reveal sound business reasons for external diversification.

Factors favoring external growth and diversification through mergers and acquisitions include the following:

1. Some goals and objectives may be achieved more speedily through an external acquisition.
2. The cost of building an organization internally may exceed the cost of an acquisition.
3. There may be fewer risks, lower costs, or shorter time requirements involved in achieving an economically feasible market share by the external route.
4. The firm may be able to use securities in obtaining other companies, whereas it might not be able to finance the acquisition of equivalent assets and capabilities internally.
5. Other firms may not be utilizing their assets or managements as effectively as they could be utilized by the acquiring firm.
6. There may be tax advantages.
7. There may be opportunities to complement the capabilities of other firms.

In general, internal development is favored when the preceding advantages are minimal. Frequently the firms available for acquisition will not provide attractive opportunities for achieving the goals that have been set forth; as in make-or-buy decisions, internal development may be more feasible from an economic standpoint. Merger and acquisition activity involves very large stakes and high risks.

From a practical business standpoint, growth through mergers and diversification represents a sound alternative to be taken into account in business planning. We do not wish to imply that external growth and diversification should be the major form of growth, but experience suggests that at times external growth may contribute to opportunities for effective alignment to the firm's changing environments. Combining firms, however, does not provide an automatic basis for success. Even the combination of related activities presents formidable challenges to effective managerial planning and control performance. Concentric mergers that involve the carry-over of specific capabilities provide more direct opportunities for cost reduction and scale economies. However, even with conglomerate mergers, important social and business gains are possible.

Apart from planning there various other things to be considered those are an economic standpoint, does any justification exist for these long-range- planning efforts of firms to achieve the regeneration of their organization systems? Particularly, does any justification exist for the use of mergers to seek continuity of firms? One justification for the continuity of firms whose performance is falling short of their competitors is the reduction in the expected present value of the costs of bankruptcy or liquidation. Whether bankruptcy is due to, for example, financial causes, operating or managerial weakness, or inappropriate balance with the environment, one of the potential areas of loss is in investment in reputation and organization capital (which represents firm- specific

information embodied in employees or used in forming efficient production and management teams in the organization).

Data compiled on conglomerate mergers by the Federal Trade Commission divide them into three groups: (1) product extension, (2) market extension, and (3) others that might be called pure conglomerate mergers. Product-extension and market-extension mergers usually provide opportunities for the carry-over of industry-specific management capabilities such as research, applications engineering, production, marketing, and so on. Pure conglomerate mergers, then, would involve, at least initially, the potential carry-over only of the general management functions of planning, organizing, directing, controlling, and so on. While finance is a specific management function, its role in the generic functions of planning and control and the broad generality of its applications suggest its treatment as a general management function as well.

The motivation on the part of the diversifying or acquiring firm is an expectation that it has or will have excess capacity of general managerial capabilities in relation to its existing product-market activities. Furthermore, there is an expectation that in the processes of interacting on the generic management activities, particularly overall planning and control and financial planning and control, the diversifying firm will develop industry-specific managerial experience and firm - specific organization capital over time.

However, even this formulation is somewhat restrictive. It applies to companies such as ITT in which under Harold Geneen a high level of capability had been achieved in financial planning and control systems. But other types of carry-overs were also involved. For example, for Litton Industries the original conception was to apply advanced technologies from its defense business to industries for which such applications appeared to have a sound economic and business basis as well as to bring to organization interactions a systems approach to management (again developed out of prior experience of the top managers of Litton). A high percentage of conglomerates came out of the defense industry, not only with an objective to apply organizational capital and the desire to avoid the destruction of such organization capital, but also with a need to acquire additional critical managerial capabilities to be successful in the nondefense sector of the economy. Particularly critical for the defense firms was the establishment of a capability for performing industrial marketing. This suggests that where the desired capability requires an organizational learning and development process that involves time and uncertainties, merger enables the firm to obtain such critical capabilities at a determinate cost and to avoid the risks of extreme and uncertain outcomes.

Another capability that defense firms had was the ability to manage change. The ability to manage change as such represented an important contribution to a wide range of nondefense industries that had not developed this kind of organization knowledge. Again, even though there appeared to be no relationships between the merging firms, there was a complementarity when firms were viewed as groups of capabilities in the framework of an organization.

Increased technological trend, The second trend stimulating greater business diversification has been the increased rate of technological change in the U.S. economy. The increased pace of product development shortens the life cycles of products. *The* growth rates in sales for individual industries and individual products begin to level off in less time, while opportunities for growth in new areas multiply at a faster pace. Thus, the opportunities for diversification have increased along with the pressures for change. Technological expertise is spread unequally among business firms and industries, and the prospect for economic profits from supplying advanced technological capabilities to industries and firms who need them provides an increased incentive to diversify.

It has been argued that diversification can be achieved as well through internal expansion as through external acquisition. This view fails to recognize the size and risks of the investments and costs involved in diversification activity. For a firm with advanced technological capability, but without the requisite industrial production or marketing facilities and experience, to attempt to apply these capabilities *de novo* in diverse areas represents a high-risk investment. The high cost of capital associated with such risks would be prohibitive for some firms and thus some of these investments would not be made. Other investments of this type would take place, but at a much slower pace than that which typifies external acquisition.

Thus, business firms hope to achieve synergistic or carry-over effects from the distinctive attributes or qualities which they bring to a merger. These gains to the individual firms are also social gains. They represent an increase in the pace at which efficiencies are spread throughout the economy. They contribute to the quality, level, and growth rate of output in the economy.

Larger fixed costs for the staff services, The advances in management technology and the increased pace of technological change, coupled with more dynamic economic and cultural environments, have increased the complexity of business operations. Furthermore, the expanding role and requirements of government bodies have necessitated a larger complement of staff services in modern business firms. Both the need and the costs for staff services have increased. The need to maintain an effectively competitive position in the world economy has also resulted in a larger management staff with a broader range of management capabilities and has thus increased the fixed costs of business operations. Scale economies have increasingly resulted from investment in managerial organizations rather than from investment in physical plants.

The economies derived from spreading the fixed costs for managerial staff and specialist functions over a wide range of activities have increased. Small firms have difficulty attracting management with a full range of abilities. Even if the small firms were able to bid successfully for such capabilities, their fixed costs would be substantially raised. Many staff and specialist functions are applicable in different types of industries. Thus, a further stimulus to diversification, both internal and external, has resulted.

Developments in the equity markets, Trends in the equity markets have reinforced the influence of the foregoing factors in encouraging diversification by external

acquisition. One significant influence was the discovery of the concept of growth stocks by the financial press and academic writers in the late 1950s and early 1960s. Higher valuations were placed on stocks with recognized potential for growth in earnings and dividends than on stocks with little or no expected growth in earnings or dividends. Thus, higher price/earnings (P/E) ratios resulted for growth stocks. Because of the upward drift in price/earnings ratios from the 1950s through the early 1960s, the growth rate for stock prices increased more rapidly than the growth rate for earnings or dividends during that period.

The increased interest in growth stimulated mergers in various ways. It intensified management's search for product markets with growth opportunities. Along with improved methods of financial planning and control, management had incentives to seek methods for effectively controlling costs in order to increase both average earnings and the growth rate of earnings. A wide variety of financial methods were available to contribute to favorable performance and to the growth in earnings per share of the companies' securities.

The foregoing review of the economic and financial developments that stimulated an emphasis on diversification indicates that there were both business and economic benefits to be gained from diversification efforts. The objective of achieving increased shareholder values has stimulated creativity in operating activities and in a variety of financial methods as well.

Evaluation of how strategy is performed by business firms depends on the particular conceptual approach to the subject. The BCG and Porter approaches argue that well-formulated principles can guide firms unerringly to the right decisions. The BCG approach emphasizes gaining market share in emerging industries to always be farther along the experience curve than your competitors. The Porter approach incorporates tenets of the structural theory industrial organization economics. This theory claims that firms can erect and protect monopoly advantages. The Porter approach to strategy reflects this basic ideology: Find an attractive industry or industry segment, defined as an area in which large firms can collude behind entry barriers buttressed by credible deterrence. With this clear prescription, firms should not have a high rate of product-market adjustments and changes. In this framework divestiture represents a mistake. Hence, Porter's tests of effective strategy rely on a measure of the rate of entries to movements into new areas.

In the process approach to strategy each firm has a set of capabilities and opportunities. The firm must seek to exploit these effectively in relation to its changing environments. It must recognize that the dynamics of competition and economic change will, require continuous reassessment of its position and realignment to its new challenges and opportunities. In this view the firm is required to make strategic decisions in the face of much uncertainty and considerable risk.



In this process view of strategy, divestitures represent a form of a strategic adjustment process. Divestitures are not necessarily management mistakes. Numerous case studies demonstrate that many divestitures were planned in advance in order to retain the desired parts of an acquisition. Or divestitures can represent a method of making acquisitions and paying them off in part or some- times entirely by the segments sold off. At a minimum this may help make the diversification effort a low-cost one. Hence, it is erroneous to conclude that divestitures represent management mistakes.

