A PRACTICAL GUIDE TO MERGERS, ACQUISITIONS, AND DIVESTITURES

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by

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CHAPTER 1
MERGERS AND ACQUISITIONS

LEARNING OBJECTIVES:

After studying this chapter you will be able to:

1. Define mergers.
2. List twelve conditions required to merge.
3. Define and perform due diligence.
4. Identify information to consider before "doing a deal”
5. Describe antitrust guidelines
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20. Describe accounting, reporting and disclosures for business combinations
21. Discuss the importance of corporate development officers (CDOs)—M&A teams

For years, academic studies maintained mergers and acquisition (M&A) deals destroyed shareholder value. In 2006, however, businesses around the globe bought (and therefore sold) more companies for more money than ever. It was not just a year of record merger volume - more than $3,800 billions - but also a merger market with unprecedented breadth, across geographies and industries. M&A transactions in the current merger cycle differ in significant ways from those of the 1990s, and this probably explains why so much value has recently been created. Specifically, this current merger boom is characterized by

- Horizontal consolidation with significant potential for cost synergies.
- The use by acquirers of existing cash and borrowed money (after-tax cost) to purchase the (relatively higher cost) equity of acquired companies.
- Much lower acquisition premiums being initially paid.

Mergers and acquisitions can result in new organizations whose financial and strategic options are much improved. They are driven by globalization, a long-term market, various barriers to growth, which make M&As a valuable tool by which companies can quickly attempt to increase revenue.

This chapter discusses all facets of M&As including deciding on terms, key factors to consider, pros and cons of mergers, types of arrangements, evaluative criteria, valuation methods, financial effects of the merger, holding companies, takeover bids, SEC filing requirements, accounting and reporting requirements for business combinations, and financial analysis of combinations.

External growth occurs when a business purchases the existing assets of another entity through a merger. You are often required to appraise the suitability of a potential merger as well as participate in negotiations. Besides the growth aspect, a merger may reduce risk through diversification. The three common ways of joining two or more companies are a merger, consolidation, or a holding company.

In a merger, two or more companies are combined into one, where only the acquiring company retains its identity. Generally, the larger of the two companies is the acquirer. A merger is a business combination in which the acquiring firm absorbs a second firm, and the acquiring firm remains in business as a combination of the two merged firms. The acquiring firm usually maintains its name and identity. Mergers are legally straightforward because there is usually a single bidder and payment is made primarily with stock. The shareholders of each merging firm involved are required to vote to approve the merger. However, merger of the operations of two firms may ultimately result from an acquisition of stock.

With a consolidation, two or more companies combine to create a new company. None of the consolidation firms legally survive. For example, companies A and B give all their assets, liabilities, and stock to the new company, C, in return for C's stock, bonds, or cash.

A holding company possesses voting control of one or more other companies. The holding company comprises a group of businesses, each operating as a separate entity. By possessing more than 50% of the voting rights through common stock, the holding company has effective control of another company with a smaller percent of ownership.

Depending on the intent of the combination, there are three common ways in which businesses get together so as to obtain advantages in their markets. They are:

- *Vertical merger.* This occurs when a company combines with a supplier or customer. An example is when a wholesaler combines with retailers.
- *Horizontal merger.* This occurs when two companies in a similar business combine. An example is the combining of two airlines.
- *Conglomerate merger.* This occurs when two companies in unrelated industries combine, such as where an electronics company joins with an insurance company.

MERGERS

Outstanding planning and execution are essential for a successful merger. Integration is reached only after mapping the process and issues of the companies to be merged. Even then just 23% of all acquisitions earn their cost of capital. When M&A deals are announced, a company's stock price rises only 30% of the time. In acquired companies, 47% of executives leave within the first year, and 75% leave within the first three years. Synergies projected for

M&A deals are not achieved 70% of the time. Productivity of merged companies can be affected by up to 50% in the first year and financial performance of newly merged companies is often lacking.

While there is no set formula to guarantee a successful merger, in order to minimize the negative impacts previously discussed, a map of M&A process and issues should be developed. The following steps describe the model of process and issues:

Step 1: Formulate

This stage involves the organization setting out its business objectives and growth strategy in a clear, rational, and data-oriented way. Companies should avoid vague and general objectives. Instead, a specific criteria should be formulated based on the objectives that have been determined and on a strategy of growth through acquisition. These criteria should be expressed in terms of goals like market share, geographic access, new products or technologies, and general amounts for financial synergy. The organization should evaluate the ideal target company based on factors such as the following:

- What type of cost structure does the ideal target have?
- What market channels would this target provide?
- What kinds of organizational competence and capabilities would provide maximum leverage and the greatest number of synergies?
- Are there strategic customer accounts or market segments to be gained?
- In what global regions or countries can we build additional capacity through this target?
- What is the optimum capital structure?
- What are the sources for new acquisitions?
- Will the ideal targets be operated as independent holdings, or does the organization intend to integrate the business partly or fully into its operations?
- If joint venture structures are to be used what level of involvement is desired by the parent company?

Step 2: Locate

After the strategic template has been set in Step 1, the search for desirable target companies should become more focused on financing an operational analysis. These initial parameters, terms, and conditions are defined and ultimately submitted as part of a letter of intent. These letters describe the desired objectives and give an overview of the proposed financial and operational aspects of the transaction. They also include specific details on items like the assets and business units involved, the equity positions of the parent companies, the assumption-of-debt requirements, inter-company supply agreements, employee liabilities, taxes, technology transfer, indemnification, public announcements, and other essential terms and conditions. Additional agreements outside the letter of intent should be made about the following issues. In the case of a joint venture arrangement, the governance structure of the partnership and specific issues for approval need to be agreed upon. The overall process to be used for determining top-level organizational structure and staffing decisions should also be agreed upon. Agreement on the integration process to be used, including mutual participation, formation of key task forces, planning phases, and leadership roles should take place at this point. Another additional agreement that should be made at this point is high-level reconciliation of major discrepancies regarding executive compensation, employee benefits, and incentive compensation plans. Once a consensus is made regarding these agreements, companies can move to Step 3.

Step 3: Investigate

The third step in the model relies on exploring all facets of the target company before finalizing a definitive agreement. Due diligence must be exercised in the financial, operational, legal, environmental, cultural, and strategic areas. Key findings should be summarized for executive review, and all potential merger problems should be identified. Due diligence findings are used to set negotiating parameters, determine bid prices, and provide the basis for initial integration recommendations.

Due diligence is particularly important in light of recent felonious accounting practices. Had Enron or WorldCom been acquired without due diligence, the newly formed company would probably not have uncovered accounting irregularities until months after the acquisition. This could cost billions in market capitalization. There are other areas where due diligence is helpful with assessing risk. The following are key areas to focus due diligence.

- ***Market.*** How large is the target's market? How fast are specific segments growing? Are there threats from substitute technologies or products? To what extent is the market influenced or controlled by governments?
- ***Customers.*** Who are the target's major customers? What are their purchase criteria: price? Quality? Reliability? Do buyers of product X also buy product Y, and do they buy both through similar channels? Are there unmet needs? Are changes in buying behavior to be expected?
- ***Competitors.*** Who are the target's major competitors? What is the degree of rivalry? What are the competitor's strengths and weaknesses? What barriers to entry exist for new competitors? How will the competitors try to exploit the merger or integration issues to their own advantage?
- ***Culture and human resources.*** Which key people must be kept, which core areas of competence should be retained, and how possible is it to do either? Are there major cultural discrepancies with the target? If they could cause major defections or other losses of productivity, is the organization willing to resolve them? If so, at what cost?

To be uninformed on any of these issues can prove to be just as costly as the discovery of fraudulent accounting practices. This level of detailed evaluation must be conducted before an executive team can properly recognize the level of integration that will be appropriate to support the deal.

Exhibit 1 provides a checklist for due diligence.

EXHIBIT 1
DUE DILIGENCE
INFORMATION TO CONSIDER BEFORE "DOING A DEAL"

Financial

1. Latest audited financial statements.
2. Last unaudited financial statements.
3. Ten-year summary financial statements. (Product P&L essential if more than one product.)
4. Projected operating and financial statements.
5. Full description of securities, indebtedness, investments, and other assets and liabilities other than normal day-to-day accounts.
6. Trial balance and chart of accounts and/or description of accounting practices relative to inventories, fixed assets, reserve accounts, etc.
7. List of bank accounts, average balances.
8. Credit reports from banks and Dun & Bradstreet.
9. Federal income tax status; i.e., tax credits, loss or unused carry forwards, any deficiency claims, etc.
10. Summary of state and local tax situation; i.e., applicable taxes, unemployment tax rate, deficiency claims, etc.
11. Tax status of proposed transaction; recommendation of best method of acquisition.
12. Complete list of insurance policies, including description of coverage and cost: workmen's compensation rate.
13. Statement of responsible officer of business as to unrecorded or contingency liabilities.
14. Statement of inventories.
15. Compare last two physical inventories of sizable money items to reflect slow-moving and obsolete materials. Note finished products particularly. Determine how physical compared with book at last physical inventory.
16. Aged list of accounts receivable, credit and collection policies, and trial balance of accounts payable.
17. Detailed statement of general and administrative expenses, selling expenses, factory overhead on a comparative basis for three years.
18. Status of re-negotiation and price re-determination.
19. Bonus and pension plans; salary and commission contracts.
20. Statement of unfilled orders-present and past.
21. Statistics regarding industry group (trends, return on investment, margin on sales, etc.)
22. If any defense contracts in backlog, check margin of profit. Also, if any existing equipment is government-owned.
23. Statements regarding company's break-even point, including details of product mix, costs, and fixed and variable expenses.
24. Status of production or other contracts requiring company performance for a fixed amount where work is yet to be accomplished.
25. List of outstanding capital-asset items.
26. Status of patents, copyrights, royalty agreements, etc.
27. Details of corporate equity accounts.

Operations

Production

1. Review Estimating Department Procedure and formula used for computing cost to establish sales prices. Also review record of performance versus existing sales prices to determine if all items show a profit. Determine if sales prices are actually based on costs or fixed and influenced by competition without regard to cost.

2. Appraise key production personnel, also constructions and age of buildings, noting those equipped with overhead cranes.
3. Determine if any improvements are planned and authorized, of if any were recently presented and disapproved.
4. Review planning and scheduling procedures.
5. Make casual inspection of property, plant, and equipment and note their condition. Determine age of machinery and if of reputable make.
6. Determine if production employees paid day-work exclusively, or both day-work and piece work, or if some other means of incentive is employed. If other than day-work pay is employed, obtain procedure and any formulas used in establishing the incentive.
7. Determine method of inspection employed.
8. Determine if all power is purchased, manufactured, or combinations of both.
9. Obtain general history of plant growth and rearrangements as far back as possible.
10. Check intrinsic value of patents and (if any) royalty paid on any products or parts produced.
11. Review past overhead charges and obtain explanation of the larger charges.
12. Obtain copies of the following:

    a. Plant plans and flow-charts
    b. Produce list, catalogues, or circulars
    c. Production schedules and forecasts
    d. Labor contracts
    e. Commitments
    f. List of machinery, equipment, fixtures and furniture
    g. Organization chart
    h. Labor utilization reports
    i. Equipment utilization reports
    j. Production reports
    k. Minutes of meetings
    l. Standard cost data

13. Examine union contracts, paying attention to any prior negotiations that are apt to reoccur.
14. Check out labor supply in various geographical areas impacted by company.

Industrial Relations

1. How many employees currently work for the company and what are the employee trends in prior year?
2. What is the labor turnover and what was the labor turnover trend for prior years?"
3. What is the absentee rate?"
4. Is the company unionized? How long? Contracts?
5. What is the labor dispute history?
6. Is the relationship between the company and employees friendly? Between the company and union?
7. Scope of Industrial Relations Department responsibilities
8. What executives participate in negotiations?
9. What procedures exist for:

a. Hiring
b. Firing
c. Promotion

10. What percentage of promotions comes from within?
11. What types of training programs exist? Is there a training department? Training Director?
12. Is there an active safety program?
13. How are pay rates determined?
14. How are fringe benefits determined?

Engineering and Research

1. Description and condition of facilities
2. To whom does the head of the Engineering Department report?
3. Is there a policy manual?
4. What are the short-range and long-range objectives?
5. Obtain department budget.
6. Determine employee turnover.
7. What is the source of engineering employees?
8. Who owns product designs, patents, copyrights, etc.?

Purchasing

1. Make complete analysis of inventory supply.
2. Determine existence of contracts and/or agreements for materials or outside services which are obligations that would have to be assumed.
3. Determine existence of a supplier's equipment or facilities on company property for which responsibility would have to be assumed.
4. Review the details of inventory including the following:
   a. Method, accuracy, and date of prices used
   b. Compare with current prices
   c. Evaluate inventory on basis of what material would bring on an open market
   d. Determine if material is used currently. Make certain that it is not obsolete and/or actually not usable.
5. Review the present employees in the Purchasing Department as to:
   a. Number of employees
   b. Experience
   c. Ability
   d. Personal habits
6. Review the functions of the Purchasing Department including:
   a. Policies
   b. Procedures
   c. Records

Legal

1. Does the seller have power to do the acts the deal requires?

   a. Legal power: SEC, state corporate laws, "Blue Sky" laws, etc.
   b. Corporate power: charter, bylaws, etc.

c. Contractual power: restriction in bank loan agreements, etc.

2. Does risk exist that seller's shareholders will attack deal as a merger, etc.?
3. Does risk of attack by creditors exist? Review need for compliance with Bulk Sales Act in an asset deal.
4. Is seller's corporation in good standing and qualified in all states in which its business requires same?
5. Is a voting trust needed?
6. If seller was organized within five years, determine names of promoters, nature of an amount of anything of value (including money, property, options, etc.) received or to be received by each promoter directly and indirectly.
7. Is there a material relationship between buyer (or any of its officers and directors) and seller (or any of its officer and directors)?
8. Will seller indemnify buyer against business brokers' and finders' fee?
9. Would the acquisition invite antitrust investigation or prosecution?
10. Are seller's beneficial contracts assignable?
    a. Licenses and royalty agreements
    b. Employment agreements
    c. Leases
    d. Suppliers' contracts
    e. Customers' contracts, particularly U.S. Government
    f. Collective-bargaining agreements
11. Are any of its beneficial contracts already subject to prior assignments - e.g. to lending institutions?
12. Are there customs or contracts which would place an obligation or duty on buyer in either a stock or an asset deal?
    a. Profit sharing plans
    b. Contributory employee stock-purchase or savings plans
    c. Restricted stock-option plans
    d. Pension and bonus plans
    e. Pattern of traditionally high salaries and fringe benefits
    f. Group insurance and similar employee benefit plans
    g. Check also 10a, b, c, d, e, and f
13. Obtain brief description of location and general character of principal plants and officers. If any such property is not owned or is held subject to a major encumbrance, so state and briefly describe how held (consider lease termination dates and powers to renew). Check:
    a. Liens for tax assessments
    b. Liens a/c partial payments, etc. on government contracts
    e. Restrictions, such as zoning, on use of real property and easements
14. Are all required federal and state tax returns filed, examined, and settled?
    a. Income and excess-profits taxes
    b. Franchise and capital stock taxes
    c. Sales and use taxes
    d. Real- and personal-property taxes
    e. Other excise taxes
15. Determine adequacy of all established reserves.
16. Examine re-negotiation procedures, settlements, and reserves.

17. Determine whether contracts with customers have re-determination clauses and minimum net exposure thereunder.
18. Determine whether contracts with suppliers and customers have escalation clauses and maximum net exposure thereunder.
19. How secure are seller's property rights in its:
    a. Patents
    b. Trademarks, trade names, and copyrights
    c. Goodwill
20. Is seller party to any unusual "confidential treatment" or "secret " agreements?
21. Does seller maintain adequate insurance on all insurable property and all reasonable risk? If not, has any significant event occurred with respect to an uninsured property or risk?
22. Review warranties to customers, particularly warranties of design. Determine whether reserves have been established and review history.
23. Does selling company presently have requisite amount of general and specialized legal counsel? Can or should they be continued or changed?
24. Will goodwill or other intangibles result from the transaction? Will the transaction produce the anticipated accounting result? Are any appraisers required?
25. Does seller have benefits under any contracts or other arrangements which would terminate or increase in cost following acquisition?
26. Will transaction result in any minority stockholders, or provide dissenting stockholders with any appraisal rights?