Internal and external investment programs may be successful or unsuccessful. Firms may try either or both approaches in their efforts to increase shareholder value. The generalizations of writers on strategic planning contain valuable in- sights for helping firms carry out strategies with a higher degree of efficiency than they otherwise would have been able to attain. The critical need is a rapid information feedback system in the firm to improve its capabilities for adapting to change, correcting errors, and seizing new opportunities.

## **Chapter 3**

### **Methodology**

## THEORY OF VALUATION

Capital budgeting represents the process of planning expenditures whose returns extend over a period of time. Examples of capital outlays for tangible or physical items are expenditures for land, building, and equipment. Outlays for research and development, advertising, or promotion efforts may also be regarded as investment outlays when their benefits extend over a period of years. While capital budgeting criteria are generally discussed in relation to investment in fixed assets, the concepts are equally applicable to investment in cash, receivables, or inventory, as well as M&As and other restructuring activities.

Administrative aspects in Investment decisions and their evaluation by capital budgeting analysis are important for a number of reasons. (1) The consequences of the decision continue for a number of years. Thus, after making an investment decision, some flexibility for the future is reduced. (2) Capital budgeting requires effective planning, including accurate sales forecasts, to assure the proper timing of asset acquisitions. This means that capital assets should be available when needed, and yet not too early to avoid the extra cost of having them idle until required. (3) Since asset expansion involves substantial outlays, the required financing must be arranged in advance. (4) Since the dollar amounts of outlays on investments are large, the success or failure of an enterprise may result from excessive investments, inadequate amounts of investment, or undue delay in replacing obsolete , assets.

Individual firms usually have formal administrative procedures for reviewing capital budgeting requests. Small items can be approved by individual department heads, while larger dollar amounts require approval from officers at higher li levels in the organizational structure. Major investment outlays require the review and approval of the company's finance committee or, in some instances, the board of directors. .

The finance department generally coordinates its activities with other departments to develop systematic records on the use of investment funds. Records are also compiled on revenues and savings from equipment purchased. An important aspect of the record keeping is postaudits, which provide a comparison between the initial estimates and the actual results. The postaudits review past decisions to aid in improving decisions on new investment outlays.

How it is evaluated that is the evaluation criteria used, major methods for evaluating projects have been developed. The net present value methodology is widely agreed to be the superior method for evaluation and ranking of investment proposals. The net present value (NPV) method is the present value of all future cash flows discounted at the cost of capital, minus the cost of the investment also discounted at the cost of capital. Its main competitor is the internal rate of return method (IRR). The IRR represents the discount rate at which the net present value or net terminal value of all cash flows is zero. We illustrate each by a case problem example.

A firm can invest \$180,000 now to receive \$40,000 per year for ten years. The cost of capital for this project is 14 percent. What is the NPV of the project? The formula for calculating the NPV is:

$$NPV = \sum_{t=1}^n \frac{CF_t}{(1+k)^t} - I_0$$

$$NPV = \sum_{t=1}^{10} \frac{\$40,000}{(1.14)^t} - \$180,000$$

where :

NPV = net present value

$CF_t$  = net cash flow in year t (after taxes)

k = marginal cost of capital

n = number of years, investment horizon

$I_0$  = investment outlay in year zero

We can now calculate the NPV by using the information from the problem statement.

$$\begin{aligned} NPV &= 40,000 [PVIFA (14\%, 10 \text{ yrs.})] - 180,000 \\ &= 40,000 (5.2161) - \$180,000 \\ &= \$208,644 - \$180,000 \\ NPV &= GPV - I_0 \\ &= \$28,644 \end{aligned}$$

The present value of the cash inflows is the gross present value of the project (GPV). From this figure, the present value of the investment outlays is deducted to obtain the NPV of the project. The discount rate is the applicable marginal cost of capital for this project.

From the same data we can also readily calculate the IRR of the project. It is the discount rate which makes the NPV in the preceding equation equal to zero. We set the NPV equal to zero and solve for the interest rate as follows.

$$\begin{aligned} 0 &= \$40,000 [PVIFA(IRR, 10 \text{ yrs.})] - \$180,000 \\ PVIFA(IRR, 10 \text{ yrs.}) &= \$180,000/40,000 = 4.5000 = PVIFA (18\%, 10 \text{ yrs.}) \end{aligned}$$

The interest factor of 4.5000 tells us that the IRR is equal to 18 percent. For the preceding illustrative problem, both the NPV and IRR procedures give us the same selection result. With the NPV method, with the cost of capital at 14 percent, the project has a positive NPV and should be accepted. The IRR of 18 percent exceeds the cost of

capital at 14 percent, so by the IRR criterion, the project again passes the acceptability test.

A major difference between the NPV and the IRR methods is that the NPV method assumes reinvestment at the cost of capital, while the IRR assumes reinvestment at the IRR rate. The reinvestment-rate assumption is a misnomer for what should be called the opportunity-cost assumption. All investment projects of equal risk will have the same opportunity cost from the point of view of all investors. The real issue is, given the risk of the project, the rate at which funds can be invested (or reinvested) somewhere else for the same level of risk.

A major advantage of the NPV method is that it satisfies the value additivity principle (VAP). The VAP permits managers to consider each project independently of all others. Also, important from the point of view of this book, the NPV from each project represents the amount which the investment in that project adds to the value of the firm. Thus, NPV is the basis for increases in the value of the firm. Hence, from the standpoint of creating value for the firm (and adding value to the economy as a whole), maximizing NPVs is the correct goal for decision makers.

It is useful to understand both the NPV and IRR methods of capital budgeting. Both provide useful insights. But in developing concepts of valuation for use in M&A and related analysis, the NPV provides us with the necessary foundation for the further analysis under text.

## DEFINITION AND MEASUREMENT OF CASH FLOWS

The critical variables in the expressions for calculating the NPV and the IRR are the cash flows ( $CF_t$ ) and the cost of capital ( $k$ ). We have explained the cost of capital as the relevant marginal (opportunity) cost of capital commensurate with the risk of the project. We describe the methods of calculating the marginal cost of capital in the following chapter. Here we need to make clear the nature of the annual cash flows ( $CF_t$ ). We do this in the context of the valuation models required for M&A analysis.

When we move to the level of the firm, we add up all the investment projects undertaken. The analysis then utilizes the basic financial statements of the firm, the income statement and the balance sheets. These can be used to explain what elements are contained in the annual cash flow figures to be capitalized.

We begin with an illustrative income statement, as shown in Table 6.1. In the illustrative income statement, the focus is on the elements below "Earnings before depreciation, interest, and taxes (EBDIT)." These are the components to be considered in defining the relevant cash flows. It is assumed that the firm does not have any non-operating income or expenses that would cause net operating income (NOI) to differ from earnings before interest and taxes (EBIT). Note that the abbreviations that we use in the

following models are defined in the illustrative income statement. Some calculations are done by taking assuming certain figures to show how calculations

In the related balance sheets, it is assumed that the firm has no plant and equipment retirements between the two years so that the reserve for depreciation between year 1 and year 2 is the \$20,000 amount in the income statement.

## Financial Statements

### Illustrative Income Statement

YEAR -2

Sales	\$145,000
Operating Costs excluding depreciation	95,000
Earnings before depreciation, interest, and taxes (EBDIT)	<u>50,000</u>
Depreciation expense (Dep)	20,000
Earnings before interest and taxes (EBIT = NOI = x)	<u>30,000</u>
Interest expense (f)	5,000
Earnings before taxes (EBT)	<u>25,000</u>
Taxes @ 40 percent (T = tax rate)	10,000
Net Income (Y) (NI)	<u>\$15,000</u>

### Related Balance Sheets (in thousands) [end-of-year (EOY) amounts]

	YEAR 1	YEAR 2		YEAR 1	YEAR 2
Current assets	40	70	Interest-bearing debt	30	45
Gross fixed assets	70	100	Noninterest-bearing debt	20	30
Reserve for Dep.	10	30	Shareholders' equity	50	65
Net fixed assets	<u>60</u>	<u>70</u>			
Total assets (net)	<u><u>100</u></u>	<u><u>140</u></u>	Claims on assets	<u><u>100</u></u>	<u><u>140</u></u>

Also, gross fixed assets increase by \$30,000 between the two years, representing the amount of gross investment made by the firm during year 2. It is further assumed that the firm pays no dividends, so that shareholders' equity in year 2 increase by \$15,000, the net income shown in the income statement.

Utilizing the information in the income statement and related balance sheets, we can measure key components of the firm's cash flows. These are first defined on a gross basis as follows :

## Free Cash Flow (FCF) – Gross Basis

	YEAR 2
Net Income	\$15,000
+ Depreciation	20,000
= Cash flow from operations	35,000
+ After – tax interest [ $f(1-T)$ ]	3,000
= Cash operating income (gross)	38,000
- Investment (G)	30,000
= Free Cash flow (PCF)	8,000

On a gross basis, depreciation is added to net income to obtain *cash flow from operations*. This is consistent with the writings of financial analysts in evaluating common stock who measure cash flow in this same way. After-tax interest expenses (or more generally, financial charges) are added to cash flow from operations to obtain *cash operating income*. The firm pays \$5,000 interest expense, but with a 40 percent tax rate, this saves \$2,000 in taxes. Hence, the cash operating income (the cash flow, *CF<sub>t</sub>*, used in evaluating investment projects) would include only the after-tax interest expenses. This item is used in the basic capital budgeting equation to calculate the NPV or IRR on a gross basis.

Cash flows (*CF<sub>t</sub>*) or cash operating income can be calculated either on a top-down or a bottom-up basis, as follows:

Top-Down (Cash Operating Income)

"

$$1 \text{ EBDIT } (1 - T) + T(\text{Dep}) = 50,000 (.6) + .4 (20,000) = \$38,000$$

$$1 \text{ (x + Dep)}(1 - T) + T(\text{Dep}) = \$38,000$$

$$1 \text{ (EBT + I)}(1 - T) + \text{Dep} = 30,000 (.6) + 20,000 = \$38,000$$

$$1 \text{ (EBT + I)}(1 - T) + \text{Dep} = \$38,000$$

$$1 \text{ NI + Dep + [I(1-T)]} = 15,000 + 20,000 + 5,000 (.6) = \$38,000$$

Measuring from the top down, the relevant cash flows on a gross basis for capital budgeting in line 1 start with earnings before depreciation, interest, and taxes (EBDIT) on an after-tax basis to which is added the tax shelter from depreciation [ $T(\text{Dep})$ ]. Line 1a is the same except that EBDIT is broken into its component parts of NOI and Dep. In line 2, the same result of \$38,000 is obtained by adding after-tax NOI to the full amount of depreciation. Line 2a breaks NOI into earnings before tax (EBT) and financial charges (I). Line 3 (a bottom-up method) begins with the financial analysts' measure of cash flow consisting of net income (NI) plus depreciation (Dep) to which is added after-tax financial charges [ $I(1-T)$ ]. Thus, we can obtain cash operating income (*CF<sub>t</sub>*) by a

number of alternative methods which are equivalent and give the same numerical result, in this case- \$38,000. Note that in lines 1 and 2, we do not need the data for interest expenses. This implies that in measuring the free cash flow, financial leverage need not be

considered.

As in our simple example of capital budgeting for a project, we next deduct the amount of investment required for the period to finally arrive at the free cash flow (FCF) of the firm. Since we are measuring cash operating income gross of (adding back) depreciation, the investment figure that is deducted is also on a gross basis (before deducting depreciation). The result is a free cash flow (FCF) of \$8,000. if

We next set forth the calculation of the free cash flow on a net basis:

On a net basis, we simply omit the same depreciation figure in the operating income item and in the investment measure. Both are net of depreciation. Cash operating income is now  $[X(1 - T)]$  which is net operating income after taxes, or \$18,000 in our example. The same result is obtained by adding back depreciation to net operating income after taxes,  $[X(1 - T) + I]$  which is  $\$15,000 + \$3,000 = \$18,000$ . It is more convenient in principle and simpler from an analytical standpoint to do the analysis on a net basis. Hence, we use this general procedure in the materials which follow.

J

#### CAPITAL BUDGETING BASIS OR FIRM VALUATION

We now have all the elements to move the analysis to the level of firm valuation. We simply build upon the net-basis relationships just observed. We do this on a yearly basis. The sum of each year's cash flows less the investment requirements, appropriately discounted, is the value of the firm.

J

$$V_0 = \frac{X_1(1 - T) - I_1}{1 + k} + \frac{X_2(1 - T) - I_2}{(1 + k)^2} + \frac{X_3(1 - T) - I_3}{(1 + k)^3} + \dots$$

i

$$+ \frac{X_4(1 - T) - I_4}{(1 + k)^4} + \dots + \frac{X_T(1 - T) - I_T}{(1 + k)^T}$$

Each term on the right-hand side of equation (6.1) represents the  $[X(1 - T) - I]$ , or after-tax net operating income less the investment for that year, counted back to the present. The investment outlays result in inflows beginning one period after the investment outlays. In this most general statement of firm valuation, all of the key factors could be different for each year, namely cash flow  $X$ , investment outlays  $I$ , the cost of capital  $k$ , and the tax rate  $T$ .

To help give meaning to this equation, we present a numerical example. Assume that the firm comes to an end after period 4. Since investment

will produce additional income during the next period, the firm will make no investment in period 4. If we then assume data for each of the four periods for  $X$ ,  $I$ , and  $k$  (with the dollar amounts in millions), the value of the firm is:

$$\begin{aligned}
 & \$200(.6) - \$100 \$240(.7) - \$120 \$300(.5) - \$150 V_0 = \frac{1.1}{(1.11)} + \frac{(1.1)(1.12)}{(1.11)(1.12)} + \frac{(1.1)(1.12)}{(1.11)(1.12)} \\
 & \$350(.6)
 \end{aligned}$$

Of-

$$(1.1)(1.12)(1.11)(1.08)$$

$$VO = \$18.18 + \$38.96 + 0 + \$142.19 = \$199.33$$

"

The calculation for each term is made and summed to arrive at a value of the firm total of \$199.33 million.

The valuation for any firm under any set of data assumptions or circumstances could be performed using the very general expression in equation .

The number of periods could be considered to go on indefinitely or the analysis could be performed for a shorter period of time as illustrated in our example for four periods. Each of the variables could be different for each time period and no relationship need exist between one time period and another. Large-scale computer programs can readily handle a problem of this type no matter how complex. However, the programs would have to represent very large-scale systems and would be very expensive in their use of computer time.

Since valuation is based on net cash flows for future periods, projections or forecasts for the future are required. These will necessarily involve judgments. Most practitioners assume some systematic relations between the time periods. Specifically, it is usually postulated that sales and the free cash flow will grow at some rate. Also fixed relationships are implicitly assumed for the key performance variables of the firm. For these reasons it is useful to reformulate the most general capital budgeting valuation expression, equation (6.1), into more compact expressions (formulas). This can be done by postulating patterns of relationships in the behavior of the underlying variables from period to period. First, we set forth some numerical illustrations and definitional relationships to make the analysis more concrete. / r".

#### IVE MEASURES, /INVESTMENT RATE:

We first consider the issue of how to measure the changes in total capital requirements of the firm, and to measure the rate of investments. We can illustrate the issues by reference to the material presented in the illustrative balance sheets from the previous chapter in Table 6.1. Our aim is to obtain a measure of the amount of investment in assets that the firm will have to finance. Utilizing the format of the balance sheets in Table 6.1, total capital requirements or total financing requirements equal (current assets less noninterest-bearing debt) plus (net fixed assets). Using the data from Table 6.1 by this measure total capital for year 2 would be:

$$\begin{aligned}
 & \text{Current assets (70) - noninterest-bearing debt (30)} \\
 & + \text{net fixed assets (70)} = 110
 \end{aligned}$$



This measure has also been referred to as net working capital (NWC) requirements plus net fixed investment (NFI) requirements. Some authors and practitioners measure working capital requirements as current assets minus current liabilities. But current liabilities often contain interest-bearing debt such as notes payable as well as the current portion of long-term debt payable. Since the objective is to measure financing requirements, it is logical to net out "spontaneous financing," but not important elements of financing.

An alternative procedure for calculating total capital is to add interest-bearing debt and shareholders' equity. For year 2 from Table 6.1 this would be:  
 Interest-bearing debt (45) + Shareholders' equity (65) = \$110

We get the same result. The sum of interest-bearing debt and shareholders' equity is also often referred to as total capitalization. It represents the total outside funding required for financing the economic resources employed by the firm.

Investment is the change in total resources. We can show the equality of both approaches on an incremental basis as well. The changes in the accounts in Table 6.1 are as follows:

-Change in current assets	\$30	Change in interest-bearing debt	45
+ Change in net fixed assets	10	Change in shareholders' equity	65
Total	\$40	Investment (liability side)	110
Less: Change in noninterest-bearing debt	10		
Investment (Asset side or NWC + NFI)	\$30		

Thus, again we observe that there is no change whether investments are measured from the changes on the asset side or from changes on the source of financing shown on the right-hand side of the balance sheet.

But when the firm has marketable securities (MS) and investments (in companies), then the equality relationships discussed above will usually not hold. This is because both the balance sheet and income statements will be augmented by additional accounts as shown in Table 6.2.

The balance sheet is augmented by the marketable securities and investment accounts. The debt and equity accounts are increased to provide financing for increased assets. In the illustrative income statement, net operating income is unchanged at \$30,000. But an account which reflects the income from marketable securities and investments is now added. The amount is assumed to be \$6,000. The next account is "earnings before interest and taxes (EBIT)," seen to be \$36,000. Since interest-bearing debt was increased as a partial source of financing the increased assets, interest expense is also increased.

The main consequence of adding the marketable securities and investments to the analysis is that NOI and EBIT are now different in concept and dollar amounts. This makes it desirable to recognize two alternative approaches to measuring investment requirements: (1) *Total Capitalization-EBIT Measure* and (2) *Operating Assets-NOI Measure*. Each is described.

**Total Capitalization-EBIT Measure  
(Method 1)**

Investment requirements are measured by the changes in financing requirements, that is, the sum of changes in interest-bearing debt (IBD) plus shareholder equity (SHE).,  $\Delta IBD(15) + \Delta SHE(20) = \$35$

It is likely that the asset side of the balance sheet that is being financed includes marketable securities and investments in other companies. These investments will generate income designated as "interest earned" or "other income" on the income statement. The related measure of (before-tax) cash flows shows

Net income (Y) (NI) \$ 18,000

RELATED BALANCE SHEETS (in thousands) [end-of-year (EOY) amounts]

YEAR YEAR YEAR YEAR 1 2 1 2

=

Marketable securities 10 15 Interest-bearing debt 40 55 Other current assets ...'J!!!!.