Marketing

1. Description of product line and brief company history.
2. Does the product line of subject company have anything in common with the lines produced by existing divisions of the buyer?
3. Ten-year record of the company's product sales performance and methods of distribution.
4. What reputation does the company enjoy among its customers?
5. Check the consistency of production covering the last three to five years for seasonal trends or diminishing demand for any products.
6. Long-range forecast of growth or contraction trends for this industry. What are the prospects of substitute materials, processes, or products?
7. Who are the customers? What is the long-range outlook for the future business of these customers?
8. Three- to five-year forecast of demand for the product, and estimate of industry's ability to supply.
9. An evaluation of the company's three- to five-year forecast of sales expectations (share of market).
10. Present competitors:
    a. Description of competitive products
    b. Location and size of plants
    c. Share of market
    d. Pricing policies
    e. Methods of distribution
    f. Reputation and financial details

11. Analysis of past price trends and policies and present or future pricing policies for the production line, considering:
    a. Competitive pricing
    b. Cost pricing
12. Analysis of present and potential customers:
    a. Major types of customers and percentage of sales to each
    b. Geographical location
    c. Buying habits
13. Analysis-location of plant:
    a. Competitive accessibility to major markets
    b. Distribution costs
14. Review and evaluate Sales Department:
    a. Sales management
    b. Organization and operating procedures
    c. Field sales force-compensation, turnover rate, sales training
    d. Sales policies
15. Review and evaluate advertising and promotion programs and policies:
    a. Objectives and techniques of the advertising program
    b. Analysis of principal elements of advertising budget
    c. Appraisal of advertising organization, personnel, and agency relationships
    d. Comparison of techniques and program with those of major competitors

Organization

1. Does the company have an organization chart?
    a. Is it maintained currently?
    b. Does it properly reflect the assigned functions?
2. Does the company have an organization manual which maintains organization charts and job descriptions?
    a. Is it maintained up to date?
    b. Do the job specifications properly reflect the jurisdiction, authority, and responsibility of the job?
3. Does the company have a policy manual containing the president's policy statements and the written interpretations of policy issued by the officers, executives, and general management?
4. Is there a program which is actively pursued to train and develop outstanding employees for management and executive positions?
5. Is there a program of individual executive ratings on an annual basis? If so, review the ratings pertaining to key personnel.
6. Does the company maintain an education program for its employees?
    a. What are the annual costs?
    b. What percentage of the employees participates in the program?
7. Does the company maintain a scholarship program? What are the annual costs?
8. Review the salary rates of key personnel.

Public Relations

1. Does the company have a Public Relations Department? Is it properly staffed? To whom does the public relations director, or the person responsible for the function, report?

2. Does the company have a planned public relations program? Does the program encompass the major public, including:
   a. Press
   b. Stockholders
   c. Financial community
   d. Plant communities
   e. Employees
   f. Customers
3. How does the above-mentioned public consider the company?
4. Does the company have an institutional advertising campaign?
5. Does the company employ outside public relations consultants?
6. Will the acquisition of the company be a public relations asset to the buyer?

Step 4: Negotiate

This step includes requirements for successfully reaching a definitive agreement. Deal teams should be briefed by due diligence teams, who together with executives should formulate the final negotiating strategy for all terms and conditions of the deal. Considerations include price, performance, people, legal protection, and governance.

Step 5: Integrate

The last step of the model should be customized to each organization and adapted to each specific deal. This is the actual process of planning and implementing the newly formed organization with its processes, people, technology, and systems. In determining how to resolve the issues that arise at this stage, the merging organizations must carefully consider such questions as how fast to integrate, how much disruption will be created, how disruption can be minimized, how people can be helped to continue focusing on customers, safety, and day-to-day operations, and how to best communicate with all the stakeholder groups of the company.

Exhibit 2 outlines the previously discussed Watson Wyatt Deal Flow and the processes and issues involved.

EXHBIT 2
MAP OF M&A PROCESSES AND ISSUES

	Formulate	*Locate*	*Investigate*	*Negotiate*	*Integrate*
Key Activities	• Set business strategy • Set growth strategy • Define acquisition criteria • Begin strategy implementation	• Identify target markets and companies • Select target • Issue letter of Intent • Develop M&A Plan • Offer letter of confidentiality	• Due diligence analysis: 1. Financial 2. People/Culture 3. Legal 4. Environmental 5. Operational 6. Capitals • Finding summary • Set preliminary integration plans • Decide negotiation parameters	• Set deal terms: 1. Legal 2. Structural 3. Financial • Secure key talent and integration teams • Close deal	• Finalize and execute integration plans: 1. Organization 2. Process 3. People 4. Systems
Issues Risks	• Costs • Channels • Content • Competencies • Customers • Countries • Capital • Capacity	• ROI/ Value • Strategic Fit • Cultural Fit • Timing • Leadership Fit • Potential synergy • Viability	• Liabilities • Human Capital • retention/eliminate • Financial Viability • Integration Issues • Synergies • Economy of scale • ROI	• Price • Performance • People • Protection • Governance	• Speed • Disruption • Costs • Revenues • Results • Perception: 1. Shareholders 2. Public 3. Customers 4. Employees

PROS AND CONS OF A MERGER

There are many reasons why your company may prefer external growth through mergers instead of internal growth.

Advantages of a Merger

- Increases corporate power and improves market share and product lines.
- Aids in diversification, such as reducing cyclical and operational effects.
- Helps the company's ability to raise financing when it merges with another entity having significant liquid assets and low debt.

- Provides a good return on investment when the market value of the acquired business is significantly less than its replacement cost. Studies suggest that the shareholders of target firms that are acquired receive the greatest benefit.
- Improves the market price of stock in some cases, resulting in a higher P/E ratio. For example, the stock of a larger company may be viewed as more marketable, secure, and stable.
- Provides a missed attribute; that is, a company gains something it lacked. For instance, superior management quality or research capability may be obtained.
- Aids the company in financing an acquisition that would not otherwise be possible to obtain, such as where acquiring a company by exchanging stock is less costly than building new capital facilities, which would require an enormous cash outlay. For instance, a company may be unable to finance significant internal expansion but can achieve it by purchasing a business already possessing such capital facilities.
- Achieves a synergistic effect, which means that the results of the combination are greater than the sum of the parts. For instance, greater profit may result from the combined entity that would occur from each individual company due to increased efficiency (e.g., economies of scale) and cost savings (e.g., eliminating overlapping administrative functions, volume discounts on purchases). There is better use of people and resources. A greater probability of synergy exists with a horizontal merger since duplicate facilities are eliminated. *Operational synergy* arises because the combined firm may be able to increase its revenues and reduce its costs. For example, the new firm created by a horizontal merger may have a more balanced product line and a stronger distribution system. Furthermore, costs may be decreased because of economies of scale in production, marketing, purchasing, and management. *Financial synergy* may also result from the combination. The cost of capital for both firms may be decreased because the cost of issuing both debt and equity securities is lower for larger firms. Moreover, uncorrelated cash flow streams will provide for increased liquidity and a lower probability of bankruptcy. Still another benefit is the availability of additional internal capital. The acquired company is often able to exploit new investment opportunities because the acquiring company has excess cash flows. *Note:* Synergy equals the value of the combined firm minus the sum of the values of the separate firms. These values can be calculated using the capital budgeting technique of discounted cash flow analysis. The difference between the cash flows of the combined firm and the sum of the cash flows of the separate firms is discounted at the appropriate rate, usually the cost of equity of the acquired firm. The components of the incremental cash flows are the incremental revenues, costs, taxes, and capital needs.
- Obtains a tax loss carryforward benefit if the acquired company has been losing money. The acquirer may utilize the tax loss carryforward benefit to offset its own profitability, thus reducing its taxes. Note, however, that Section 382 of the IRC sets the limit as to how much net operation losses an organization that has just undergone an ownership change can deduct from its income. The maximum deductible amount is derived by multiplying the value of the old loss corporation's stock prior to the change in ownership by the long term tax exempt rate. It's usually 4-7% of the actual loss that is able to be utilized.
- Use surplus cash from a tax perspective. Dividends received by individual shareholders are fully taxable, whereas the capital gains from a combination are not taxed until the shares are sold. In addition, amounts remitted from the acquired to the acquiring firm are not taxable. The combined firm's capital structure also may allow for increased use of debt financing, which results in tax savings from greater interest reductions.

Disadvantages of a Merger

- Reverse synergies which reduce the net value of the combined entity (e.g., adjustments of pay scales, costs of servicing acquisition debt, defections of key acquired company staff).
- Adverse financial effects because the anticipated benefits did not materialize; for example, expected cost reductions were not forthcoming.
- Antitrust action delaying or preventing the proposed merger.
- Problems caused by dissenting minority stockholders.

Note: A proxy fight is an attempt by dissident shareholders to gain control of the corporation, or at least gain influence, by electing directors. A proxy is a power of attorney given by a shareholder that authorizes the holder to exercise the voting rights of the shareholder. The proxy is limited in its duration, usually for a specific occasion like the annual shareholders' meeting. The issuer of a proxy statement must file a copy with SEC ten days prior to mailing it to shareholders all material information concerning the issues. A form that indicates the shareholder's agreement or disagreement must be provided. Also, if the purpose is for voting for directors, proxies must be accompanied by an annual report.

In evaluating a potential merger, you have to consider its possible effect upon the financial performance of the company, including:

- *Earnings per share.* The merger should result in higher earnings or improved stability.
- *Dividends per share.* The dividends before and after the merger should be maintained to stabilize the market price of the stock.
- *Market price of stock.* The market price of the stock should be higher or at least the same after the merger.
- *Risk.* The merged business should have less financial and operating risk than before.

A merger of two companies may be achieved in one of two ways. The acquirer may negotiate with the management of the prospective acquired company, which is the preferred approach. If negotiations are not successful, the acquirer may make a tender offer directly to the stockholders of the targeted company. A *tender offer* represents a cash offer for the common shares held by stockholders. The offer is made at a premium above the current market price of the stock. In some cases, the tender may be shares in the acquiring company rather than cash. Minority shareholders are not required to tender their shares. Consequently, not all of the target firm's stock is usually tendered. Usually an expiration date exists for the tender.

Note:

1. Corporate takeover specialists prefer tender offers because proxy fights can be prolonged by target firm management. With less time to organize a defense, target management is less effective than when they contest proxy fights.
2. A good takeover candidate includes a cash-rich business, a company with a low debt-to-equity ratio, and a company with significant growth potential.
3. In a two-tier offer, better terms are offered to shareholders who sell early. For example, early sellers may receive cash and late sellers, bonds.

4. Leverage buyout (LBO) is used as a defensive tactic against a hostile takeover by tender offer. A leveraged buyout (LBO) entails the company going private. A small group of investors, usually including senior management purchases the publicly owned shares. The shares will then be delisted because they will no longer be traded. Thus, an LBO competes with a hostile tender offer as alternative.

In discussions with management, the acquirer typically makes a stock offer at a specified exchange ratio. The merger may take place if the acquired company receives an offer at an acceptable premium over the current market price of stock. Sometimes contingent payments are also given, such as stock warrants.

There are several financing packages that buyers may use for mergers, such as common stock, preferred stock, convertible bonds, debt, cash, and warrants. A key factor in selecting the final package is its impact on current earnings per share (EPS).

If common stock is exchanged, the seller's stock is given in exchange for the buyer's stock, resulting in a tax-free exchange. The drawback is that the stock issuance lowers earnings per share because the buyer's outstanding shares are increased. When there is an exchange of cash for common stock, the selling company's stockholders receive cash, resulting in a taxable transaction. This type of exchange may increase EPS since the buying company is obtaining new earnings without increasing outstanding shares.

GUIDELINES

In an effort to provide guidelines as to what type of business combinations would and would not be challenged in antitrust actions, the Justice Department developed the Herfindahl-Hirshman Index. It essentially breaks all business combinations into the three broad types: horizontal integration, vertical integration, and conglomeration.

Market Share Squared	**Likelihood of Challenge**
Less than 1,000	Unlikely
1,000 – 1,800	Possible
More than 1,800	Likely

Consider this hypothetical market share breakdown in the widget industry:

	Widget Industry Market Share Data **Market Share**	**Market Share Squared**
Company A	41%	1,681
Company B	26%	676
Company C	18%	324
Company D	8%	64

Company E	5%	25
Company F	2%	4

Note: The Federal Trade Commission (FTC), in conjunction with the antitrust division of the Justice Department, has broad authority to enforce the antitrust laws. Since mergers may lessen competition or tend to create a monopoly under the terms of the Clayton Act, they are scrutinized by the FTC and the Justice Department.

What does this mean?
It is obvious that Company A cannot combine with either Company B or C, but how about Company E? Company A would be prohibited from combining with any other company. Combining the market shares of Company A and any other company and then squaring them would produce a number higher than 1,800.

Wrong Calculation

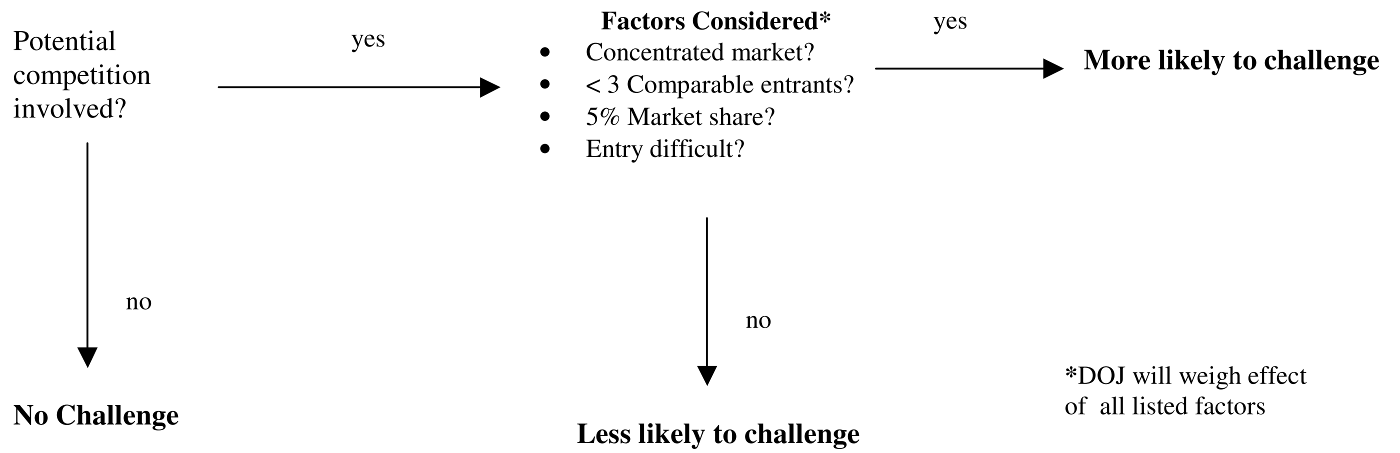
	Market Share	*Market Share Squared*
Company A	41%	1,681
Company F	2%	4
		1,685

Note: Do not make this mistake unless you are hungry for attention by the antitrust division of the Justice Department.)