Noninterest-bearing debt 30 35

Total current assets 50 75

Investments in other firms 20 25 Shareholders' equity 60 80

Fixed assets gross 70 100 Reserve for Dep 10 30 Net fixed assets 60 70

Total assets (net) 130 170 Claims on assets 130 170

Earnings before interest and taxes (EBIT). The measure of investment will include marketable securities and investments which are not included in the second (NOI) measure of investment. The measure of investment requirements rates (the rates of investment to net cash flows-what we have labeled, *b*) would be higher than in the second method if cash flows were measured identically under the two alternative methods. When total valuation of the firm is calculated by this method, it is not necessary to add the value of marketable securities (MS) plus investments since they have already been included in the calculations.

**Operating Assets-NOI Measure. J  
(Method 2)**

Investment is measured as changes in net current assets ( $\Delta ICA - \Delta IMS - \Delta INIBCL$ ) plus changes in net fixed assets ( $\Delta INFA$ ). Marketable securities should not be included in current assets for this measure unless they are held as a form of cash or working capital, that is, for transactions purposes. From the investment in year 2 would be  $\Delta ICA(25) - \Delta IMS(5) - \Delta INIBCL(5) + \Delta INFA(1) = \$25$ . This is smaller than in Method 1 because investments in marketable securities and in other companies are not considered investments in operating

If investment is measured this way, the NOI should be the measure of flows. After the valuation of the firm has been calculated, we add back the value of marketable securities plus investments.

To reiterate, under the NOI method of calculating investment requirements we work from the asset side. We sum net working capital requirements plus net fixed assets. Net working capital is measured by current assets excluding marketable securities less noninterest-bearing current liabilities (NIBCL), cash required for transactions purposes is included. NIBCL is obtained by deducting from current liabilities all interest-bearing short-term debt (notes and the current portion of long-term debt due during the year). Accrued interest is in NIBCL, but deferred taxes are not. Deferred taxes are already taken account by using actual taxes currently paid rather than current plus deferred taxes in adjusting the income statement data to a cash flow basis.

In theory, when investment is measured on an incremental basis underlying accounts, and during the period of analysis the firm does not buy its marketable securities or investments in other companies, both methods give the same results. The firm initially may have a large investment in marketable securities and a large investment account in other companies. How these items do not change during the period under analysis, they will not show up in an incremental measure of investment. But even when the firm changes investment in marketable securities and in other companies and the methods differ, the valuation result may not be materially affected.

## SELL - OFFS AND DIVESTITURES

Sell-offs and divestitures are a part of what is called the restructuring of corp. - ! Rate America. But in addition to sell-offs and divestitures, many other forms of j restructuring can also be identified. These include liquidations, leveraged buy- off, outs, management buy-outs, master limited partnerships, royalty trusts, as well as employee stock ownership plans (ESOPs).

The restructuring of business firms stems from a number of basic forces. One objective addresses the agency problem of the conflict of interest between managers and shareholders. A central purpose of restructuring is to align better the interests of managers and shareholders. A second function of restructuring is to move assets to owners who can utilize them more effectively. This helps the economic system move assets to their highest valued uses. A third general reason given for the restructuring of the 1980s is to reverse fthe conglomerate merger movement of the 1960s. Sc,me argue that it was un- : sound to combine many diverse activities into conglomerates as occurred in the 1960s. Conglomeration appeared to be the result of management theories which held that at the level of geJleral management functions particularly, executives could effectively manage a wide range of business types. sought defensive diversification.

In addition, horizontal and vertical were effectively prohibited by the administration of the antitrust laws m United States. Some ascribe the need to break up conglomerates as a quence of the intensification of competition in the U.S. economy, parti increased international competition. Others view the conglomerate as a of a learning process and an emphasis on developing new core businesses more favorable outlooks or better suited to the capabilities possessed by managements of individual conglomerate firms. Voluntary liquidations "bust-up" takeovers reflect the judgment that the sale of individual parts of firms could realize greater values than the combination of the parts in '. corporate enterprise.

Most studies have focused on divestitures and spin-offs as a means of aligning or separating a product line, division, or subsidiary. Divestitures rep the sale of a segment of a company to a third party. Assets, product subsidiaries, or divisions are sold for cash or securities or some comb' thereof. The compensation received, net of capital gains taxation, may be however the seller's management sees fit. The assets are revalued by the purposes of future depreciation by the buyer. Dun and Bradstreet's 1983 its television stations is an example of a divestiture. Divestitures are real merger and acquisition (M&A) transactions in that in recent years a percent of acquisition activities represented divestitures by other firms. pe~cel\age has fiuc\uated in the 35 percent to 40 percent range during the 1 down from a peak of 53 percent to 54 percent during 1976 and 1975,

Spin-offs are more often associated with controlled subsidiaries, In a off, a company distributes on a pro rata basis all the shares it owns in a subsidiary to its own~

shareholders. Two separate public corporations with (initially) same proportional equity ownership now exist where only one existed

No money changes hands, and the subsidiary's assets are not revalued. transaction is treated as a stock dividend and a tax-free exchange. AT&T's reorganization represented a massive (albeit involuntary) spin-off of its ing subsidiaries. Spin-offs are distinguished from equity carve-outs, in which some of subsidiary shares are offered for sale to the general public, bringing an information cash to the parent firm without loss of control. spin-off in which the remaining controlling interest in TWA was spun off, that is, distributed on a pro rata basis to Trans World Corporation's shareholders.

Other types of sell-offs include *split-offs* in which some, but not all, parent company shareholders receive the subsidiary's shares in return for which they must relinquish their parent company shares. Dome Petroleum purchased an equity interest in Conoco, which they subsequently traded for ownership of Conoco's Hudson Bay oil and gas fields. And finally there are *split-ups*, in which all of a firm's subsidiaries are spun off and the parent firm ceases to exist.

If not all of the above are confusing different writers often use enough, these terms in different ways. However, because of the potential for confusion, most writers are careful to describe exactly the type of transaction they mean by each term. In the following sections of this chapter we discuss successively various aspects of divestitures, spin-offs, equity carve-outs, their rationale and case studies. We then present several aspects of Liquidation.

We first discuss divestitures because of the major role they perform in M&A activity. Like M&A activity in general, the explanations for divestitures are multiple and diverse. First, both acquisition and divestiture activity may represent efforts by business firms to adjust to their changing economic environments. After the post-World War II adjustments appeared to have been made, the war in Korea caused new shifts in the U.S. economy. Major post-Korean War adjustments took place in the latter half of the 1950s.

These abrupt changes stimulated the development of the literature on long-range planning and corporate strategy. The 1960s included the involvement in the war in Vietnam. This was the period of the conglomerate merger movement in which about half the firms actively involved were from the defense industry or natural resource industries with depleting resources. The decade of the 1970s marked a change in international currency standards, floating exchange rates, oil shocks, and relatively high rates of inflation throughout the world.

The 1980s were initiated by tight monetary policy in the United States followed by an easing in part to control the debt service costs of the huge indebtedness incurred by

many of the less developed nations. It was a period of 'i', deregulation in a number of major industries in the United States.

M&A activity as well as divestitures represented one set among strategies jly business firms in attempting to adjust to these successive changes in their :!!economic and political environments. Some firms succeeded better than other discussed earlier, many firms used M&As as well as internal start-ups tooportunities in other product-market areas.

Some firms sought to utilize strengths in their existing product-market areas to combine with new capa " in new environments. (The strategy literature urged them to attempt to do see the pioneering book by Ansoff, 1965.) A related strategy was to seekatl toehold in new product-market areas. The hope was that initial entry could beachhead for further growth and development. Much M&A activity inv moving from industries with unfavorable outlool.<S to industries with rnorefa able opportunities. Sometimes firms did not have the capabilities to eff ' exploit the possible opportunities. Divestitures enabled selling firms to salva portion of their investments by selling to other firms who could exploit opportunities more effectively.

Third, some divestitures undoubtedly were attempts to correct pr ' investment decisions. The mistakes may have occurred in connection with.ej internal or external investments. Mistakes that subsequently caused divesti are particularly likely to occur when companies engage in efforts to div This is because they are moving into product-market areas with which they less familiarity than their existing activities.

Fourth, some divestitures of the type that involved selling to a v increasing buyer were planned at the time of prior M&A activity. Such di tures may have been pre planned because they represented a poor fit tacquiring firm.

Sometimes such divestitures could be turned at a profit; times they involved a loss which might have been more than offset by the segments retained. In many cases the financial results of the acquisi divestiture were interdependent with other strategies so its effects could ascertained. Related preplanned divestitures were for the purpose to he nance an individual acquisition or acquisition program.

Fifth, some acquisitions represented undervalued investments or acq , firms where managements were underperforming. After increasing the val the segment acquired, divestitures may be used to realize the gains achi The firm could then repeat the process. Sixth, some divestitures represented harvesting other types of sur investments. Here the purpose was to make financial and managerial desions.

Available for developing other oppportunities. in which managers needed to develop acti specific investments. Particularly, if the industry or firm reached a stagethe activity needed to be isolated to motivate management, this kind of di ture would be stimulated.

The preceding observations are clear examples of the useful functions that divestitures may perform in a company's evolving planning process. A number of general observations may be made in connection with the preceding brief descriptions of reasons for divestitures. The list is not exhaustive and could be extended. But even a sample of reasons surveyed is sufficient to establish that numerous influences are operating. Given the many forces producing divestitures, it is often difficult to assess whether divestitures represent successes or failures for the divesting firm.

Another general observation is that the use of acquisitions to achieve diverse was severely restricted during the period 1950 through 1980 by government antitrust policies. The 1950 Celler-Kefauver Amendment to the 1914 Clayton Act effectively gave the government the power to stop horizontal and vertical finally, some firms had less pressure to diversify outside their core fields and industries than others. Sometimes this represented good prior strategic lightning. Sometimes it represented shifts in the external economic and financial that turned out to be favorable for particular industries and firms.

The pressures for overcoming a firm's "strategic planning gap or aligning effectively to the firm's changing environments" varied from industry to industry and during different time periods. With this background on the economic and political setting of acquisition-

Effects of Divestitures' in Studies on divestitures have found significant positive abnormal two-day 1 announcement-period returns of between 1 and 2 percent for selling firm share- holders. The announcement effects on returns to buyers did not appear to be tactically significant.

Greater depth. Klein analyzes the announcement date effects by w selling firms initially announced the price of the sell-off or whether was initially announced. When *no* price was announced, there was no cally significant *effect* on share price for the seller.

When firms ini' nounced the price, the size *of* effects depends on the percentage of being sold as measured by the announced price *of* the sell-off divided market value of the equity on the last day of the month prior to the a ment period. There is *no* significant price effect when the percentageJ equity sold is less than 10 percent. When the percentage of equity between 10 and 50 percent, the abnormal returns *to* the seller average tive 2.53 percent. When the percentage of the equity sold is greater percent, the percentage abnormal return is 8.09 percent.

When the abnormal gains *to* sellers from divestitures are aggre totals represent substantial dollar amounts. Black and Grundfest (1988) that for the period 1981 *to* 1986, the abnormal value increases to sellersin2 rate divestitures could be conservatively placed at \$27.6 billion

## TAX PLANNING OPTIONS

### SOURCES OF TAX BENEFITS

There are several sources of merger-related tax benefits: Market value of depreciable assets in excess of book value and Substitution of capital gains for ordinary income. Unused and/or unusable NOL and tax credit carry overs. Uncertainty of valuation for estate tax purposes.

**Market Value of Depreciable Assets in Excess of Book Value** Changes in the value of a target's assets can provide a powerful tax incentive for mergers. By accounting convention, a firm's balance sheet reflects the historical cost of its assets. Although replacement cost information may be provided, depreciation charges are based on these historical costs.

If the current market value of the assets greatly exceeds the historical cost as is often the case, especially in a period of inflation, a potential for a greater depreciation tax shelter is achievable if the asset is revalued by a sale transaction. The acquiring firm can! Achieve a stepped-up asset basis reflecting the purchase price, resulting in a t' greater depreciation tax shelter than the target firm enjoyed on the same assets. ! The increased depreciation tax shelter is available only to the new owner,

**Substitution of Capital Gains for Ordinary Income** 'A growth firm with many investment opportunities generally follows a policy of 110 dividends, and attracts a shareholder clientele with a preference for such policy, As growth slows and investment opportunities diminish, the risk increases the IRS may impose a penalty tax on improperly accumulated earnings if the no-dividend policy is continued. If the firm's stock is publicly traded, its shareholders can simply sell their shares to others with less aversion to dividend income. The market price of the stock should reflect a capitalization of expected future earnings, and selling shareholders will realize capital gains rather than dividends subject to the ordinary personal income tax.

**Uncertainty of Valuation for Estate Tax Purpose.** The sale of a closely held firm before the owners' death provides both a valuation for estate taxation purposes as well as the liquidity for the heirs to the estate tax liability. emphasized the combined influence of estate tax and asset basis step-up considerations in their study of mergers in newspaper industry. The ability to step up the basis for depreciable results in higher prices for the companies acquired. These high prices reflect market values which are then used by the tax authorities in valuing companies for estate tax purposes.

But in order to realize the tax benefits of a stepped-up basis, a sales transaction must take place.



Tax planning and equity and Fiscal Responsibility Act of 1982 (TEFRA) contained of complex provisions affecting both individuals and businesses. Tax patterns had to be changed as a consequence of the legislative changes. We at tax planning pre- TEFRA in this section. The following section covers TEFRA tax changes up to the next major tax law changes which occurred in The Tax Reform Act of 1986 made many additional fundamental changes are also reviewed.

As noted earlier, the IRS distinction between taxable and tax-free reorganizations focuses on the consideration paid (voting stock of the acquirer other) and target shareholder tax liability (deferred versus immediate). This framework, and depending on the specific tax attributes involved, the case that transactions which benefit acquiring firms do so by liabilities for target firms and/or their shareholders (and vice versa). For a stepped-up asset basis (beneficial to the acquiring firm) is generally only in a taxable takeover; but this would mean immediate capital gain

It has been noted that tender offers are characterized by higher premiums (greater gains for target shareholders) than mergers. This may, in part, be because tender offers are more often than not taxable events, and thus target shareholders demand a higher pretax return, whereas mergers are often treated as tax-free reorganizations. The creativity and expertise of corporate legal advisers is called into play because companies, not unnaturally, want to "have their cake and eat it too." They seek to realize maximum tax benefits immediately while indefinitely deferring tax liabilities. Complex plans are devised and re-worked with every change in the tax laws. Laying aside for the moment the IRS dichotomy between taxable and tax-free transactions, we now discuss various means by which firms have been able to achieve desired tax goals regardless of medium of exchange or target shareholder tax consequences.

One popular plan grew out of the General Utilities rule that a corporation does not recognize gain on the distribution of appreciated property with respect to (in redemption of) its shares [Section (311)(d)(2)(B)]. Such stock redemptions enable companies to dispose of appreciated assets without recognizing capital gain or depreciation recapture income, while passing benefits of the transaction on to their shareholders in the form of capital gains rather than dividend income. Ginsburg (1983) provides several case illustrations.

The 1980 Mobil-Esmark transaction is one example. Esmark wanted to sell its Vickers Energy Corporation. Mobil Corporation wanted to buy TransOcean Oil, a subsidiary of Vickers. Instead of simply buying TransOcean Oil stock, which would have resulted ultimately in a capital gain for Esmark, Mobil made a cash tender offer for Esmark stock. Mobil then redeemed its Esmark stock in exchange for shares of Vickers Energy Corporation (which by that time held TransOcean Oil stock as its only asset). Esmark was not required to recognize any gain on the distribution of appreciated property (the Vickers stock) to a shareholder in a redemption. Esmark shareholders were free to choose whether they wanted to participate in the transaction; presumably those who tendered their shares to Mobil did so willingly, and took their returns in the form of capital gains.

## TAX REFORM ACT OF 1986

What started out as a "tax simplification" effort ended up being a tax law? The Tax Reform Act of 1986 resulted in the enactment of the Internal Revenue Code that made many fundamental changes from the 1954 Code. The Tax Reform Act of 1986 had a number of impacts on acquisition transactions. (1) It severely restricted the use of net operating loss carry-overs. (2) The preferential rate on corporate capital gains was a minimum tax was imposed on corporate profits. (4) The General doctrine was repealed. (5) Greenmail payments could not be deducted.

### Net Operating Loss (NOL)

The new tax reform act provides that if there is greater than a 50 percent ownership change in a loss corporation within a three-year period, an annual limit on the use of NOLs will be imposed. The amount of an NOL that may be offset against earnings is limited to the value of the loss corporation at the ownership change multiplied by the long-term tax-exempt bond rate. For example, assume a loss corporation is worth \$10 million. Before an ownership change, the tax-exempt bond rate is 7 percent, the corporation has a \$5 million loss carry-forward. Then \$700,000 ( $\$10 \times 7\%$ ) of the NOL can be used annually to offset the acquiring firm's income.

In addition, a loss corporation may not utilize NOL carry-over if it continues substantially the same business for two years after the ownership change. If this requirement is not met, all of the losses generally are disallowed.

### Corporate Capital Gains Tax

The corporate capital gains tax rate had been 28 percent. For taxable years beginning on or after July 1, 1987, long-term as well as short-term corporate capital gains are taxed as ordinary income subject to the maximum corporation tax rate of 34 percent.

Before the Tax Reform Act of 1986, a corporation paid a minimum tax on specific tax preferences in addition to its regular tax. The old add-on minimum tax is replaced by an alternative minimum tax with a flat rate of 20 percent. Thus, corporations pay taxes on at least 20 percent of their income above the exemption amount. This has a negative impact on leveraged buy-outs and acquisitions of mature companies where effective tax rates are below 20 percent.