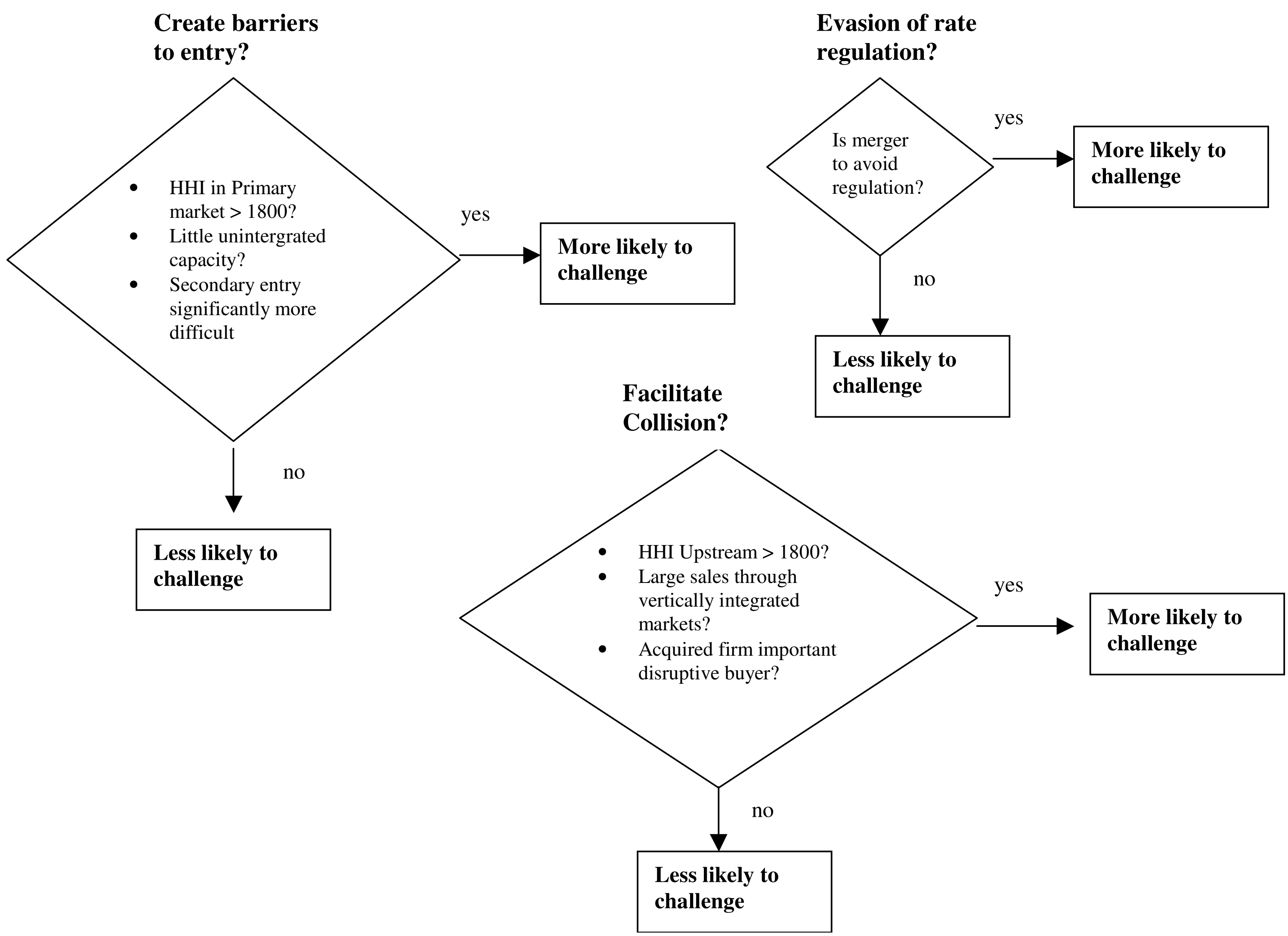
Correct Calculation

	Market Share	*Market Share Squared*
Company A	41%	
Company F	2%	
	43%	1,849

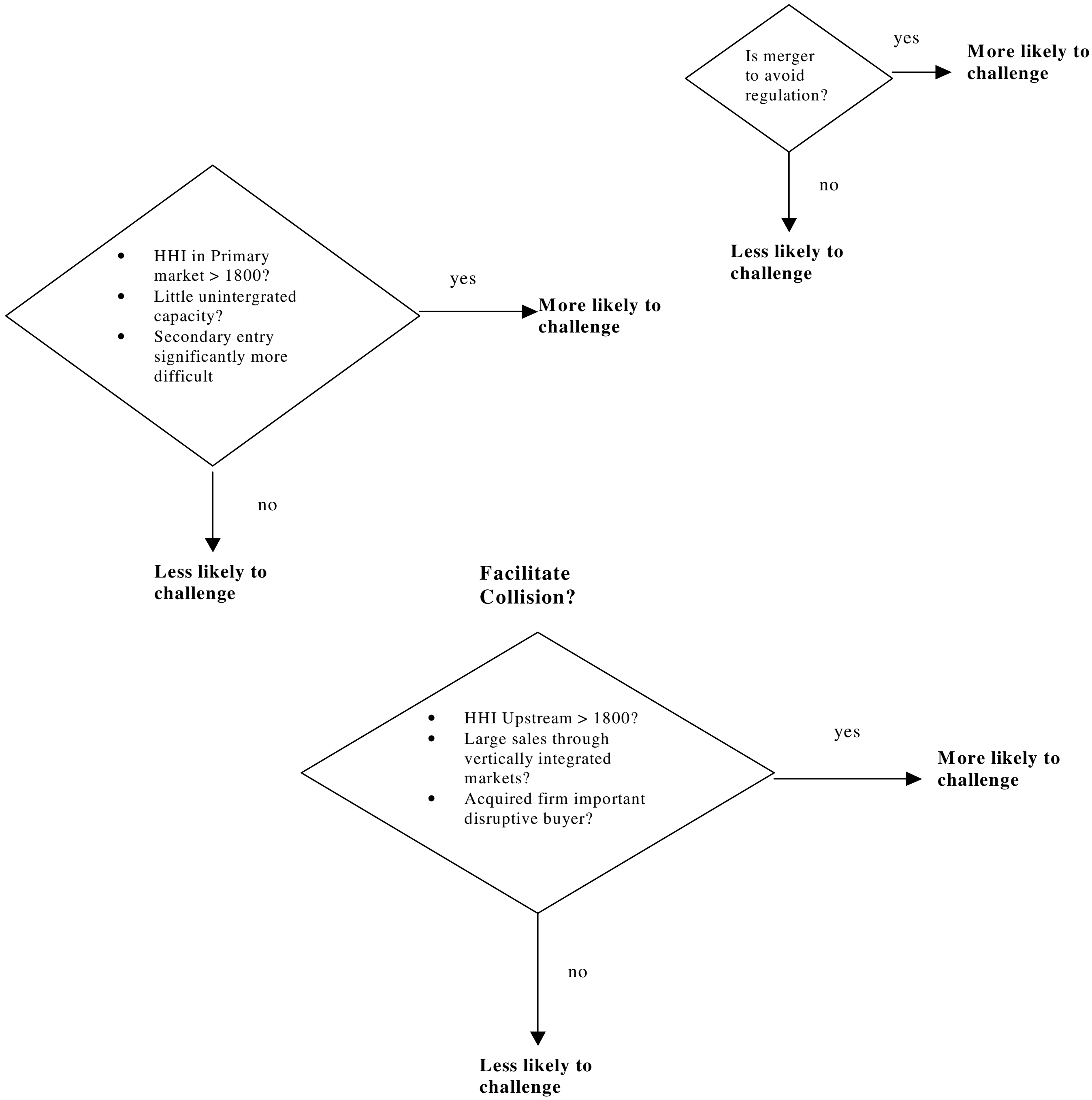
CONGLOMERATE MERGERS



VERTICAL MERGERS



HORIZONTAL MERGERS



The following summarizes M&A percent rules.

M & A PERCENT RULES

100%	Absolute control of company
80%	Threshold for tax-free deals
50% + 1 share	Control, but minority interests may cause heartburn
15% - 25%	When stock is widely-held (no big blocks held by individuals) 15 to 25 percent provides effective control over the company. This is generally true because in a proxy battle, management and stockholders would each obtain about 50 percent of the uncommitted shares.
5%	Threshold when public must be notified of the purchaser's intent.

PLANNING FOR MERGERS AND ACQUISITIONS

Perhaps the most striking aspect of corporate mergers and acquisitions is the seemingly random dispersion of the successes and failures among such combinations. For every well-publicized case of "one plus one equals more than two" there seems to be another (albeit less well publicized) in which one plus one equals, if not exactly zero, at any rate substantially less than two.

Obviously some mergers are good, and others are fatal. It would be naive to assert that the good mergers are always the result of effective planning and the careful study of facts, while the fatal ones are invariably the result of management by inspiration. Experience does suggest, however, that there is more than a chance relationship between planning and success in corporate combinations. Smart management takes the time and effort to study each prospective combination in such detail as is necessary to permit a well-thought out decision. Such a study invariably begins with a clear understanding of just what it is that the company hopes to achieve through the combination in question.

Defining Objectives

Why are there such things as corporate mergers and acquisitions? At the risk of oversimplification, it might be helpful if we arranged some of the more common reasons for business combinations into a few broad categories:

1. *Market considerations.* One frequent merger objective is to capture a greater share of the market which the company serves. A merger may make it possible for the company to offer a complete product line for the first time, or it may expand the geographic area in which the company sells its goods. Foreign acquisitions are frequently made for this latter reason.
2. *Distribution economies.* Often a single distribution system (including salesmen, jobbers,

dealers, retail outlets, and, of course, transportation facilities) can handle two products having common, or at least similar, markets *and* distribution methods at a lower unit cost than it can a single product.

3. *Diversification.* Many companies embark on merger programs to avoid the cyclical effect of a single industry, to minimize the impact of adverse conditions in a particular market, and/or to be able to participate in new growth areas.
4. *Manufacturing advantages.* By combining two manufacturing units, weaknesses can often be strengthened, overcapacity eliminated, and overhead reduced. Seasonal problems, particularly, can often be solved in this way.
5. *Research and development needs.* R&D cost is becoming an increasingly important element of overhead in almost every field of business and industry. Common laboratories and other R&D facilities frequently result in a reduction in research cost per unit of production.
6. *Financial considerations.* The purpose of a merger is often to secure higher earnings per share and an improved image in the marketplace and consequently a higher price/earnings ratio or to achieve greater financial security and stability.
7. *Redeployment of excess capital.* Many insurance companies have millions of dollars in low-yield securities in excess of their reserve requirements.
8. *Personnel considerations.* This is most commonly a motive of service organizations. Frequently a merger is undertaken to provide key personnel for an organization weakened through death or through failure to plan ahead for orderly management succession.
9. *Complexity and automation.* The business world is becoming increasingly complex. A small enterprise unable to support a staff of specialists or to afford the cost savings available to larger entities through automation may seek refuge in a merger with a larger operation. Similarly, two small companies, neither of which is able to afford these necessities, may join to create an organization of sufficient size to cope with the growing complexity of business life and to compete with larger operations.

A review of these considerations will at least serve to start management thinking in an orderly, logical way about the possibility of merger. Could your company benefit in any of the areas outlined above? If so, you have the beginning of a merger plan. This plan must be carefully developed by top management until the specific objectives of your merger program are clearly defined and understood.

Defining Criteria

A major product of the acquisition planning process is the definition of detailed acquisition criteria for each area where acquisition appears to be a viable alternative to internal growth. A list of criteria should resemble a purchase order, describing the most desirable candidate imaginable. A typical list would include such factors as the following:

- Industry or industry segment
- Method of distribution
- Size
- Geographic constraints
- Particular strengths

- Importance of management continuation
- Preferred consideration (cash or stock)
- Maximum price

Admittedly, it is unlikely that a willing and available dream candidate will be identified, but it is important to create a benchmark against which to evaluate candidates. Weighting the importance of each characteristic, either formally or informally, also aids in the candidate-screening process and in ranking candidates in order of attractiveness.

Finding and Screening Candidates

The next step is to find companies that will fit the overall plan. Is the secrecy of the plan important? If so, the problem of finding available companies becomes considerably more difficult. Most managements under these circumstances have found that secrecy is a relative term. The old cynic's saw, that two can keep a secret if one of them is dead, has a great deal of support among those who have been involved in mergers. In most cases the best approach is to throw open the doors and cry in the marketplace that you are interested in a purchase or merger. In practice this can be accomplished simply by passing the word, either personally or by advertisement, to your business friends, lawyers, brokers, and bankers that you are associated with.

It is generally desirable to establish two or three benchmarks against which to measure prospective acquisitions to decide whether they are worth pursuing further. Since this is a first rough screening, the criteria should be as objective as possible, and capable of simple application on the basis of readily available data. Some illustrative benchmarks are:

- A price/earnings ratio not more than 10 percent higher than ours; or
- A growth rate for the last five years of 12 percent per annum, compounded annually.

Your first screening will, of course, let through some bad deals. More seriously, the application of any arbitrary criteria is likely to eliminate some desirable deals. But where there is a large number of a choice, an arbitrary method of elimination is better than none at all.

The process of identifying prospective acquisition candidates begins with building a universal list of all companies that appear to meet the criteria. Multiple sources should be consulted. Easily accessible electronic databases generally can provide 80 to 90 percent of the names with some amount of additional information. Other sources of candidate information include the following:

- Trade association membership lists
- Trade publications
- Industry experts
- Government publications
- Acquirer's employees—purchasing, sales, and so on
- Public library

Naturally, the law of diminishing returns applies to the last few names, but more than 95 percent of the qualified candidates that exist can be identified easily.

Screening several hundred companies to identify the most attractive candidates sounds like a difficult and time-consuming task. Actually, applying unequivocal knockout criteria such as size or location quickly reduces the number of companies to a manageable number. Comparing the remainder against the other criteria should produce ten or fifteen priority candidates. The task of gathering comprehensive information regarding that smaller number of candidates is not nearly as formidable.

The prospect identification process also gives the acquirer a feel for the dynamics of the targeted industry. Competitive conditions, industry growth trends, profit margins, and other important data can easily be gathered at the same time. Analyzing the characteristics that distinguish high-performing industry participants is also a useful exercise.

Once the internal process is complete, it is important to turn to external sources of prospective candidates— financial intermediaries. Typically, an investment banker or broker is present in about two thirds of all merger transactions. Contact with intermediaries should be established to get an early look at as many opportunities as possible—to be plugged into the "deal flow."

DECIDING ON ACQUISITION TERMS

In deciding on acquisition terms, consideration should be given to the following:

- Earnings in terms of absolute dollars and percentage change
- Dividends
- Market price of stock
- Book value per share
- Net working capital per share

The weight assigned to each of the above varies with the circumstances involved.

Earnings

In determining the value of earnings in a merger, you should take into account anticipated future earnings and projected P/E ratio. A rapidly growing company is expected to have a higher P/E multiple.

Dividends

Dividends are attractive to stockholders. However, the more a company's growth rate and earnings, the less is the impact of dividends on market price of stock. On the other hand, if earnings are falling, the effect of dividends on per share is greater.

Market Price of Stock

The price of a security considers projected earnings and dividends. The value assigned to the company in the acquisition will most likely be greater than the present market price in the following instances:

- The business is in a depressed industry.
- The acquired company is of greater value to the acquirer than to the stock market in general.
- A higher market price than the current one is offered to induce existing stockholders to give up their shares.

Book Value per Share
Since book value is based on historical cost rather than current value, it is not a key factor to consider. However, when book value exceeds market value, there may be an expectation that market price will increase subsequent to the merger due to improved circumstances (e.g., superior management).

Net Working Capital per Share
If the acquired company has very low debt or very liquid assets, the acquirer may borrow the funds for the acquisition by using the acquired company's strong liquidity position.

GRADING CRITERIA

In acquisition strategy, document what a firm wants to accomplish by the acquisition and how the acquisition will complement the company's overall strategy. Industries and companies are then screened by employing various quantitative measures and considering qualitative factors. The broad industry sectors should be narrowed down by comparing each industry to specified industry criteria. The industry best satisfying set goals is then selected. After the target industry has been identified, companies in that industry are then screened. Make sure to compare the target's trend to industry averages to determine the company's relative position.

In identifying an acquisition target, clearly defined criteria should be established for acceptable candidates, all companies within the category should be reviewed, suitable companies should be listed in priority order, and a short list of targets (generally no more than 10) coming closest to the ideal profile should be prepared. This short list can either consist of the highest-scoring companies regardless of score or all companies. The profile criteria include what is important to you, such as industry classification, size, profitability, leverage, market share, and geographic area. You may not be able to get your first choice, so flexibility is needed.

Different criteria should have different weights depending upon importance to you. For example, the weight may go from 1 (least important) to 10 (most important). For example, you may decide to assign a 1 to dividend history and a 10 to industry. Most criteria will fall between 1 and 10 (e.g., leverage may be assigned a weight of 2 because all candidates have already been screened to have a debt-to-equity ratio below 25%). Intermediate attributes within a range may also be scored. For example, revenues under $100 million or above $300 million may be given a score of 4. An illustrative grading guide follows.