## METHODS OF PAYMENT AND LEVERAGE

The earlier studies by Gordon and Yagil (1981) and by Wansley, Lane, and Yang (1983) found higher abnormal returns for cash offers than for stock offers. The Gordon and Yagil study examined completed pure conglomerate mergers over the period 1948-1976. The Wansley, Lane, and Yang work covered mergers for the period 1970-1978. Wansley, Lane, and Yang found that the target firm cumulative average residual for the 41 days through the announcement date when the method of payment was cash was 33.54 percent as compared with 17.47 percent when securities were used.

When the method of payment represented a combination of cash and securities, the CAR was 11.77 percent. They discuss the role of taxes in impacting these differential abnormal returns. They also observe that when stock is used, the bidding firm must go through Securities and Exchange Commission registration which may take several months. Cash offers can be accomplished much more rapidly. The longer time to complete a takeover gives target management more possibilities for developing a defense to the takeover. They can stimulate additional bids and may encourage such bids by selectively disclosing important information to selected potential bidders.

Later studies by Travlos (1985, 1987) analyze the impact of methods of payment on both bidders and targets. For target firms, his results are similar to those of Wansley, Lane, and Yang. The two-day announcement period abnormal cumulative portfolio return when common stock is used is 12.04 percent. They find that significant positive abnormal returns start appearing a week before the announcement appears in *The Wall Street Journal*. In cash transactions the two-day abnormal return is 17.06 percent and highly significant. Again some significant abnormal returns are observed in the preannouncement period.

For the bidding firms, Travlos finds that when stock is used as the method of payment, the two-day announcement period CAR is minus 1.47 percent, which is significant at the .01 level. Thus, the effect is small but still statistically significant. He observes that Gordon and Yagil found positive abnormal returns of 5.3 percent over the eight-month period prior to the completion date of the merger, but that the long period may confound the influence of other factors. The results of Travlos are more comparable to those of Eger (1983) who found in a sample of 37 pure common stock exchange mergers that bidding stockholders lose about 3 percent during the event period.

However, the results are different when the buying firms use cash to acquire target firms. The two-day announcement period cumulative abnormal return is .24 percent which is insignificant. Travlos concludes that on average shareholders of bidding firms earn only normal rates of return when their firms pay cash in a takeover. Again his results differ from those of Gordon and Yagil who found an abnormal cumulative (monthly) return of 7.9 percent over the eight-month period prior to the merger completion date.

The findings by Travlos on the results for bidder firms have great significance both for theory and practice. Studies which have found negative returns to bidding firms have argued that shareholders of bidding firms are penalized by takeover activities. They argue that an agency problem is involved. But if only normal returns are experienced when cash is used, this reflects the highly competitive nature of the takeover market. The negative returns when common stock exchanges are employed may simply reflect the negative information implications set out by Myers and Majluf (1984). When the studies do not distinguish between cash and common stock exchange takeovers, the average result may simply reflect the method of payment rather than a meaningful measure of the performance of bidding firms.

Franks, Hams, and Mayer (1987) compare the effects of means of payment {(In takeovers for the United Kingdom as well as for the United States. Their results are summarized in Table 13.1.

Queen (1989) also studied the effects of the form of payment. Queen brings in another variable, the extent to which the tender offer may have been anticipated prior to the announcement date. Her results can be summarized in the following matrix of returns:

	PREANNOUNCEMENT	AROUND-ANNOUNCEMENT	TOTAL	
PERIODS				
Target	noncash > cash	noncash < cash	noncash	=
cash				
Bidder	noncash =	cash noncash = cash	noncash	=
cash				

It can be seen that her results when measured around the announcement date are similar to the results for the studies previously described. However, she extends the analysis into the preannouncement period. Here the target receives more in a noncash tender than for a cash tender offer. For bidders abnormal returns are the same whether the method of payment is cash or noncash. When she combines the two periods, Queen finds that for the total periods, the abnormal returns to both the target and bidder are the same whether cash or noncash is employed. Queen, therefore, concludes that observed differences are simply because the extent to which the tender was anticipated was not analyzed in the previous studies.

A study by Huang and Walking (1987) combines the analysis of payment with acquisition form and managerial resistance. Whereas studies found higher abnormal returns (30 to 35 percent) for tender for mergers (15 to 20 percent) for target shareholders, such studies consider the effect of payment method and target management Huang and Walking find that when method of payment and degree tance are taken into account statistically, abnormal returns are no tender offers than in mergers. Managerial resistance carries somewhi abnormal returns, but the results are not statistically significant.

These are not affected after controlling for form of payment and form of a

The most powerful influence they find is the method of payment. After controlling for type of acquisition and for managerial resistance, cash offers higher abnormal returns than stock offers. The average CAR for 29.3 percent compared with 14.4 percent for stock offers. For mixed the average abnormal return is 23.3 percent, which falls between reported for stock and cash offers.

Huang and Walkling subject the results to regression analysis. They attempt to take the effects of form of payment, managerial resistance, and acquisition into account holding two of the influences constant while varies. The difference between the abnormal returns of tender offers disappears when the influence of the form of payment and managerial resistance are taken into account. But the difference between cash and stock offers remains strong even after controlling for resistance and the form of merger or tender offer.

Studies of the empirical results on the influence of method of payment offer a number of alternative theories to explain their results. The leading ones involve tax factors, information effects, and signaling. The main tax effects considered are tax deferral, a capital gains tax, and asset write-ups. A stock-for-stock exchange enables the target shareholders to avoid taxes at the time of the takeover.

However, when they sell the equity in the exchange transaction, it will then be subject to a capital gains tax. Hence, the tax is deferred and in addition, it is in the form of a capital gain rather than an ordinary tax. (With the Tax Reform Act of 1986, the capital tax advantage is lost as the capital gains treatment is removed.) Tax deferral is of benefit to the target shareholders. When cash is used, the capital tax has to be paid immediately by the target shareholders. This reduces their after-tax returns to the target shareholders. Some, therefore, argue that the premiums and abnormal returns in cash payments must be higher to offset.

The potential for writing up assets to recover a higher amount of depreciated tax shelter is an advantage that is realized by the bidder. This may lead the bidder to pay a higher premium to the target. The advantage of asset write-up to the bidder may help explain the small positive gain observed when cash is used as the method of payment in a takeover.

The third theoretical thread is signaling in the sense of indicating future investment opportunities or cash flows. The use of cash can be a positive signal in ways. For the bidder, it may signal that cash flows from its existing assets are large. If this signaling effect exists and if internal financing as opposed to external financing facilitates investments, then it may have a derived effect.

That it can signal the ability of the bidder to exploit the investment opportunities possessed by the target or created by synergy effects. Cash signals the bidder's private information on the profitability.

The use of equity has opposite effects. It is a negative signal for the bidder. It may also be a negative signal for the takeover that the ability of the combined firm to internalize the investment is not great with respect to internal financing. Hence, bidders using method of payment will experience negative abnormal returns, i.e. gain but they would not gain as much as when cash is used and the bidder and the target share takeover.

We have now completed a review of the empirical studies on methods of payment in a corporate takeover on shareholder also related the empirical evidence to three alternative theories. We the third segment outlined at the beginning of the chapter, the effects activity on leverage ratios. Closely related to the topic of method of the new development that occurred in recent years, the use of high- (generally referred to as junk bonds) M&A activity.

Junk bonds are high-yield bonds either rated below investment rated. Using Standard & Poor's ratings, junk bonds are defined at using Moody's the level is below Baa3. Allegations have been made bonds have contributed to excessive takeover activity and resulted in levels of business leverage. Taggart (1986) has addressed these issues pirical data and analysis Trends in the Use of Junk Bonds There have always been high-yield bonds.

But prior to 1977, high- were "fallen angels," bonds initially rated investment grade but wh' had been subsequently lowered. The first issuer of bonds rated be ment grade from the start is said to be Lehman Brothers in 1977. Drexel Lambert soon became the industry leader. Competition followed, but had 45 percent of the market in 1986 and 43.2 percent of the market tNovember 1987 (Frantz, 1987). However, as a result of its legal Drexel's share of public underwritings of junk debt fell to only 16 pe first quarter of 1989 (Laing, 1989). Between 1970 and 1977, high-yi represented on average about 3 to 4 percent of total public straight.

## JOINT VENTURES

Mergers and tender offers involve a complete fusion of two independent firms or other entities into a single decision-making unit. Many other forms of relationships between firms take place. They can range from licensing or cross-licensing of particular technologies, joint bidding on an individual contract, franchising or other forms of short-term or long-term contracts. Joint ventures represent another form of relationship between two or more business entities and are widely used by business firms. During the period 1972-1979 it has been tabulated that 7,000 U.S. corporations engaged in intercorporate joint ventures (McConnell and Nantell 1985, quoting Mergers and Acquisitions magazine).

In an excellent in-depth study, *Business Week* (1986) listed a number of joint ventures and the reasons for the associations. These are listed in Table 14.1. The reasons for the joint ventures are varied. They are illustrative of the wide range of motives for joint ventures.

Joint venture participants continue to exist as separate firms with a joint venture representing a newly created business enterprise. The joint venture may be organized as a partnership, a corporation, or any other form of business organization the participating firms might choose to select.

In contract law, joint ventures are usually described as having the following characteristics:

1. Contribution by partners of money, property, effort, knowledge, skill, or other asset to a common undertaking
2. Joint property interest in the subject matter of the venture
3. Right of mutual control or management of the enterprise
4. Expectation of profit, or presence of "adventure"
5. Right to share in the profit
6. Usual limitation of the objective to a single undertaking or ad hoc enterprise

Thus, joint ventures are of limited scope and duration. Typically they involve only a small fraction of each participant's total activities. Each partner must have something unique and important to offer the venture and simultaneously provide a source of gain to the other participants. However, the sharing of information and/or assets required to achieve the objective need not extend.

## EXAMPLES OF JOINT VENTURES AND THEIR OBJECTIVES

PARTNERS	PRODUCT	STRATEGIC OBJECTIVE
AT&T/Olivertti	Computers	Foreign market
Boeing/Mitsubishi/Fuji/Kawasaki	Small aircraft	Cut costs, share technology
Corning/Ciba-Geigy	Lab instruments	New market
Ford/Measurex	Factory automation	Cut costs
GM/Toyota	Autos	Cut costs
GTE/Fujitsu	Communications equipment	Cut costs, better marketing
Kodak/Cetus	Biotech diagnostics	New market, better distribution
3M/Harris	Copiers	Better marketing
U.S. Steel/Pohang Iron & Steel	Steel	Raise capital, expand market
Westinghouse/General Electric	Power Semiconductors	Cut costs, better marketing

beyond the joint venture. Hence the participants competitive relationship need not be affected by the joint venture arrangement.

It has been found that joint ventures and mergers display similar timing characteristics. For the period 1972-1977 the correlation between completed mergers and joint venture start-ups was over .95, highly significant from a statistical standpoint. We have already commented that merger activity is highly correlated with plant and equipment outlays. Both joint ventures and mergers are likely to be stimulated by factors which affect total investment activity generally.

Joint venture in business strategy in recent years, joint ventures has come to be called "strategic alliances." A number of motives have stimulated joint ventures: Share investment expenses or combine a large company that has cash to invest with a smaller company with a product or production idea but with insufficient funds to pursue the opportunity.

This is a somewhat inaccurate description, If a product idea is clearly a good one, financing will usually be forthcoming. Financing is likely to be a problem when the outcome is highly uncertain (risks are high) and the payoff may not come until years into the future. While outside investors may be reluctant to take high risks even on an equity basis, a business firm may be interested because it has more information on the project or has other projects that may benefit from the learning experience that may be gained from the joint venture.

Joint ventures may be used to acquire complementary technological or management resources at lower cost, or to benefit from economies of scale, critical mass, and the learning curve effect-all elements of strategic alliances. The "go together-split" strategy achieves these ends in the usual 50-50 or 60-40 joint venture of limited scope and duration, while the successive integration strategy uses joint venturing as a way of learning about prospective merger partners to full merger or acquisition.



Firms may also use joint venturing as an element of long-run strategic planning. The spider's web strategy is used to provide countervailing power among rivals in a product market and among rivals for a scarce resource. Thus, a small firm in a highly concentrated industry can negotiate joint ventures with several of the industry's dominant firms to form a self-protective network of counterbalancing forces. Indeed, it is reported that large companies such as General Electric are involved in over 100 joint ventures and that IBM, GM, AT&T, and Xerox participate in more than a dozen joint ventures. Companies of the type listed have both financial resources plus managerial and technical competence to bring to a joint venture (*Business Week*, 1986). This strategy presupposes, of course, that the small firm has something unique to offer the industry leaders.

The joint venture and complex learning the expressed purpose of 50 percent of all joint ventures is knowledge acquisition (Berg, Duncan, and Friedman, 1982). The complexity of the knowledge to be transferred is a key factor in determining the contractual relationship between the partners.

Where the knowledge to be transferred is complex or embedded in a complicated set of technological and organizational circumstances, learning-by-doing and teaching-by-doing (UTBD) may be the most appropriate means of transfer. Successive adaptations to changing internal and environmental events may be necessary to achieve efficiency in the process being taught. It may be very costly or even impossible to give training in complex production tasks in a classroom situation—the atmosphere (operations, machines, work group) may be essential. In addition, job incumbents, no matter how skilled, may be unable to describe job skills to trainees except in an operational context. The demands of the task may make joint venture the most appropriate vehicle for the knowledge transfer, L/TBD may not be possible outside the joint venture setting.

Now we will see at tax aspects in JV tax advantages may be a significant factor in many joint ventures. If a corporation contributes a patent or licensable technology to a joint venture, the tax consequences may be less than on royalties earned through a licensing arrangement. For example, one partner contributes the technology: while another contributes depreciable facilities.

The depreciation offsets the revenues accruing to the technology; the joint venture may be taxed at a lower rate than any of its partners; and the partners pay a later capital gains tax on the returns realized by the joint venture if and when it is sold. If the joint venture is organized as a corporation, only its assets are at risk; the partners are liable only to the extent of their investment. This is particularly important in hazardous industries where the risk of worker, product, or environmental liability is high.

A number of other more technical tax advantages may tip the scale towards the use of joint ventures in many circumstances. These include the limitation on operating loss carry-over, the partnership status of unincorporated commercial joint ventures, the use of the equity method of incorporating the joint venture into the partners' financial statements, and the benefits of multiple surtax exemptions.

## ESOPs AND MLPs

To analyze the role that ESOPs perform it is necessary to understand their fundamental nature as an employee benefit plan and their relationship to other employee benefit plans. The employee benefit plans involved are pension plans. A pension plan is established by an organization to provide for payments to plan participants after retirement. Such plans are subject to federal government regulation established by the Employee Retirement Income Security Act (ERISA) of 1974.

ERISA divides employee pension plans into two major types: (1) defined benefit plans, and (2) defined contribution plans. The defined benefit plans are what people usually have in mind when they think about a pension plan. It is the type used by most large corporations. According to a formula set in advance, these plans specify the amounts that participants will receive in retirement. A flat benefit formula is a fixed amount per year of service, such as \$10 for each year of service. An employee with 30 years of service would receive a pension of \$300 per month, subject to a maximum percentage (for example, 60 percent) of (average) final salary. Under a unit benefit formula, the participant receives a fixed percentage of earnings per year of service, such as 2 percent of the average of the last five years. An employee with 30 years of service would receive a monthly pension based on 60 percent of the average final salary. Plans must meet federal fiduciary standards to qualify for favorable tax treatment. They are subject to minimum funding standards and are guaranteed by the Pension Benefit Guarantee Corporation (PBGC).

Defined contribution plans make no fixed commitment to a pension level. Only the contributions into the plan are specified and participants receive over the period of their retirement what is in their accounts when they retire. Defined contribution plans can be of three kinds: stock bonus plans, profit-sharing plans and money purchase plans. In a *stock bonus plan*, the firm contributes a specified number of shares of its common stock into the plan annually. The value of the contribution is based on the price of the stock at a recent date if it is traded. Otherwise, an appraisal is required. The other two forms of defined contribution plans provide for the payment of cash into the plan. Contributions to qualified profit-sharing plans are related to profitability rates, so can vary in dollar amounts from year to year. Defined contribution plans are required by law to make "prudent" investments. They are not subject to minimum funding standards, and are not covered by the PBGC.

ESOPs are defined contribution employee benefit pension plans. Under ERISA, ESOPs are stock bonus plans or combined stock bonus plans and money purchase plans designed to invest primarily in qualifying employer securities. The plans may receive stock or cash, used by the plan managers to buy stock. A stock bonus plan can determine each year the amount to invest. A money purchase plan has a specific contribution schedule, such as 4 percent of ESOP salaries per year. ESOPs may also provide for employee contributions.

ESOPs should also be differentiated from executive incentive programs. These are provided mainly to top management and other key employees. The programs are part of executive compensation packages aimed to align the interests of managers with those of the stockholders. While many forms can be used, the tax laws since 1981 govern two types of plans: incentive stock options (ISOs) and stock appreciation rights (SARs). The exercise price of ISOs must be equal to or greater than the stock price at time of issue. The SARs can have an exercise price as low as 50 percent of the stock price.. Both can have a maximum life of ten years from date of issue.

The different types of ESOP's areIn its reports on ESOPs, the General Accounting Office (GAO) identified four main kinds: leveraged, leveragable, nonleveraged, and tax credit. Each of these is briefly described (GAO, 1986). Leveraged ESOPs were recognized under ERISA in 1974. In a leveraged ESOP, the plan borrows funds to purchase securities of the employer firm. The employer firm makes contributions to the ESOP trust in an amount to meet the annual interest payments on the loan as well as repayments of the principal.

It is well known that corporations can deduct interest as a tax expense, but not principal. However, contributions by the corporations to ESOPs to cover both interest and principal (subject to some limitations) are fully deductible. Leveragable and nonleveraged ESOPs, also recognized under ERISA, are plans which have not used leveraging. In a leveragable ESOP, the plan is authorized, but is not required to borrow funds. The plan documents for nonleveraged ESOPs do not provide for borrowing. Nonleveraged ESO sentially stock bonus plans which are required to invest primarily in the securities of the employer firm.