Illustrative Grading Guide:

Industry Classification

1 = specialty shops, diversified companies in which food products retailing is only minor
10 = convenience store chain

Size
1 = revenues under $10 million or over $40 million
10 =revenues of $30 million

Fixed Assets (book value)
1 = $2 million
10 = over $5 million

Net Income

1 = profit margin below 2%
5 = profit margin above 10%

Leverage

1 = over 40% debt-to-equity ratio
10 = below 5% debt-to-equity ratio

Geographics

1 = West
5 = South
10 = Northeast

You can save time by using a computer database to find possible target companies. The database enables you to select ranges for size, profitability, leverage, and so on and then screen out candidates fulfilling your requirements. Information on publicly held companies is much more available than for closely held businesses.

FACTORS IN DETERMINING A PRICE

There are many factors to be considered in determining the price to be paid for a business including:

- Financial health of the acquired company (e.g., quality of earnings, growth rate, realizability of assets)
- Type and stability of operations
- Maturity of business
- Degree of competition
- Tax consequences, such as unused tax credits
- Expected return on assets and sales
- Employee relations, such as the absence of unionization
- Risk level, such as having adequate insurance

- Corporate characteristics, including having negatively correlated product lines, and favorable lease terms
- Management quality, such as experienced executives
- Marketing position, such as quality product line, market share, distribution channels, and customer base
- Economic environment, including recession-resistant business
- Political environment, such as the absence of strict governmental regulation and operations in politically unstable areas
- Structure of the arrangement, including debt or equity, cash or stock, costs of the transaction, and time period
- Improvement in diversification and/or integration
- Ease of transferability of ownership
- Exchange rate fluctuations
- Legal issues, such as the possibility of stockholder liability suits
- Industry characteristics, such as being in a growing industry instead of a declining one
- Impact of the acquisition on the acquiring company's financial strength and operation performance.
- Possible violation of antitrust laws. These laws are administered by the Department of Justice's Antitrust Division and the Federal Trade Commission.

When looking at the targeted company, review both the positive and negative effects. Proper assessment can be made on what to pay for the candidate by examining what will happen after the merger. If the analysis includes many uncertain factors, sensitivity analysis may be used to look at the effect of changes in outcome.

Be Careful: Detailed financial planning and analysis are required in the acquisition process. If an acquiring company overpays for a target company, this negatively affects its financial position. Many of the deals behind some of the record corporate write-offs of the past few years (e.g., 2005-2006) can be characterized as acquirers paying too much to buy faster-growing companies that they may - or may not - have been well positioned to manage and integrate.

ACQUISITION STRATEGY AND PROCESS

A brochure should be prepared by the buyer so the target company may be acquainted with the buyer's objectives, philosophy, and background. A proposal should also be prepared explaining to the target company the financial and operating benefits of a merger.

Planning to integrate the acquired company into the buyer should take place early in the acquisition process. Areas requiring planning include policies and procedures, data processing, organizational and management structure, personnel, operations, financial reporting, customer base, and supplier relationships.

After discussions become serious, the investigation of the target company should involve reviewing available financial information and audit work papers, tax returns, visiting the target's facilities, and interviewing management (e.g., research and development programs, manufacturing and distribution methods). There should be a purchase audit, particularly to "key" accounts and exposure areas to uncover problems and issues not fully disclosed in the financial statements. For example, inventory should be observed and counted and a determination made whether their valuation in the financial records is appropriate. The purchase audit must consider financial, accounting, and operating matters. Outside consultants may need to be retained in specialized areas (e.g., technology, product capability).

The areas of investigation include:

- Industry (e.g., competition, growth rate, governmental regulation, barriers to entry).
- Target company background and history (e.g., nature of business, locations and facilities, lawsuits, environmental considerations).
- Financial and accounting information (e.g., ratios by major business segment, effect of inflation or recession on company, current values). The financial statements for the last three years should be reviewed.
- Taxes (e.g., tax attributes of target, tax-planning strategies). Tax returns should be reviewed and analyzed for the last three years. Financial income and taxable income should be reconciled. Does the state penalize multi-state enterprises? Will foreign countries impose significant tax burdens? What tax benefits will the purchase accomplish (e.g., available tax credits)? Are there any questionable items or limitations that may be challenged by the tax authorities?
- Management quality (particularly important when moving into an unrelated industry).
- Pension and health care obligations.
- Marketing (e.g., backlog, new product developments, obsolescence problems).
- Manufacturing (e.g., production facilities, manufacturing processes and efficiencies).
- Distribution network, facilities, and methods.
- R&D experience.

FINANCING OF THE MERGER

The range of possible transaction structures is infinite, but the following are some of the basic alternatives:

- All cash transaction, financed from existing cash resources
- All cash transaction, financed by issuing stock
- Stock transaction, merger through exchange of stock
- Mixed stock/cash
- Leveraged cash transaction, financed through debt issue
- Leveraged buyout, majority of equity replaced by debt
- Debt transaction, debt offered to selling company shareholders
- Mixed cash/debt
- Preferred stock

Should stock or assets (generally cash) be given in the acquisition?

Advantages of Giving Stock

- No cash or financing requirement for acquirer.
- Quick and simple in terms of document preparation. There is a transfer of stock certificates in exchange for immediate or deferred payment.
- In certain cases, stock transactions can be exempt from taxation to shareholders, thus potentially raising the value of the transaction.
- A stock acquisition can maintain the equity-to-assets ratio, and even provide additional capital for further growth strategies.
- Target shareholders share risk of acquisition.
- Minority stockholders may not have appraisal rights.
- Typically, stockholder votes authorizing the purchase or sale are not required.
- May take advantage of acquirer's high stock price.
- Target management has incentive to maintain commitment.

Disadvantages of Giving Stock

- Can be less attractive to target shareholders.
- The acquirer, in buying stock of the target company, assumes its liabilities, whether disclosed or not.
- Dilution of acquirer shareholder earnings.
- Dilution of ownership/control.
- Risk of conflict after merger.
- If the target is liquidated subsequent to acquisition, much work is needed in conveying the target company's assets as part of the liquidation.

Advantages of Giving Assets

- Acquirer has complete control over the assets it buys and the liabilities it assumes.
- Attractive to shareholders because they value immediately and have no risk.
- Typically, no acquiring company stockholder vote is needed.
- Easier to understand.

Disadvantages of Giving Assets

- Dilution of earnings.
- Difficult to determine the fair value of each asset.
- Current target management may have little incentive to facilitate transaction or maintain commitment after transaction.
- Target company's stockholders must approve.
- State transfer taxes must be paid.
- A cash acquisition can materially lower the equity to assets ratio of the surviving company.
- Creditor agreement may be needed for certain transfers and assignments.
- Must conform to bulk sales laws.

If the decision is made to give cash to the targeted company shareholders, some form of equity and/or debt will have to be issued because it is unusual for the acquiring company to have sufficient cash or liquid assets to finance the entire transaction. Debt financing may range from an intermediate-term loan for part of the purchase price to structural debt financing of 90% or more of the price (leveraged buyout). There are many considerations in deciding whether to use leverage and in determining the appropriate amount of leverage.

Advantages of Leverage

- Interest expense is tax deductible.
- Increased return to shareholders.
- Since shareholders' ownership is maintained, there is a lack of dilution.

Disadvantages of Leverage

- Creditors have priority claim on merged company.
- The greater financing risk may lower the company's stock and bond prices as well as result in increasing costs of financing.
- Possible lowering in credit standing and bond ratings.
- A cash problem may result in default.
- Interest payments lower earnings.
- Interest and principal payments reduce cash flow.

Leveraged buyouts are quite popular. A leveraged buyout occurs when an entity primarily borrows money (sometimes 90% or more) in order to buy another company. Typically, the acquiring company uses as collateral the assets of the acquired business. Generally, repayments of the debt will be made from the yearly operating funds flow of the acquired company. A leveraged buyout may also be made when the acquiring company uses its own assets as security for the loan. It may also be used if a firm wishes to go private. In most cases, the stockholders of the acquired company will receive an amount greater than the current price of the stock. A leveraged buyout involves more risk than an acquisition done through the issuance of equity securities.

The high debt service requirement drains cash flow during the period that the debt is outstanding. However, once debt is retired, shareholders enjoy ownership of the remaining enterprise. The debt may be reduced rapidly by selling some assets or divisions of the acquired company, if warranted.

The characteristics conducive to a leveraged buyout are:

- The earnings and cash flow of the company must be predictable so they may cover interest and principal payments on the debt financing.
- The growth rate of the firm should exceed the inflation rate.
- There must be a good market share and product line otherwise the firm is vulnerable to an economic decline or competitive actions.
- There should be a good asset base to serve as collateral.
- The assets should not be presently encumbered and the debt-equity ratio should currently be low.
- There are minimal capital expenditure requirements.
- The company should be liquid so that it has enough cash to meet its debt obligations.
- There is future salability of the company, if desired.

- Technological change is not a problem.
- Management is highly qualified and is given a significant equity stake.
- The business is selling at a low P/E ratio.

Preferred Stock Financing

One important development in 2001 is the disappearance of the pooling-of-interests merger-accounting method, which required the use of common stock. Now, companies must employ purchase accounting, regardless of payment terms. And stock offers no advantage in purchase accounting. This is a method with which the purchasing company treats the target firm as an investment, adding the target's assets to its own fair market value. If the amount paid for a company is greater than fair market value, the difference is reflected as *goodwill.*

Preferred stock is one tool companies may now employ more frequently in financing their acquisitions. Like corporate bonds, preferred shares offer investors a predictable income stream, in the form of dividends that must be paid before any distributions to common shareholders. While those preferred dividends can't be deducted for tax purposes, as interest payments on debt are, preferred shares offer the same equity relief for stressed corporate balance sheets that common stock does.

A big advantage of equity is its ability to preserve a transaction's tax-free status for selling shareholders. For an acquisition to qualify as a tax-free reorganization, sellers must maintain a "continuity of interest" in the new business. That's usually accomplished by a common share swap, but preferred shares can also do the trick.

THE USE OF CAPITAL BUDGETING TECHNIQUES IN APPRAISING THE ACQUISITION

In deciding whether to buy another business, capital budgeting may be used. Also, the effect of the new capital structure on the firm's overall cost of capital has to be projected.

EXAMPLE 1

W Company is contemplating purchasing P Company for $95,000. W's current cost of capital is 12%. P's estimated overall cost of capital after the acquisition is 10%. Projected cash inflows from years one through eight are $13,000. (Assume no residual value.)

The net present value is:

Year	Present Value
0 (-$95,000 x 1)	($95,000)
1-8 ($13,000 x 5.3349)	+ 69,354*
Net present value	($25,646)

*Using 10% as the discount rate, from Table 2 (Present value of an annuity of $1).

The acquisition is not feasible since there is a negative net present value.

EXAMPLE 2
C Company wants to buy some fixed assets of B Company. However, the latter wants to sell out its business. The balance sheet of B Company follows:

Assets	
Cash	$ 4,000
Accounts receivable	8,000
Inventory	10,000
Equipment 1	16,000
Equipment 2	28,000
Equipment 3	42,000
Building	110,000
Total assets	$218,000
Liabilities and Stockholders' Equity	
Total liabilities	80,000
Total equity	138,000
Total liabilities and equity	$218,000

C wants only equipment 1 and 2 and the building. The other assets excluding cash, can be sold for $24,000. The total cash received is thus $28,000 ($24,000 + $4,000 initial cash balance). B desired $50,000 for the whole business. C will thus have to pay a total of $130,000 which is $80,000 in total liabilities and $50,000 for its owners. The actual net cash outlay is therefore $102,000 ($130,000 - $28,000). It is expected that the after-tax cash inflows from the new equipment will be $27,000 per year for the next five years. The cost of capital is 8%. (Assume no residual value.)

The net present value of the acquisition is:

Year	Present Value
0 (-$102,000 x 1)	($102,000)
1-8 ($27,000 x 3.9927)	107,803
Net present value	$5,803

Since there is a positive net present value the acquisition should be made.

EXCHANGE RATIO

T Company buys B Company. T Company's stock sells for $75 per share while B's stock sells for $45. As per the merger terms, T offers $50 per share. The exchange ratio is 0.667 ($50/$75). Thus, T exchanges 0.667 shares of its stock for one share of B.

EFFECT OF MERGER ON EARNINGS PER SHARE AND MARKET PRICE PER SHARE

A merger can have a positive or negative impact on net income and market price per share of common stock.

EXAMPLE 3

Relevant information follows:

	Company A	Company B
Net income	$50,000	$84,000
Outstanding shares	5,000	12,000
EPS	$10	$7
P/E ratio	7	10
Market price	$70	$70

Company B acquires Company A and exchanges its shares for A's shares on a one-for-one basis. The effect on EPS follows:

	B Shares Owned after Merger	EPS before Merger	EPS after Merger
A stockholders	5,000	$10	$7.88*
B stockholders	12,000	7	7.88*
Total	$17,000		

*Total net income is determined as:

5,000 shares x $10	$50,000
12,000 shares x $7	84,000
	$134,000

$$\text{EPS} = \frac{\text{Net income}}{\text{Total shares}} = \frac{\$134{,}000}{17{,}000} = \underline{\$7.88}$$

EPS decreases by $2.12 for A stockholders and increases by $0.88 for B stockholders.

The effect on market price is not clear. Assuming the combined entity has the same P/E ratio as Company B, the market price per share will be $78.80 (10 x $7.88). The stockholders experience a higher market value per share. The increased market value occurs because net income of the combined entity is valued at a P/E ratio of 10, the same as Company B, while before the merger Company A had a lower P/E multiplier of 7. However, if the combined entity is valued at the lower P/E multiplier of 7, the same as Company A, the market value would be $55.16 (7 x $7.88). In this case, the stockholders in each firm experience a reduction in market value of $14.84 ($70.00 - $55.16).

Since the effect of the merger on market value per share is not clear, the crucial consideration is EPS.

EXAMPLE 4
The following situation exists:

Market price per share of acquiring company		$100
Market price per share of acquired company		$20
Price per share offered		$24
The exchange ratio equals:		
Shares	$24/$100	0.24
Market price	$24/$20	1.2

EXAMPLE 5
M Company wants to buy J Company by issuing its shares. Relevant information follows:

	M Company	J Company
Net income	$40,000	$26,000
Outstanding shares	20,000	8,000

The exchange ratio is 2 to 1. The EPS based on the original shares of each company follows:

EPS of combined equity = Combined net income/Total shares

			EPS
66000	=	66000	=1.83
20,000 + (8,000 x 2)		36,000 shares	
EPS of M		= $1.83	
EPS of J		= $1.83 x 2	= $3.66

EXAMPLE 6
O Company wants to buy P Company by exchanging a 1.8 shares of its stock for each share of Company P. Company O expects to have the same P/E ratio after the merger as before. Applicable data follows:

	O Company	P Company
Net income	$500,000	$150,000
Shares	225,000	30,000
Market price per share	$50	$60

The exchange ratio of market price equals:

Offer price	$50 x 1.8	=90	= 1.5
Market price of P	$60	$60	

EPS and P/E ratios for each company follow.

	O Company		P Company	
EPS	$500,000/225,000	= $2.22	$150,000/30,000	= $5
P/E Ratio	$50/$2.22	=22.5	$60/$5	= 12

The P/E ratio used in obtaining P is:

$$\frac{1.8 \text{ x } \$50}{\$5} = \frac{\$90}{\$5} = 18 \text{ times}$$

The EPS of O after the acquisition is:

$$\frac{650000}{225{,}000 + (30{,}000 \text{ x } 1.8)} = \frac{\$650{,}000}{279{,}000 \text{ shares}} = \$2.33$$

The expected market price per share of the combined entity is:

$2.33 x 22.5 times = $52.43

RISK OF THE ACQUISITION

In appraising the risk associated with an acquisition, a scenario analysis may be used looking at the best case, worst case, and most likely case. Operating scenarios consider assumptions as to variables including sales, volume, cost, competitive reaction, governmental interference, and customer perception. You derive the probability for each scenario on the basis of experience. Sensitivity analysis may be used to indicate how sensitive the project's returns are to variances from expected values of essential variables. For example, you may undertake a sensitivity analysis on selling prices assuming they are, for example, 10% to 15% higher or lower than expected. The theory behind sensitivity analysis is to adjust key variables from their expected values in the most likely case. The analysis can be performed assuming one purchase price or all possible purchase prices. What is the effect, for example, of a 4% change in the gross profit rate on projected returns?

Based on sensitivity analysis, you should pay an amount for a target company resulting in cutoff return given the most likely operating scenario.