The Tax Reduction Act of 1975 provided for tax credit ESOPs. In addition to the regular investment credit in existence at that time, an additional investment credit of 1 percent of a qualified investment in plant and equipment could be earned by a contribution of that amount to an ESOP. The plans were called Tax Reduction Act ESOPs or TRASOPs. An additional 0.5 percent credit was added in 1976 for companies which matched contributions of their employees of the same amount to the TRASOP. In 1983 the basis for the credit was changed from plant and equipment investments to 0.5 percent of covered payroll. These types of plans were called payroll-based ESOPs or PAYSOPs. TRASOPs and PAYSOPshave been called tax credit ESOPs. The other three types of referred to as ERISA-type ESOPs.

# Chapter 5

## Conclusion

The bigger wonder in mergers and acquisition lies in Intellectual property that one possesses, consisting of tangible and Intangible Assets. These assets are the land and building, plant and machinery, technology, skilled and knowledgeable people.

Before going for the process of M&A there are certain things which you need to research and analyze first is Capitalization: A Balance Sheet which incorporates a brand value provides a more realistic picture arising from being an acquirer. As it provides a good understanding about the organization, which you can evaluate, their real worth for negotiating the correct price. As the valuation report does not only indicate value, the report also shows as to how the value has been worked out elaborating all assumptions, which provides the real insight and would be of great value to the acquirer.

Consequently, taxation and raised fund studies indicate the worth of debt and equity ratio, the financial and economic implications are to be seen in a more realistic way. The company needs to assess its internal and external environment consisting of people, processes, technological, legal, changing reforms, changing markets and political.

Strategy building process which is formulated in many different ways. The strategic planning process can be performed based on a set of formal procedures and/or informally in the minds of managers. Strategy is not static. Individual strategies, plans, policies, or procedures are utilized, but they are not the strategic planning. Thinking, requiring diverse inputs from all segments of the organization. Everyone must be involved in the strategic planning processes.

Since strategic planning is concerned with the future of the organization, it follows that ultimate responsibility resides in the top executive (group). While many others perform important roles and have responsibilities for strategic planning processes, the chief executive (group) must take ultimate responsibility for its success or failure. The chief executive officer (CEO or group) is responsible for the strategic planning process for the firm as a whole; the top manager of a division must be responsible for strategic planning for that division and for conforming it to the strategic planning for the organization as a whole.

Other things being equal, a preferred strategy is to move into a diversification program from a base or core of existing capabilities or organizational strengths. Guidance may be obtained by answers to the following questions: Is there strength in the general management functions, Can the company provide staff expertise in a wide range of areas? Can the firm's financial planning and control effectiveness have a broad application? Are there specific capabilities such as research, marketing, and manufacturing that the firm is seeking to spread over a wider arena?

The firm should be clear on both its strengths and its limitations. To remedy weaknesses, the firm should clearly define the specific new capabilities it is seeking to obtain. If the firm does not possess a sufficient breadth of capability to use as a basis for moving into other areas, an alternative strategy may be employed. This would be to establish a beachhead of capabilities in one or more selected areas. The firm is then in a position to develop concentrically from each of these nuclei.

Capital budgeting represents the process of planning expenditures whose returns extend over a period of time. Examples of capital outlays for tangible or physical items are expenditures for land, building, and equipment. Outlays for research and development, advertising, or promotion efforts may also be regarded as investment outlays when their benefits extend over a period of years. While capital budgeting criteria are generally discussed in relation to investment in fixed assets, the concepts are equally applicable to investment in cash, receivables, or inventory, as well as M&As and other restructuring activities.

Administrative aspects in Investment decisions and their evaluation by capital budgeting analysis are important for a number of reasons. (1) The consequences of the decision continue for a number of years. Thus, after making an investment decision, some flexibility for the future is reduced. (2) Capital budgeting requires effective planning, including accurate sales forecasts, to assure the proper timing of asset acquisitions. This means that capital assets should be available when needed, and yet not too early to avoid the extra cost of having them idle until required. (3) Since asset expansion involves substantial outlays, the required financing must be arranged in advance. (4) Since the dollar amounts of outlays on investments are large, the success or failure of an enterprise may result from excessive investments, inadequate amounts of investment, or undue delay in replacing obsolete , assets.

Individual firms usually have formal administrative procedures for reviewing capital budgeting requests. Small items can be approved by individual department heads, while larger dollar amounts require approval from officers at higher li levels in the organizational structure. Major investment outlays require the review and approval of the company's finance committee or, in some instances, the board of directors.

The restructuring of business firms stems from a number of basic forces. One objective addresses the agency problem of the conflict of interest between managers and shareholders. A central purpose of restructuring is to align better the interests of managers and shareholders. A second function of restructuring is to move assets to owners who can utilize them more effectively. This helps the economic system move assets to their highest valued.

There are several sources of merger-related tax benefits Market value of depreciable assets in excess of book value and Substitution of capital gains for ordinary income. Unused and/or unusable NOL and tax credit carry overs. Uncertainty of valuation for estate tax purposes.

Market Value of Depreciable Assets in Excess of Book Value Changes in the value of a target's assets can provide a powerful tax incentive for mergers. By accounting convention, a firm's balance sheet reflects the historical cost of its assets. Although replacement cost information may be provided, depreciation charges are based on these historical costs.

If the current market value of the assets greatly exceeds the historical cost as is often the case, especially in a period of inflation, a potential for a greater depreciation tax shelter is achievable if the asset is revalued by a sale transaction. The acquiring firm can! Achieve a stepped-up asset basis reflecting the purchase price, resulting in a t' greater depreciation tax shelter than the target firm enjoyed on the same assets. ! The increased depreciation tax shelter is available only to the new owner,

In the final analysis, the bottomline depends firm's skill at asset origination or the ability to grab new markets and always being one jump ahead of the competition. This requires great marketing coupled with aggression, innovation and strong leadership. Clearly, M&A firms, will create bigger industry entities, not necessarily better ones. On the contrary, mergers may have their own problems unless there is a clear policy.

## Great Mergers & Acquisitions from 1980's-2000

Amorally in United States, Europe and Japan

Acquirer and target, announcement date, deal size, share and cash payment.

In a 1985 merger between Pantry Pride and Revlon, Pantry Pride had to issue 2.1 billion dollars of high-yield debt to buy Revlon. The target Revlon was worth 5 times the acquirer

From 1990-1999

### United States

- AOL Time Warner; America Online and Time Warner (US\$166 billion excluding debt, Stock: 100%, Cash: 0%) (PBS coverage, CNN)
- ExxonMobil; Exxon and Mobil Oil (Dec. 1998, \$77 billion, Stock: 100%, Cash: 0%) (Suns Online, CNN)
- Citigroup; Citicorp and Travelers Group (1999, \$73 billion, Stock: 100%, Cash: 0%) (Cornell, Citigroup FAQ)
- MCI Communications; with WorldCom; created MCI WorldCom (1997) (\$44 billion, Stock: 100%, Cash: 0%) (Department of Justice, MCI.com)
- ChevronTexaco; Chevron and Texaco (\$35 billion) ([2])
- Walt Disney Company; with Capital Cities/ABC (1995) (\$19 billion)
- Monsanto; with Pharmacia & Upjohn
- Pfizer; with Warner-Lambert
- JDS Uniphase; with SDL
- Union Pacific Railroad; with Southern Pacific Railroad
- Verizon; Bell Atlantic, GTE, and AirTouch Cellular

### Europe

- DaimlerChrysler; Daimler Benz and Chrysler (Announced May 1998 - Final 1998) (\$35 billion) ([3])
- Vodafone; with Mannesmann (completed February 2000) (\$183 billion, 100% stock) ([4])
- Total; with Petrofina, and Elf Aquitaine
- BP; with Amoco (completed August 1998) (\$110bn)
- Novartis; Ciba-Geigy and Sandoz in 1996

### Japan

- Mitsubishi UFJ Financial Group (merger of Mitsubishi Tokyo Financial and UFJ, \$88 billion in combined market capitalization at the time of announcement)

In the years of 2000-2006

#### United States

- Sprint; with Nextel
- Verizon with MCI
- Kmart; with Sears, Roebuck (Announced 17 November 2004) (\$11 billion, 55% stock, 45% cash)
- Hewlett-Packard; with Compaq (Announced Sept. 2001 - Final May 2002) (\$25 billion) ([5])
- NBC Universal; NBC and Universal
- J.P. Morgan Chase, Bank One (announced January 14, 2004) (\$59 billion, Stock: 100%, Cash: 0%) (SNL)
- Procter & Gamble buy Gillette (2005, \$54 billion) ([6])
- Bank of America; with FleetBoston Financial (2003, \$47 billion) ([7])
- Cingular and AT&T Wireless (Announced February - Final 16 Oct 2004) (\$41 billion)
- SBC and AT&T Completed November 18, 2005
- Macromedia Inc by Adobe Systems Inc (\$3.4 billion; close 05 Dec 2005)
- Paramount; acquiring Dreamworks for \$3.1 billion
- Walt Disney Company and Pixar, announced January 2006, \$7 billion
- G4 Media and TechTV Inc., announced March 2004, worth over \$300 million
- Lucent Technologies and Alcatel, announced April 2006

#### Europe

- Vivendi Universal; Vivendi SA and Seagram (agreed 19 June 2000) (\$32 billion, Stock: 100%, Cash: 0%) (The Tocqueville Connection, Law firm)
- GlaxoWellcome with SmithKline Beecham (2000) (US\$76 billion)



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