Warning: It is difficult to accomplish successful unrelated diversification. This was the case with General Electric and its Insurance Solutions division. The Insurance Solutions division had few connections with the core business of its parent and had been underperforming for years, so at the end of 2005, GE sold it to Swiss Re.

Recommendation: Acquisition of companies operating in related fields usually has a higher success rate.

HOLDING COMPANY

A holding company is one whose sole purpose is to own the stock of other companies. To obtain voting control of a business, the holding company may make a direct market purchase or tender offer. A company may elect to become a holding company if its basic business is declining and it decides to liquidate its assets and use the funds to invest in growth companies.

Since the operating companies owned by the holding company are separate legal entities, the obligations of one are isolated from the others.

Recommendation: A loan officer lending to one company should attempt to obtain a guarantee by the other companies.

Advantages of a Holding Company

- Risk protection, in that the failure of one company does not cause the failure of another or of the holding company. If the owned company fails, the loss of the holding company is restricted to its investment in it.
- Ability to obtain a significant amount of assets with a small investment. The holding company can control more assets than it could acquire through a merger.
- Ease of obtaining control of another company; all that is needed is to purchase enough stock in the marketplace. Unlike a merger which requires stockholder or management approval, no approval is needed for a holding company.

Disadvantages of a Holding Company

- More costly to administer than a single company resulting from a merger because economies of scale are not achieved.
- Incurrence of increased debt because the acquisition may magnify variability in earnings, thus subjecting the holding company to more risk.
- The chance that the U.S. Department of Justice will deem the holding company a monopoly and force dissolution of some of the owned companies.
- Multiple taxes because the income the holding company receives is in the form of cash. Before paying dividends, the subsidiary must pay taxes on the earnings. When profit is distributed to the holding company as dividends, it must pay tax on the dividends received less an 80% or more of the subsidiary's shares, a 100% dividend exemption exists. No multiple tax exists for a subsidiary that is part of a merged company.

EXAMPLE 7

A holding company owns 70% of another firm. Dividends received are $20,000. The tax rate is 34%. The tax paid on the dividend follows:

Dividend	$20,000
Dividend exclusion (80%)	16,000

Dividend subject to tax	4,000
Tax rate	x 34%
Tax	$1,360

The effective tax rate is 6.8% ($1,360/$20,000).

HOSTILE TAKEOVER BIDS

If a negotiated takeover of another company is impossible, a hostile bid may be needed. In a hostile bid, management of the targeted company is bypassed, and the stockholders are approached directly. The acquirer argues that management is not maximizing the potential of the company and is not protecting the interest of shareholders.

In a tender offer, the buyer goes directly to the stockholders of the target business to tender (sell) their shares, typically for cash. The tender in some cases may be shares in the acquiring company rather than cash. If the buyer obtains enough stock, it can gain control of the target company and force the merger. Cash rather than securities is usually used because a stock offering requires a prospectus thereby losing the advantages of timeliness and surprise. Stockholders are induced to sell when the tender price substantially exceeds the current market price of the target company stock. Typically, there is an expiration date to tender.

Hostile takeovers are typically quite costly because they usually involve a significant price incentive, and antitakeover measures. They can be disruptive to both buyer and seller because of “slur” campaigns. It is rare that smooth transitions of management take place.

The typical features of a hostile takeover candidate may include:

1. A multidivisional organization that has diverse business activities.
2. Asset values of component divisions are not reflected in the market price of the company’s stock.
3. Financial performance of the individual business lines could be better.
4. Existing management is unable to realize the true value of the company.

The usual initial step in launching a hostile bid is to buy stock of the target company in the open market. The SEC requires that any investor who buys more than a 5% interest in a public company should register his or her holding and provide the intent (e.g., passive or to gain eventual control) through a Schedule 13-D filing. Beyond 5% ownership, it becomes difficult to make open-market purchases of stock without revealing the intention to acquire control (except that acquirers may accumulate a greater holding within the five days allowed for the 13-D filing, or they may elect to make a passive investment for a limited period before reassessing the intention to acquire control.) The acquiring business must furnish to the management of the potential acquired company and to the SEC 30 days notice of its intent to acquire. Once the intention to acquire control is made public, the stock price of the target company generally rises in expectation of a tender offer at a higher price.

The direct appeal to shareholders, which often follows is frequently made through a public tender offer. Management of the target company will typically recommend that shareholders reject the offer and will possibly propose an alternative restructuring arrangement.

The management of a targeted company can fight the takeover attempt in the following ways:

1. Purchase treasury stock to make fewer shares available for tendering.
2. Initiate legal action to prevent the takeover, such as by applying antitrust laws.
3. Postpone the tender offer (some states have laws to delay the tender offer).
4. Declare an attractive dividend to keep stockholders happy.

Advantages of a Hostile Bid

- Direct communication with stockholders to bypass management intransigency.
- Flexibility to alter terms.
- Increased value of existing stake.
- Improved profitability of the target.

Disadvantages of a Hostile Bid

- Price: hostile bidders may pay a high premium especially if competition arises in the takeover attempt.
- Cost: high transaction and advisory costs.
- Risk: hostile bids often fail.
- Creation of ill will and problems with integrating the target after merger.
- Possible adverse litigation or regulatory action.
- Possible retaliatory action by target.

SEC FILING REQUIREMENTS

When an acquisition of a significant business occurs, the buyer and, where appropriate, the target company must file a Form 8-K (filing for important events), a proxy or information statement (if shareholders must vote), and a registration statement (if securities are to be issued). Significant business means the acquirer's investment in the target exceeds 10% of its consolidated assets. In addition, certain information on the acquisition must be presented in Form 10-Q (quarterly filing).

If a significant business has been acquired, a Form 8-K must be filed within 15 days containing information about the acquisition and including historical financial statements and pro forma data.

If the combination must be voted upon by shareholders of any of the companies, a Form S-4 must be filed. In other cases, one of the other S forms must be filed.

If Form S-4 is filed, there is a 20-business-day waiting period between the date the prospectus is sent to stockholders and the date of the stockholder meeting. Also, if the acquisition must be voted upon by shareholders of one or both of the companies, a proxy or information statement must be furnished to shareholders and filed with the SEC.

Regulation S-X requires audited historical financial statements of a business to be acquired. The financial statements must be for the last three years and any interim period. In a purchase combination, there must be a pro forma statement of income for the most recent year and interim period.

TAX CONSIDERATIONS

The tax effect of a transaction may require an adjustment in selling price. It may be desirable to have an "open-end" arrangement, whereby with the attainment of a given sales volume or profit, additional stock will be issued by the purchaser to the selling company or its stockholders ---so handled to be nontaxable.

The acquiring company should prefer a taxable transaction. In a taxable transaction, the acquiring company must allocate its purchase cost among the assets acquired based on the present values of those assets. Any residual balance is goodwill. The acquired company's net assets will typically have a book value far below their fair market value. A taxable transaction allows the acquiring company to step up the tax basis of these assets, sometimes to a level even higher than original cost, and to start the depreciation stepped-up basis will reduce the taxable gain on the sale.

DEFENSIVE MEASURES BY TARGETED COMPANY

The targeted company may have in place preventive measures against being taken over including:

1. *Golden Parachute.* Management compensation arrangements that are triggered when there is a purchase of the business such as lump-sum benefits, employment agreements, and stock options. Examples are Greyhound and Hughes Tool.

2. *Poison Pill.* When a hostile bid is eminent, the targeted company takes out significant debt (or issues preferred stock) that makes the company unattractive to the hostile acquirer because of the high debt position. A poison pill may be included in a target corporation's charter, by-laws, or contracts to reduce its value to potential tender offerors. A poison pill may be, for example, a right granted to the target firm's shareholders to purchase shares of the merged firm resulting from a takeover. The bidding company loses money on its shares because this right dilutes the value of its stock. Examples are Union Carbide and CBS, Inc.

3. *Self-Tender.* After a hostile bid, the target company itself makes a counteroffer for its own shares. An example is Newmont Mining.

4. Greenmail. The target company buys back the stock accumulated by the raider, at a premium. Examples are Texaco, Walt Disney, and Goodyear.

5. PAC-MAN. The defending company makes a counteroffer for the stock of the raiding company. Examples are American Brands and Bendix Corporation.

6. White Knight. The defending company finds a third party who is willing to pay a higher premium, typically with "friendlier" intentions than the raider. Examples are Gulf Oil Corp. (Chevron) and Sterling Drugs (Eastman Kodak).

7. *Asset Spinoff.* The defending party identifies the assets most desirable to the raider. It then spins off the assets to one of its separate companies or sells them to a third party. Examples are Union Carbide and Marathon Oil.

THE VALUATION OF A TARGETED COMPANY

In a merger, we have to value the targeted company. As a starting point in valuation, the key financial data must be accumulated and analyzed including historical financial statement, forecasted financial statements, and tax returns. The assumption of the valuation must be clearly spelled out.

The valuation approaches may be profit- or asset-oriented. Adjusted earnings may be capitalized at an appropriate multiple. Future adjusted cash earnings may be discounted by the rate of return that may be earned. Assets may be valued at fair market value, such as through appraisal. Comparative software programs are available to do merger analysis.

Comparison with Industry Averages

Valid comparisons can be made between the entity being valued and others in the same industry. Industry norms should be noted. General sources of comparative industry data found financial advisory services include Standard and Poor's, Moody's, Value Line, Dun and Bradstreet and Robert Morris Associates. Trade publications may also be consulted. Reference may be made to the *Almanac of Business and Industrial Financial Ratios* (based on corporate tax returns to the Internal Revenue Service) written by Leo Troy and published by Prentice Hall. If a small company is being acquired, reference may be made to *Financial Studies of the Small Business* published annually by Financial Research Associates (Washington,D.C. :Financial Research Associates, 1984).

Publicly available information on the targeted company include the annual report; SEC Forms 10-K, 10-Q, and 8-K; interim shareholder reports; proxy statements; press releases; and offering prospectuses.

We now look at the various approaches to business valuation consisting of capitalization of earnings, capitalization of excess earnings, capitalization of cash flow, present value (discounted) of future cash flows, book value of net assets, tangible net worth, economic net worth, fair market value of net assets, gross revenue multiplier, profit margin/capitalization rate, price earnings factor, comparative value of similar going concerns, and recent sales of stock. A combination of approaches may be used to obtain a representative value.

Capitalization of Earnings

Primary consideration should be given to earnings when valuing a company. Historical earnings are typically the beginning point in applying a capitalization method to most business valuations. In general, historical earnings are a reliable predictor of future earnings. According to IRS

Revenue Ruling 59-90, 1959-1, C.B.237, the greatest emphasis should be placed on profitability when looking at a "going concern."

The value of the business may be based on its adjusted earnings times a multiplier for what the business sells for in the industry.

Net income should be adjusted for unusual nonrecurring revenue and expense items. In adjusting net income of the business, we should add back the portion of the following items if personal rather than business related: auto expense, travel expense, and promotion and entertainment expense. Interest expense should also be added back to net income because it is the cost to borrow funds to buy assets or obtain working capital, and as such, is not relevant in determining the operating profit of the business. In the event lease payments arise from a low-cost lease, earnings should be adjusted to arrive at a fair rental charge. Extraordinary items (e.g. Gain on the sale of land) should be removed from earnings to obtain typical earnings. If business assets are being depreciated at an accelerated rate, you should adjust net income upward. Therefore, the difference between the straight-line method and an accelerated depreciation method should be added back.

We should add back expenses for a closely held business solely for fringe benefits, health plan, pension plan, and life insurance. In addition, we should add back excessive salary representing the difference between the owner's salary and what a reasonable salary would be if we hired someone to do the job. All compensation should be considered including perks. Thus, if the owner gets a salary of $300,000 and a competent worker would get $80,000, the add-back to net income is $220,000.

A tax provision (if none exists) should be made in arriving at the adjusted net income. The tax provision should be based on the current rates for each of the years.

If the company has a significant amount of investment income (e.g. dividend income, interest income, rental income from non-operating property), net income may be reduced for the investment income with taxes being adjusted accordingly. We are primarily concerned with the income from operations.

The adjusted (restated) earnings results in a quality of earning figure. The restated earnings is then multiplied by a multiplier to determine the value of a business. The multiplier should be higher for a low risk business but generally not more than 10. The multiplier should be lower for a high-risk business, often only 1 or 2. Of course, an average multiplier, such as 5, would be used when average risk exists. The P/E ratio for a comparable company would be a good benchmark.

Some investment bankers use in valuation a multiple of the latest year's earnings, or the annual rate of earnings of a current interim period (if representative). An example follows based on a multiplier of one-year profits.

EXAMPLE 8

Adjusted Net Income for the Current Year	$400,000*

X multiplier	x 4*
Valuation	$1,600,000
*The adjusted net income is computed below:	
Reported Net Income	$325,000
Adjustments:	
Personal expenses (e.g., promotion and entertainment)	50,000
Extraordinary or nonrecurring gain	-60,000
Owner's fringe benefits (e.g., pension plan)	40,000
Excessive owner's salary relative to a reasonable salary	30,000
Interest expense	20,000
Dividend revenue	-10,000
Low-cost rental payments relative to a fair rental charge	-5,000
Excess depreciation from using an accelerated method	10,000
Restated Net Income	$400,000

Typically, a five-year average adjusted historical earnings figure is used. The five years' earnings up to the valuation date demonstrate past earning power. Note that for SEC registration and reporting purposes a five-year period is used. Assuming a simple average is used, the computation follows:

Simple Average Adjusted Earnings over 5 years x Multiplier
(Capitalization Factor, P/E Ratio) of 5 (based on industry standard)
Value of Business

EXAMPLE 9
Assume the following net incomes:

20x4	$120,000
20x3	$100,000
20x2	$110,000
20x1	$90,000
20x0	$115,000

The multiplier is 4.

$$\text{Simple Average Earnings} = \frac{\$120{,}000 + \$100{,}000 + \$110{,}000 + \$90{,}000 + \$115{,}000}{5}$$

$$= \frac{\$535{,}000}{5} = \$107{,}000$$

Simple Average Adjusted Earnings over 5 years		$107,000
X Multiplier	x 4	
Value of Business		$428,000

Instead of a simple average, a weighted-average adjusted historical earnings figure is recommended. This gives more weight to the most recent years which reflects higher current prices and recent business performance. If a five-year weighted average is used the current year is given a weight of 5 while the first year is assigned a weight of 1. The multiplier is then applied to the weighted-average five-year adjusted earnings to get the value of the business.

EXAMPLE 10

Year	Net Income	x	Weight	=	Total
20x4	$120,000	x	5	=	$600,000
20x3	$100,000	x	4	=	400,000
20x2	$110,000	x	3	=	330,000
20x1	$90,000	x	2	=	180,000
20x0	$115,000	x	1	=	115,000
			15		$1,625,000

Weighted-average five-year earnings:

$1,625,000/15 = $108,333

Weighted-Average 5-year earnings	$108,333
X Capitalization Factor	x 4*
Capitalization-of-Earnings Valuation	$433,332

If the company's financial statements are not audited, you should insist on an audit to assure accurate reporting.

Has the owner of a closely held company failed to record cash sales to hide income? One way of determining this is to take purchases and add a typical profit markup in the industry. To verify reported profit, you can multiply the sales by the profit margin in the industry. If reported earnings are significantly below what the earnings should be based on the industry standard, there may be some hidden income.

Capitalization of Excess Earnings

The best method is to capitalize excess earnings. The normal rate of return on the weighted-average net tangible assets is subtracted from the weighted-average adjusted earnings to determine excess earnings. It is suggested that the weighting be based on a five-year period. The excess earnings are then capitalized to determine the value of the intangibles (primarily goodwill). The addition of the value of the intangibles and the fair market value of the net tangible assets equals the total valuation. As per IRS Revenue Ruling 68-609, 1968-2 C.B. 327, the IRS recommends this method to value a business for tax purposes. The Revenue Ruling states that the return on average net tangible assets should be the percentage prevailing in the industry. If an industry percentage is not available, an 8% to 10% rate may be used. An 8% return rate is used for a business with a small risk factor and stable earnings while a 10% rate of return is used for a business having a high risk factor and unstable earnings. The capitalization rate for excess earnings should be 15% (multiple of 6.67) for a business with a small risk factor and stable earnings and a 20% capitalization rate (multiple of 5) should be used for a business having a high risk factor and unstable earnings. Thus, the suggested return rate is between 8% to 10%. The range for the capitalization rate may be between 15% to 20%.

EXAMPLE 11

Weighted-average net tangible assets are computed below:

Year	*Amount*	*x*	*Weight*	=	*Total*
20x4	$950,000	x	1	=	950,000
20x3	1,000,000	x	2	=	2,000,000
20x2	1,200,000	x	3	=	3,600,000
20x1	1,400,000	x	4	=	5,600,000
20x0	1,500,000	x	5	=	7,500,000
			15		19,650,000

Weighted-Average Net Tangible Assets:		
		$19,650,000/15 = $1,310,000
Weighted-Average Adjusted Net Income (5 years)—assumed	$600,000	
Reasonable Rate of Return on Weighted-Average Tangible Net Assets ($1,310,000 x 10%)	131,000	
Excess Earnings	469,000	
Capitalization Rate (20%)	x 5	
Value of Intangibles	$2,345,000	
Fair Market Value of Net Tangible Assets	$3,000,000	
Capitalization-of-Excess-Earnings Valuation	$5,345,000	

Capitalization of Cash Flow

The adjusted cash earnings may be capitalized in arriving at a value for the firm. This method may be suitable for a service business.

EXAMPLE 12

Adjusted Cash Earnings	$100,000
X Capitalization Factor (25%)	x 4
Capitalization of Cash Flow	$400,000
Less Liabilities Assumes	50,000
Capitalization-of-Cash-Flow Earnings	$350,000

Present Value (Discounting) of Future Cash Flows

A business is worth the discounted value of future cash earnings plus the discounted value of the expected selling price. Cash flow may be a more valid criterion of value than book profits because cash flow can be used for reinvestment. The growth rate in earnings may be based on past growth, future expectations, and the inflation rate. This approach is suggested in a third-party sale situation. We also have more confidence in it when the company is strong in the industry and has solid earnings growth. The problem with the method is the many estimates required of future events. It probably should not be used when there has been an inconsistent trend in earnings.

Step 1: Present Value of Cash Earnings. The earnings should be estimated over future years using an estimated growth rate. A common time frame for a cash flow valuation is 10 years. Once the future earnings are determined, they should be discounted. Future earnings may be based on the prior years' earnings and the current profit margin applied to sales. Cash earnings equals net income plus noncash expense adjustments such as depreciation.

Step 2: Present Value of Sales Price. The present value of the expected selling price of the business at the date of sale should be determined. This residual value may be based on a multiple of earnings or cash flow, expected market value, and so on.

You may use as the discount rate the minimum acceptable return to the buyer for investing in the target company. The discount rate may take into account the usual return rate for money, inflation rate, a risk premium (based on such factors as local market conditions, earnings instability, and level of debt), and maybe a premium for the illiquidity of the investment. If the risk-free interest rate is 7% (on government bonds), the risk premium is 8%, and the illiquidity premium is 7%, the capitalization (discount) will be 22%. The risk premium may range from 5% to 10%, while the illiquidity premium may range from 5% to 15%. Some evaluators simply use as the discount rate the market interest rate of a low-risk asset investment. *Note:* If the net incremental cash flows to the acquiring firm's shareholders are to be valued, the discount rate used should be the cost of equity capital. Moreover, this rate should reflect the risk associated with the use of funds rather than their source. The rate therefore should not be the cost of capital of the acquiring firm but rather the cost of equity of the combined firm after the combination.

Assuming you expect to hold the business for 14 years, and anticipate a 12% rate of return and constant earnings each year, the value of the business is based on:

For cash earnings: Present value of an annuity for n = 14, i= 12% (Table 2 in the Appendix)

For selling price: Present value of $1 for n = 14, i= 12% (Table 1 in the Appendix)

Total Present Value

If earnings grow at an 8% rate, a Present Value of $1 table would be used to discount the annual earnings, which would change each year.

EXAMPLE 13
In 20x1, the net income is $220,000. Earnings are expected to grow at 8% per year. The discount rate is 10%. You estimate that the business is worth the discounted value of future earnings.

The valuation equals:

Year	Net Income (based on an 8% growth rate)		PV of $1 Factor (at 10% interest) (Table 1)	Present Value
20x1	$200,000	x	0.909	$181,800
20x2	208,000	x	0.826	171,808
20x3	224,600	x	0.751	168,675
20x4	242,568	x	0.683	165,674
20x5	261,973	x	0.621	162,685
Present Value of Future Earnings				$850,642

If the expected selling price at the end of year 20x5 is $600,000, the valuation of the business equals:

Present value of earnings	$850,642
Selling price in 20x5 $600,000 x .621	372,600
Valuation	$1,223,242

Operating Cash Flow
Some businesses may be valued at a multiple of operating cash flow. For example, radio and TV stations often sell for between 8 to 12 times operating cash flow.

Book Value (Net Worth)
The business may be valued based on the book value of the net assets (assets less liabilities) at the most recent balance sheet date. This method is unrealistic because it does not take into account current values. It may be appropriate only when it is impossible to determine fair value of net assets and/or goodwill. However, book value may be adjusted for obvious understatements such as excess depreciation, LIFO reserve, favorable leases, and for low debt (e.g., low rental payments or unfounded pension and postretirement benefits). Unfortunately, it may be difficult for a buying company to have access to information regarding these adjustments.

Tangible Net Worth
The valuation of the company is its tangible net worth for the current year equal to:

Stockholders' Equity
Less: Intangible Assets
Tangible Net Worth

Economic Net Worth (Adjusted Book Value)

Economic net worth equals:

Fair Market Value of Net Assets
Plus: Goodwill (as per agreement)
Economic Net Worth

Fair Market Value of Net Assets
The fair market value of the net tangible assets of the business may be determined through independent appraisal. To it, we add the value of the goodwill (if any). Note that goodwill applies to such aspects as reputation of the company, customer base, and high quality merchandise. IRS Appeals and Review Memorandums (ARM) 34 and 38 present formula methods to value goodwill. In the case of a small business, a business broker may be retained to do the appraisal of property, plant, and equipment. A business broker is experienced because he or she puts together the purchase of small businesses. According to Equitable Business Brokers, about 25% of businesses changing hands are sold through business brokers. Typically the fair value of the net tangible assets (assets less liabilities) is higher than book value.

The general practice is to value inventory at a maximum value of cost. IRS Revenue Procedure 77-12 provides acceptable ways to allocate a lump-sum purchase price to inventories.

Unrecognized and unrecorded liabilities should be considered when determining the fair market value of net assets. For example, one company the author consulted had both an unrecorded liability for liquidated damages for nonunion contracts of $3,100,000 and an unrecorded liability for $4,900,000 related to the estimated employer final withdrawal liability. Obviously, as a result of unrecorded liabilities the value of a business will be reduced further.

A tax liability may also exist that has not been recognized in the accounts. For example, the company's tax position may be adjusted by the IRS which is currently auditing the tax return. This contingent liability should be considered in valuing the business.

In a similar vein, unrecorded and undervalued assets, such as customer lists, patents, and licensing agreements, should be considered because they increase the value of the business.

Note: IRS Revenue Ruling 35-193 approves only those approaches where valuations can be determined separately for tangible and intangible assets.

Liquidation Value
Liquidation value is a conservative figure of value because it does not take into account the earning power of the business. Liquidation value is a "floor" price in negotiations. Liquidation value is the estimated value of the company's assets, assuming their conversion into cash in a short time period. All liabilities and the costs of liquidating the business (e.g. appraisal fees, real estate fees, legal and accounting fees, recapture taxes) are subtracted from the total cash to obtain net liquidation value.

Liquidation value may be computed based on an orderly liquidation or a forced (rapid) liquidation. In the case of the latter, there will obviously be a lower value.

Replacement Cost
Replacement cost ("new") is the cost of duplicating from scratch the business' assets on an "as-if -new" basis. It will typically result in a higher figure than book value or fair market value of existing assets. Replacement cost provides a meaningful basis of comparison with other methods but should not be used as the acquisition value. A more accurate indicator of value is when replacement cost is adjusted for relevant depreciation and obsolescence.

Secured-Loan Value
The secured-loan value reflects the borrowing power of the seller's assets. Typically, banks will lend up to 90% of accounts receivable and 10%-60% of the value of inventory depending on how much represents finished goods, work-in-process, and raw materials. The least percentage amount will be work-in-process, and raw materials. The least percentage amount will be work-in-process because of its greater realization risk and difficulty of sale. Also considered are turnover rates.

Gross Revenue Multiplier
The value of the business may be determined by multiplying the revenue by the gross revenue multiplier common in the industry. This approach may be used when earnings are questionable.

EXAMPLE 14
If revenue is $14,000,000 and the multiplier is .2, the valuation is: $14,000,000 x .2 = $2,800,000.

In a similar fashion, insurance agencies often sell for about 150% of annual commissions.

Profit Margin/Capitalization Rate
The profit margin divided by the capitalization rate provides a multiplier which is then applied to revenue. A multiplier of revenue that a company would sell at is the company's profit margin. The profit margin may be based on the industry's average. The formula is:

$$\frac{\text{Profit Margin}}{\text{Capitalization Rate}} = \text{Multiplier}$$

The capitalization rate in earnings is the return demanded by investors. In arriving at a capitalization rate, the prime interest rate may be taken into account. The multiplier is what the buyer is willing to pay.

EXAMPLE 15
Assume sales of $14,000,000, a profit margin of 5%, and a capitalization rate of 20%. The multiplier is 25% (5%/20%). The valuation is:

Sales x 25%
$14,000,000 x 25% = $3,500,000

The IRS and the courts have considered recent sales as an important factor.

Price-Earnings Factor

The value of a business may be based on the price-earnings factor applied to current (or expected) earnings per share (EPS). For publicly traded companies, the P/E ratio is known.

Valuation for a privately held company is more difficult. Historical earnings must be adjusted for a closely held company to be consistent with the reported earnings of a public company. After suitable adjustments have been made, the average P/E ratio for the industry or for several comparable public companies is used to arrive at a value. Typically, a premium is added to the value estimate to incorporate uncertainty and additional risk and lack of marketability associated with private companies. A variation of the P/E method may also be used. Assuming an expected earnings growth rate of the seller and a desired ROI, the acquirer determines an earnings multiple he or she pays to achieve the ROI goal. Under this approach, the buyer determines the price he or she would be willing to pay instead of using a stock-market-related price.

EXAMPLE 16

Net income	$800,000
Outstanding shares	100,000
EPS	$8
P/E Multiple	x10
Market Price per Share	$80
X Number of Shares Outstanding	x 100,000
Price-Earnings Valuation	$8,000,000

Comparative Values of Similar Going Concerns

What would someone pay for this business? Reference may be made to the market price of similar publicly traded companies. Under this approach, you obtain the market prices of companies in the industry similar in nature to the one being examined. Recent sales prices of similar businesses may be used and an average taken. Upward or downward adjustments to this average will be made depending on the particular circumstances of the company being valued.

There are two ways of arriving at an adjusted average value for a company based on comparable transactions. Under the equivalency adjustment method, you make an adjustment to each transaction before averaging based on such factors as size, profitability, earnings stability and transaction structure. Transactions are adjusted downward if it appears that a higher price was paid than would be appropriate for the target company, and vice versa. The average of the adjusted comparables approximates the estimated value of the target company. With the simple averaging method, you determine a simple average of the comparable transaction after excluding noncomparable cases and adjust the target company's price insofar as it differs from the average features of the company's purchases in comparable transactions. The former approach is suggested where extensive data are available on the comparable transactions and where they differ substantially in their features. The latter approach is preferable where the comparable transactions are broadly similar or where many comparable transactions have occurred.

While a perfect match is not possible, the companies should be reasonably similar (e.g. size, product, structure, geographic location, diversity). The comparable transactions value will often be higher than the market value of the target's stock price. Several sources of industry information are Standard & Poor's Dow Jones-Irwin, on-line information services, and trade association's reports. Extensive databases exist to assist in the analysis of merger-market history.

EXAMPLE 17
A competing company has just been sold for $6,000,000. We believe the company is worth 90% of the competing business. Therefore, the valuation is $5,400,000.

Sales of Stock
The value of the business may be based on the outstanding shares times the market price of the stock. For an actively traded stock, the stock price provides an important benchmark. For a thinly traded stock, the stock price may not reflect an informed market consensus. Typically, the market price of the stock should be based on a discounted amount from the current market price since if all the shares are being sold, the market price per share may drop somewhat based on the demand-supply relationship. Further, market value of stock is of use only in planning the actual strategy of acquiring a target company since the stock may be overvalued or undervalued relative to the worth of the target company to the acquirer.

Combination of Methods
The value of the business may be approximated by determining the average value of two or more methods.

EXAMPLE 18
Assume that the fair market value of net assets approach gives a value of $2,100,000, while the capitalization of excess earnings method provides a value of $2,500,000. The value of the business would then be the average of these two methods, or $2,300,000 ($2,100,000 + $2,500,00)/2.

Some courts have found a combination of methods supportable as long as greater weight is given to the earning methods. S. Pratt writes that the most weight should be placed on the earning approaches and less on the asset approaches.

EXAMPLE 19
Using the same information as in the prior example, if a 2 weight were assigned to the earnings approach and a 1 weight were assigned to the fair market value of net assets method, the valuation would be:

Method	*Amount*	*x*	*Weight*	*=*	*Total*
Fair Market Value of Net Assets	$2,100,000	x	1		$2,100,000
Capitalization-of-Excess Earnings	2,500,000	x	2		5,000,000
			3		$7,100,000
					/3
Valuation					$2,366,667

Accounting Adjustments
Material accounting adjustments should be made to the acquired company's figures to place them on a comparable basis to those of the acquirer. Adjustments should be made, where practical, for savings in administrative, technical, sales, plant, and clerical personnel costs resulting from the combination. These savings arise from the elimination of duplicate personnel, plant, office, and warehouse facilities. Savings in freight may result from the combination by shifting production to plants closer to markets.

Q ratio
A firm's Q ratio equals the market value of the firm's securities ÷ replacement cost of its assets. A ratio greater than one means that a firm is earning returns greater than the amount invested. For this reason, a company with a ratio exceeding one should attract new resources and competition. It is also called *Tobin's Q*. The higher the Q-ratio, the greater the competitive advantage. The notion of this ratio holds that a firm's market value ultimately equals the replacement cost of its tangible assets. Another aspect of undervaluation is that a firm's Q ratio may be less than one.

SUMMARY

The price to be paid for a business depends upon many factors including the seller's strengths, weaknesses and prospects. The buyer's objectives and requirements are also relevant. A total cash transaction justifies a lower price than an installment sale because with an installment sale there are the uncertainties of cash collection and the time value of money.

When valuing a company, more weight should be placed on the earnings approaches and less on the asset approaches. Valuation may be based on a combined approach of methods including earnings and asset valuation. In deriving a value, industry standards may be quite helpful. Consideration should be given to adjusted cash earnings, gross revenue, fair value of net assets, and recent sales of similar businesses. A proper valuation is needed so as to come up with a realistic price that is fair to all concerned parties. IRS Revenue Procedure 66-49 discusses how the IRS comes up with its valuations. Some of the contents of what should be in a valuation report are mentioned.

ACCOUNTING, REPORTING AND DISCLOSURES FOR BUSINESS COMBINATIONS

Business combinations must be accounted for under the *purchase method*. The purchase method views the business combination as the acquisition of one entity by another. The firm doing the acquiring records the identifiable assets and liabilities at fair value at the date of acquisition. The difference between the fair value of the identifiable assets and liabilities and the amount paid is recorded as goodwill (an asset). With a purchase, the acquiring firm picks up the income of the acquired firm form the date of acquisition. Retained earnings of the acquired firms do not continue.

Purchase Method
A purchase typically involves either the payment of assets or incurrence of liabilities for the other business. To effect a purchase, more than 50% of voting common stock has to be acquired.

Accounting under Purchase Method.

The accounting for a purchase is indicated in the following:

- Net assets of the acquired company are brought forth at fair market value.

Guidelines in assigning values to individual assets acquired and liabilities assumed (except goodwill) follow:

Marketable securities- current net realizable values
Receivables-present value of net receivables
Inventories- Finished goods at estimated net realizable values less a reasonable profit allowance. WIP at estimated net realizable value of finished goods less costs to complete and profit allowance.
Plant and equipment-If to be employed in operations, show at replacement cost.
Identifiable intangibles-At appraisal value.
Other assets-At appraisal value
Payables-At estimated present value
Liabilities and accruals- At estimated present value
Other liabilities and commitments- At estimated present value. However, a deferred income tax credit account of the acquired company is not brought forth.

- Goodwill of the acquired company is not brought forth.

- None of the equity accounts of the acquired business appear on the acquirer's books.

- Net income of the acquired company is brought forth from the date of acquisition to year-end.

- Direct costs of the purchase are a deduction from the fair value of the securities issued while indirect costs are expensed as incurred.

When stock is issued in a purchase transaction, quoted market price of stock is typically a clear indication of asset's fair value. Consideration should be given to price fluctuations, volume and issue price of stock.

If liabilities are assumed in a purchase, the difference between the fixed rate of the debt securities and the present yield rate for comparable securities is reflected as a premium or discount.

There is the following step-by-step acquisition procedure:

- If control is not accomplished on the initial purchase, the subsidiary is not includable in consolidation until control has been accomplished.

- Once the parent owns in excess of 50% of the subsidiary, a retroactive restatement should be made including all of the subsidiary's earnings in consolidated retained earnings in a step-by-step fashion commencing with the initial investment.

- The subsidiary's earnings are included for the ownership years at the appropriate ownership percentage.

- After control is accomplished, fair value and adjustments for goodwill will be applied retroactively on a step-by-step basis. Each acquisition is separately determined.

The acquiring company cannot generally record a net operating loss carryforward of the acquired company since there is no assurance of realization. However, if realized in a later year, recognition will be a retroactive adjustment of the purchase transaction allocation thus causing the residual purchase cost to be reallocated to the other assets acquired. In effect, there will be a reduction of goodwill or the other assets.

SFAS 38 provides guidelines for recording "preacquisition contingencies" during the "allocation period" as a part of allocating the price of an investment in an enterprise acquired under the purchase method. A preacquisition contingency is a contingency of a business that is acquired with the purchase method and that exists prior to the consummation date. Examples of preacquisition contingencies are a contingent asset, a contingent liability, or a contingent impairment of an asset. The allocation period is the one required to identify and quantify the acquired assets and liabilities assumed. The allocation period ceases when the acquiring company no longer needs information it has arranged to obtain and that is known to be available. Hence, the existence of a preacquisition contingency for which an asset, a liability, or an impairment of an asset cannot be estimated does not, of itself, extend the allocation period. Although the time required depends on the circumstances, the allocation period typically is not greater than one year from the consummation date.

Preacquisition contingencies (except for tax benefits of NOL carryforwards) must be included in the allocation of purchase cost. The allocation basis is determined in the following manner:

- The fair value of the preacquisition contingency, assuming a fair value can be determined during the "allocation period."

- If fair value is not determinable, the following criterion is used: Information available before the termination of the allocation period indicates that it is probable that an asset existed, a liability had been incurred, or an asset had been impaired at the consummate date. It must be probable that one or more future events will occur confirming the existence of the asset, liability, or impairment. The amount of the asset or liability can be reasonably estimated.

Adjustments necessitated from a preacquisition contingency occurring after the end of the "allocation period" must be included in income in the year the adjustment is made.

Disclosures under Purchase. Footnote disclosures under the purchase method include:

- Name and description of companies combined.
- A statement that the purchase method is being used.

- The period in which earnings of the acquired company are included.
- Cost of the acquired company.
- Contingencies arising under the acquisition agreement.
- Earning for the current and prior periods as if the companies were combined at the beginning of the period. This pro forma disclosure is to make the purchase method comparable to that of pooling.

Advantages and Disadvantages of Purchase Method. An advantage of the purchase method is that fair value is used to recognize the acquired company's assets just as in the case of acquiring a separate assets. Disadvantages are the difficulty in determining fair value, the amortization period to use, and mixing fair value of acquired company's assets and historical cost for the acquiring company's assets.

FINANCIAL STATEMENT ANALYSIS OF BUSINESS COMBINATION

Acquisitions must be analyzed, especially by examining footnote disclosures, because they can create an appearance of earnings and growth when they are not really present.

For analytical purposes, net income should be downwardly adjusted for the difference between reported gain and what the gain would have been if the assets were valued at fair market value.

The analyst must carefully scrutinize disclosures relating to deriving fair market values of the assets and liabilities of the acquired company. He must ascertain the reasonableness of such valuations.

If equity securities are involved in the purchase transaction, the analyst should determine whether the market prices of the securities were unusually high at the transaction date. If so, net assets will be inflated due to the temporary ceiling market prices. In this case, the analyst may wish to use the average market price of the securities for his own valuation of the acquired assets.

The analyst must be alert to the possible overstatement of estimated liabilities for future costs and losses that may increase postacquisition earnings.

EMERGENCE OF CORPORATE DEVELOPMENT OFFICERS (CDOs) —IN-HOUSE M&A TEAMS

According to a 2004 study by Ernst & Young, a new class of executive is emerging in North America, potentially encroaching on the advisory role traditionally played by investment bankers. Corporate development officers (CDOs), or the heads of in-house merger and acquisition teams, are gaining more power and influence in the wake of US corporate governance reforms.

The change is being driven by CEOs' concerns about the risks associated with bad deals. CFOs need to spend their time mostly on complying with new legislation's stricter reporting rules. The big shift here is that in today's environment the focus is really on ensuring there is somebody at the executive level that has responsibility for the life of a deal. Symantec, the security software maker, and Honeywell, the engineering group, have recently bolstered the roles of their CDOs. The E&Y study is based on interviews with 175 US and Canadian executives responsible for corporate development, including 26 from Fortune 100 companies. Some observers suggest the presence of a senior executive dedicated solely to deal-making might mean that external advisers such as investment banks lose significant amounts of business.

The study has reignited worries that advisory work by Wall Street firms is becoming commoditized. If the strategic thinking on mergers and acquisitions deals that generate high fees is being done within companies, they will turn to banks only for lower fee-paying execution work, the argument goes. Large companies such as General Electric with well-staffed in-house corporate development teams have never shied away from extensive use of investment bankers for M&A as well.

A caveat: Some fundamental parts of a deal still require the presence of an independent financial adviser. There is the need for an independent valuation, the ability to engage in tough negotiations without damaging relationships and a complete understanding of how competitors might react.

MAKING A CORPORATE MARRIAGE WORK

Bringing two companies together is an enormous task. There are grand, big- picture questions that need to be resolved, such as the new group's strategy and direction. There are also administrative, logistical and technical challenges. Will new contracts of employment be required? Where should the headquarters of the combined operation be located? How can the companies' information technology systems be integrated? Below is a list of steps to be addressed:

- Should you be starting from here? Are there compelling strategic reasons for this deal? Or is the company under pressure from investors and the media? Is the CEO looking for a last hurrah before moving on?
- Get your integration right. Set target dates for major decisions on structure.
- Define the key functions in the new entity—including finance, HR, IT, legal—as soon as you can.
- Plan to resolve cultural differences; this will largely happen through good communication.
- Be careful to give customers priority during the transition; employees will not be the only stakeholders feeling unsettled.

CONCLUSION

Generally, a company does not acquire another business unless it is a growing, successful company. In analyzing a potential merger and acquisition, many considerations must be taken into account, such as the market price of stock, earnings per share, dividends, book value of assets, risk, and tax considerations.

CHAPTER 2
DIVESTITURE

LEARNING OBJECTIVES:

After studying this chapter you will be able to:

1. Define unbundling.
2. Explain the objectives and types of divestitures.
3. Cite some reasons for divestiture.
4. Determine what areas/units should be sold.
5. Define divestiture or restructuring planning
6. Plan for sale.
7. List the means of divestiture.
8. Value and appraise a divestiture.
9. Close the form of the transaction.
10. Account for divestitures.
11. Outline the liquidation process.

UNBUNDLING

Unbundling is often understood as what happens when a company disposes of or sells assets, facilities, product lines, subsidiaries, divisions or business units. An unbundling operation is an alteration to a company's productive portfolio through the disposal or sale of a division, a business unit, a product line or a subsidiary. Unbundling is discussed in terms of divestments and divestitures. These terms are often used as synonyms, but they are, in fact, distinct strategic options. A divestment is the partial or complete sale or disposal of physical and organizational assets, the closing of facilities and the reduction of the workforce. A divestiture, on the other hand, is the partial or complete sale or disposal of a business unit, product line, subsidiary or division. It is only with a divestiture, and not with a divestment, that the parent organization creates a new company, able to operate more or less autonomously in the market. It is important to understand that unbundling operations are more than just financing operations. Their design and implementation affect the success of the parent company and the divested unit, from both a financial and a strategic perspective.

The divestiture of business segments by corporations has become an accepted strategy for growth rather than diversification. Divestiture involves the partial or complete conversion, disposition and reallocation of people, money, inventories, plants, equipment and products. It is the process of eliminating a portion of the enterprise for subsequent use of the freed resources for some other purpose. A divestment may involve a manufacturing, marketing, research or other business function.

A business segment may be subject to divestiture if they:

1. Do not produce an acceptable return on invested capital.
2. Do not generate sufficient cash flow.

3. Fit in with the overall corporate strategy.
4. Are unrelated to their primary lines of business.
5. Fail to meet management goals for growth in profits, sales or in other respects.
6. The worth of the pieces is greater than that of the whole.

Corrective divestitures are intended to correct strategic mistakes. They aim to reduce over-diversification, refocus on core businesses, eliminate negative synergies or realign corporate strategy with the company's identity. Divestiture first appears in the early stages of the downturn, as corporations needed cash. Many dynamic, fast-growing companies are combining with slower growing, mature companies to produce a more diversified corporate portfolio. However, during this time many companies find that if you have too many businesses it spreads the cash too thin. Also, this random mixture of businesses under one corporate umbrella causes a great deal of concern among the financial industry. This mix makes it difficult to measure actual segment performance.

In 1976, the Securities and Exchange Commission persuaded the Financial Accounting Standards Board (FASB) that publicly held companies should report the assets held and income generated by disaggregated corporate segments of similar products and services. Thus, for the first time the public found out that many of a company's business segments were unprofitable! This disclosure forced management to explain to the shareholders why certain segments of the corporation were producing such low returns on the stockholder's invested capital. For the first time, corporate executives were forced into developing divestiture strategies to eliminate the unprofitable section of the business.

Resource allocation becomes an important consideration in a diversified business. These resources are not only capital but also include management talent. If management finds itself spending an excessive amount of time and energy on one segment of the corporation, that segment may be a candidate for divestiture. Then those resources can be redirected to the growing segments of the business. However, this operation also requires the attention of management.

OBJECTIVES AND TYPES OF DIVESTITURES

Sooner or later a corporation will find itself in the position of needing to divest some of its assets. This may be for a variety of reasons. The usual objectives behind divestiture are to reposition the company in a market, raise cash, and to reduce losses. The other alternatives to divestiture are liquidation and bankruptcy; however, in this time of acquisitions and buyouts usually a buyer can be found for the other guy's dog. There are four primary types of divestitures:

(a) Sale of an operating unit to another firm
(b) Discharge of the managers of the unit being divested
(c) Setting up the business to be divested as a separate corporation and then giving (or "spinning off") its stock to the divesting firm's stockholders on a pro rata basis
(d) Outright liquidation of assets

When the divestiture is in the form of a sale to another firm, it usually involves an entire division or unit and is generally for cash but sometimes for stock of the acquiring firm. In a managerial buyout, the division managers themselves purchase the division, often through a leverage buyout (LBO), and reorganize it as a closely held firm. In a *spin-off*, the firm's existing stockholders are given new stock representing separate ownership in the company that was divested. The new company establishes its own board of directors and officers and operates as a separate entity. A spin-off is a type of restructuring that is characterized by establishing a new and separate entity and transferring its newly issued stock to the shareholders of the original company. It is accomplished by distributing a property dividend in the form of stock of another corporation to shareholders, who then become shareholders of both corporations. In *liquidation*, the assets of the divested unit are sold off separately instead of as a whole.

REASONS FOR DIVESTITURE

Prior to formulating a divestiture strategy and determining which segments should be divested, the reasons for divestiture need to be listed. Exhibit 3 summarizes the reasons given by management for divesting segments of their business.

EXHIBIT 3
REASONS MANAGERS CITE FOR DIVESTING SEGMENTS OF THEIR BUSINESS

	Frequency Given
Poor Performance	26%
Changes in Plans	23%
Excessive Resource Needs	19%
Constraints in Operation	15%
Source of Funds	10%
Antitrust	7%
	100%

As a result of the FASB decision in FASB No. 14 regarding the reporting of each business segment's operating costs and whether a profit is made or not, corporate management has been less reluctant to hold on to poorly performing business segments. However, there may be a logical reason to keep a poorly performing segment, such as an expected turn around, or the unit provides components or services to another unit with the company.

A diversified decision may result after the corporation has reviewed its operational philosophy and overall business strategy (whether this reevaluation was voluntary or forced by environment changes), and found business segments that no longer fit into the corporate image or are a business the company does not want to be involved in any more. An example of this is Schering-Plough's attempt to sell its Maybelline Cosmetics Division to concentrate resources and time on their more profitable prescription and consumer drug businesses. This restructuring will allow Schering-Plough to earn more on its invested capital. Operating margins for drugs are near 24%, which is more than twice that of the Maybelline Division.

The need to raise cash to pay off debt resulting from operations or acquisition/diversification is another frequent reason for selling off a segment of the corporation. In this case though, many times the segment being sold is a winner. By selling a winning segment the company may hope to put itself on firmer financial ground by reducing debt. In this case where the company is trying to raise cash, the best segment to sell is the one that would require the least work to sell and bring in the greatest amount of cash over book value. For example, if a company had two divisions, a retail operation and the other which builds and leases railcars, and the sale of either would make a significant dent in the company's debt load, which division should be sold? The retail should be sold because the market for that type of operation is much better than for railcars.

There are other less common reasons such as personality conflicts among division management and that of the parent company or government decree or public outcry as in the case of many companies that had dealings in South Africa. On a rare occasion, the company may actually be approached and asked if they would be willing to sell the business.

DETERMINING WHAT AREAS/UNITS SHOULD BE SOLD

When trying to determine which areas or units of the company could be sold off, there are some simple guidelines that management should follow:

- The sum of a division's parts may be greater in value than the whole division;
- Simple components of a division may be sold more easily than the whole division itself;
- The disposal of a corporate division is a major marketing operation;
- Planning should include an evaluation from the viewpoint of the potential buyer;
- A spin-off should be considered if the division is large enough and may be potentially publicly traded.

In addition, management must review existing operations and identify those divisions that don't relate to the primary focus of the company or don't meet internal financial and performance standards. Special strength of each division must also be considered. Does a division provide a unique service, have a special marketing, distribution system or production facilities that may be of more value to another company? Also, the financial aspects must be considered. The historical and projected return on investment needs to be calculated and tabulated for each division.

Using these guidelines and the information determined above, management can focus on three topics. First, the attractiveness and value to others versus the arguments for keeping the division. Secondly, what corrective action would need to be taken to make the division a keeper. Thirdly, the current value of the division to the company. Only after considering all of these factors can a divestiture decision be made for a division.

DIVESTITURE OR RESTRUCTURING PLANNING

Planning for divestitures, as for acquisitions, should be related to the company's overall objectives and long-range plans. Typically, this process requires that management:

- Review existing operations — Identify those lines that either do not relate to primary product areas or do not meet internal financial and operating goals. Special strengths and weaknesses should be inventoried. These might include, for example, the existence (or absence) of special marketing, distribution, or product facilities that might be more valuable to another company
- Calculate each operating unit's historical and projected return on investment (historical and current value) and profit contributions.

- Determine what units are to be divested —Using the information obtained in the steps above, study high-priority divestiture possibilities. Focus on (1) the attractiveness and value to others vs. the arguments for retention, (2) corrective action that might be taken and (3) the current value to the company. Only then should a decision be made about which units, if any, to divest.
- Identify logical acquirers — Identify companies, groups, or individuals for whom the particular strengths of a unit to be divested would be of most value as well as the weaknesses that would be of least concern. Consideration should also be given to selling a unit to management through a leveraged buyout or to employees through an Employee Stock Ownership Plan (ESOP).

The use of these techniques allows employees to become owners of the divested unit and thereby helps ensure their continued employment.

SALE PLANNING

Selling a business is one of the most difficult decisions that management and stockholders face. In the case of publicly owned companies, the decision process is similar to that noted above for acquisition and divestiture planning. In particular the following considerations need to be addressed:

- The company's present position and outlook compared with its long-term goals and objectives.
- Its capabilities for overcoming likely obstacles or threats, and its ability to capitalize on expected opportunities and accomplish long-term goals and objectives.
- Its market value in relation to underlying intrinsic or expected value.
- Its value to others (likely to be realized only through merger) in relation to present market value.
- Alternative approaches to realizing intrinsic value if it is higher than current market value.
- The outlook for the business and reinvestment opportunities compared with the stock market's perception of these factors.

In evaluating the company's present position, outlook and capabilities, the following questions need to be asked:

- Is the company and/or its products nearing *maturity,* thereby indicating that stockholder value might be maximized by sale in the near future? (Note: Studies show that maximum value is achieved through sale while revenues and *profits* are still growing at, or above, their historical rates.?
- Is the company's industry nearing a mature stage?
- Will some form of corporate development activity (e.g., acquisition, new product development, joint venture, marketing arrangements) be required to penetrate the company's markets beyond current levels?
- Are the company's products likely to lose their uniqueness in the near future, and/or is the company unable to make the commitment necessary to maintain the uniqueness of its

products?
- Is the company's market stable or declining? Are capital requirements likely to be a drain on the company in the future due to aging facilities, rapidly growing sales and/or industry, changing technology or increasing competition?
- Is the company finding it difficult to obtain raw materials or labor at competitive prices?
- Is the company's performance (based on key financial ratios) behind the industry norm, or is it declining relative to the rest of the industry?
- Is competition likely to increase in the near future?
- Is management lacking in depth, experience or capability when compared with the rest of the industry?
- Does the company have excess capacity that is unlikely to be filled in the near future?
- Is the company lacking a well-defined strategy for future growth and profitability?
- Is management/employee morale waning for any reason?
- Is the company worth more to others than to current stockholders (i.e., are there potential buyers that can maximize potential quicker than the current stockholders can)? How saleable is the business?
- Will a sale really accomplish the business objectives of the company? Are there better alternatives?

Needless to say, making the decision requires complete objectivity on the part of both privately owned and publicly owned companies. Privately owned companies, however, must also consider the personal objectives of stockholders, whether or not they are active in the business. The questions below are designed to help those stockholders weigh various personal considerations that generally enter into a decision to sell or not sell. These personal considerations, of course, must be evaluated together with the business considerations already noted above:

- Are stockholders who are active in the business also approaching retirement age?
- Does the company have a competent manager to assume leadership of the business upon retirement or death of active stockholders?
- Do the stockholders need to create personal liquidity (for retirement, estate taxes, lifestyle or other reasons) or to diversify investment risk?
- Are there other personal considerations (e.g., personal or family health problems, marital difficulties, family disagreements, disagreements with other stockholders or with management, age, boredom, commitments to philanthropic, civic, leisure and other business activities) that would cause stockholders to consider a sale or that might make them less effective in running the business?
- Will a sale really accomplish the personal objectives of the stockholders? Are there better alternatives?
- What is the value of the business to current stockholders if intangible personal considerations are included compared with its value to others?

Once a decision to sell has been made, in-depth planning should begin. Answers to the following questions should help management and/or stockholders with that planning:

- Have you exploited the strengths of the business and done all you can to minimize the weaknesses?

- Have you estimated the worth of the business vs. its worth in the future?
- Is the timing right for achieving maximum value?
- Do you know the tax ramifications of the sale?
- What form of transaction best satisfies the business objectives and, in the case of privately held companies, the personal objectives of stockholders?
- Has adequate information been assembled to present to potential buyers?
- Who are the logical buyers?
- Have you developed an effective plan to identify and approach those buyers?
- Should you involve an investment banker or merger and acquisition consultant? How should the consultant be chosen and compensated? (Note: Generally, such an adviser should be engaged).
- Do you have a plan to deal with interested buyers, employees, customers and others during the sale process?
- Are there other details that need to be nailed down?

It is particularly important to do everything that can be done to increase the attractiveness of the business prior to sale, such as divesting undesirable assets or improving profitability. It's also important to anticipate the information potential buyers will want and the questions they will ask. A few final questions should also be answered before marketing of the company begins:

- Have all possible buyers been identified, not just the most probable ones?
- How will marketing of the company to possible buyers and inquiries be handled?
- Have pricing strategies been developed?
- Have negotiating strategies been developed?
- Has consideration been given on how to structure the transaction from a financial viewpoint (and a tax and accounting viewpoint as well)?
- Have acceptable forms of financing the transaction by the buyer been considered?
- Have alternative selling strategies been considered?

In summary, management should design an acquisition, divestiture or sale program that identifies major issues and opportunities, analyzes alternatives, fixes responsibility for performance and monitors progress. This overview is intended only to suggest the basic steps involved in acquisition, divestiture and sale planning; each company embarking on such a program should develop a planning system that meets its own special requirements.

EMPLOYEE CONSIDERATIONS

Once the decision to divest a division has been made, there are two approaches to dealing with employees. The first, and least often done, is to be up front and tell them that the division is for sale. This can result in a variety of negative responses. The employees' morale may further deteriorate. (usually the morale is already poor because the division is not doing well). Or worse, the employees' may engage in a job action. The employees can also be a potential source of a buy-out of the company so unless the upper management is very aware with the employees' attitude the decision to tell or not is a difficult one. Another tactic is for management to tell the employees that the division is being sold and offer incentive bonuses to all employees who stay on through the divestiture and following acquisition.

Typically though, the parent company will form a senior management team whose sole function is to divest the division, occasionally even the top management of the division being divested doesn't know it is being sold. There are some reasons behind choosing an upper management team to do the divestiture. First, companies tend to divest in secret. Any leak of the news could cause any of the employee problems mentioned above. This is especially true in the case where finding a buyer may take a long time. (a longer time means more likelihood for a leak). Secondly, the head of a division is never the right person to sell the division. No matter how the decision to divest is sugar coated it is still an admission of failure. This makes it difficult for the managers to take an objective view of the business. It also impedes the decision on who is a suitable and qualified buyer of the company. Having the management team doing the divestiture also avoids or minimizes any conflict between those who may be responsible for the failure and those who were not. The third reason to appoint a top management team to do the divestiture is that it is simply not a job that would be welcomed by lower level managers. It is a thankless task that brings little reward for a hard job well done and has no future. It is a dead-end job!

Because the job falls on senior management, this also creates a problem. Their time is limited, particularly during a period where the company is trying to recover. If the team has little time nor the inclination to do this divestiture, the job performed may be sloppy. The decision analysis could be approximate rather than one based on actual numbers, as may be the selling price.

Also, if pressed for time the team may be restricted to dealing with only one buyer instead of negotiating with many suitors, which will improve the selling price and the return for the parent. This time pressure may be caused by the division's cash requirements rather than the divestiture team time constraints. If the parent can only support the cash drain of the division for a certain time period after the decision to divest, this puts a definite time constraint on the timing of the sale.

MEANS OF DIVESTITURE

After the initial planning of the divestiture, comes the tricky part of approaching potential buyers. The trick involved is to present enough information to peak the interest but also present the need for confidentiality (if required by the situation). The usual technique is to sound out a few potential buyers at a time, to see if they would be interested in acquiring a business in your industry with sales potential of X dollars.

This is done by sending out a short letter or a phone call to the CEO of the possibly interested firms. This communication again should just wet their appetite for information. If they express a desire for further dialogue, a prospectus should be sent. However, if after reviewing the prospectus and no further interest exist, this potential acquirer should be crossed off the list.

The other option depending on the skills and time demands of the members of the divestiture team is to use a third party (broker) to find suitable buyers and enter into negotiations. The use of the third party will in many cases provide a veil of secrecy, if needed. The third party is also useful in trying to market the division on a worldwide scale. This can get exposure for the division, which is particularly important where the parent or division had no previous exposure.

VALUATION AND APPRAISAL IN DIVESTITURE

When the time comes to sell a division, an asking price needs to be determined. Valuation of a division is not an exact science, and in the final analysis the value of a division is in the eye of the purchaser. While the expertise of an investment banker or business broker can and should be enlisted in setting the price of the division there are some standard accounting methods that can be used to estimate a division's value. A business broker will usually be very willing to help in the initial estimate phase in hopes that they will get the opportunity to act as your agent in selling the division. These valuation methods will be broken down into asset valuation methods, those based on sales and income, and those based on market comparisons. Although these methods vary in their applicability and depend on certain facts and circumstances they can be used to determine a range of values for a division.

There are basically four groups of methods of valuation or appraisal: (1) asset valuation methods, (2) sales and income methods, (3) market comparison methods, and (4) discounted cash flow methods.

ASSET VALUATION METHODS

Asset valuation methods are based on the asset value of a business segment. Four popular methods are described below.

Adjusted Net Book Value

One of the most conservative methods of valuation is the adjusted net book value, because it determines the value based on historical (book) value and not on market value. This can be adjusted to compensate for this shortage by adding in such items as favorable lease arrangements, and other intangible items such as customer lists, patents, and goodwill.

Replacement Cost

Another method is the replacement cost technique. It asks, "What would it cost to purchase the division's assets new?" This method will give a higher division value than the adjusted net book value method and is therefore good for adjusting the book value to account for new costs. This figure can also be used as a basis for determining the liquidation value of the division's assets. The most reasonable value comes from adjusting the replacement value for depreciation and obsolescence of equipment.

Liquidation Value

The liquidation value is also a conservative estimate of a division's value since it does not consider the division’s ongoing earning power. The liquidation value does provide the seller with a bottom line figure as to how low the price can be. The liquidation value is determined by estimating the cash value of assets assuming that they are to be sold in a short period of time. All the liabilities, real and estimated, are then deducted from the cash that was raised to determine the net liquidation value. Liquidation value can be determined based on fire sale prices or on a longer-term sales price. Obviously, the fire sale value would be lower.

Secured Loan Value

The secured loan value technique is based on the borrowing power of the division's assets. Banks will usually lend up to 90% of the value of accounts receivable and anywhere from 10-60% on the value of inventory depending on the quantity of the inventory in the conversion process.

SALES AND INCOME FACTORS

Using sales and/or income figures as the basis for valuation can be made in two different ways.

Price-Earnings (P-E) Ratios

The P-E ratio for publicly held companies is known and therefore valuation is made easy. The division's value can be determined by multiplying the P-E ratio by the expected earnings for the division. This will give a derived price that all suitors can readily understand. The earnings can be estimated from quarterly or annual reports published by the company.

For privately held companies, however, it is difficult to determine a P-E ratio as the stock of the company is not traded and the earnings are rarely disclosed. However, the earnings can be estimated and an industry average P-E ratio can be used in the calculation to estimate the private company's sales value.

Sales or Earnings Multiples

There are many rules of thumb that can be used when estimating a division's value based on a multiple of sales or earnings. For example, insurance agencies sell for 200% of annual commissions or liquor stores sell for 10 times monthly sales. Another example would be radio stations selling for 8 times earnings or cash flow. These rules are fast and dirty and may result in a completely erroneous estimate of a division's value. Most business brokers will know these rule of thumb values to assist management in estimating the value of a division.

MARKET BASED COMPARISONS

Every day that a public company is traded on the stock market a new value is assigned to it by the traders. Thus, the stock price can be compared to equivalent companies, in terms of products, size of operations, and average P-E ratios. From these P-E ratios, an estimated sales price can be estimated as described earlier.

In the case of private companies, it is difficult for the buyer to determine the earnings of the company. However, they can compare the company to other companies that are publicly traded. Comparison to publicly traded companies is necessary as the sales price is typically disclosed in the sale or acquisition announcement.

DISCOUNTED CASH FLOW ANALYSIS

Another method of determining value of a business segment is to use discounted cash flow (DCF) analysis. This bases the value of the segment on the current value of its projected cash flow. In theory, this method should result in a division's value being equal to that determined by one of the P-E ratio calculations, since both reflect the current worth of the company's earnings. In actuality, discounted cash flow is basing the value of the company on actual forecasted cash flows whereas the stock market is basing the stock price on other things including the markets perception of the company and its potential cash flow.

The DCF method requires information on:

- Forecasted actual cash flows.

- Assumed terminal (residual) value of the division at the end of the forecast period (book value, zero, or a multiple of earnings are frequently used).
- Discount rate. Choosing the right discount rate is the key to the successful use of the DCF technique. It must take into account the following factors:
- Purchaser's expected return on investment (ROI)
- Purchaser's assessment of risk
- Cost of capital
- Projected inflation rates
- Current interest rates

In general, whichever method of evaluation is chosen it is wise to check that resulting value with at least one other method to see if it is a reasonable figure. We have to be careful of excessively high or low figures. It is also a good idea to determine the liquidation value of the company or division, as this will set a *floor* for negotiations.

AN ILLUSTRATION: DISCOUNTED CASH FLOW ANALYSIS

Management will choose to divest a segment of their business if they perceive that the action will increase the wealth of the stockholders, as reflected in the price of the firm's stock. It can be further said that the price of the firm's stock will react favorably to a divestiture if the new present value of the transaction is perceived by the market to be positive.

Should a profitable business segment be retained and not divested, it would generate annual cash inflows for a particular or infinite number of years. Discounted cash flow analysis involves a comparison of initial incoming cash flows resulting from the sale of a business unit with the present value of the foregone future cash inflows given up by the firm. Foregone future cash flows refer to the cash flows that the business unit is anticipated to generate and will do so for the acquiring firm. The divesting firm gives up these cash inflows in exchange for the selling price of the business segment. For divestiture analysis to be of any value, the foregone future cash flow must be accurately estimated. The present value of these future inflows are found by discounting them at the firm's weighted average cost of capital, k.

EXAMPLE 20

Exhibit 4 shows estimated cash inflows and outflows for a fictitious divestment candidate (FDC) over the next five years. The cash flows represent the best estimates by the managers of FDC's parent company and they further believe that FDC will be able to be sold at its residual value of $58.7 million in five years.

The firm's cost of capital is assumed to be known and is 15%.

The net present value of the future cash inflows of FDC is $47.26 million. If FDC were to be divested, the managers of its parent company should only consider selling prices greater than this amount. This logic also assumes that the $47.3 million can be reinvested at a 15% rate of return.

Another way of looking at this valuing task makes use of the following equation for divestiture net present value (DNPV):

$$\text{DNPV} = \text{I} - \sum \frac{\text{NCF}_t}{(1+k)^t} \qquad (1)$$

where I = the selling price of the business unit and NCF_t = net cash flow in period t. If a $50 million offer was made by a firm for FDC, the DNPV from Equation 1 will equal $2.7 million, as shown below.

$$\text{DNPV} = 50 - \frac{9.8}{1.15} + \frac{3.4}{1.15^2} + \frac{2.4}{1.15^3} + \frac{5.8}{1.15^4} + \frac{62.9}{1.15^5}$$

DNPV = $50 - $47.26 = $ 2.74 Million.

EXHIBIT 4
FDC's CASH FLOW PROJECTIONS (IN MILLIONS)

Cash Inflows	*1*	*2*	*3*	*4*	*5*
Net Operating Profit	$ 3.10	$ 3.60	$ 4.00	$ 5.10	$ 6.00
Depreciation	2.1	2.4	1.8	2.3	2.1
Residual Value					58.7
Total	$ 5.20	$ 6.00	$ 5.80	$ 7.40	$ 66.80
Cash Outflows					
Capital Expenditure	$ 1.70	$ 1.30	$ 0.80	$ 2.10	$ 1.70
Increase (Decrease)					
in working Capital	-6.3	1.3	2.6	-0.5	2.2
Total	-$4.60	$2.60	$3.40	$1.60	$3.90
Net Cash Inflow (NCF)	$ 9.80	$ 3.40	$ 2.40	$ 5.80	$ 62.90
Present value of $1*	0.8696	0.7561	0.6575	0.5718	0.4972
Present Value	$8.52	$2.57	$1.58	$3.32	$31.27
Total present value	$47.26				

*Note: Table 1 = Present value interest factor for the cost of capital of 15%.

From a financial point of view, this divestment is acceptable. If the divestment candidate has an unlimited life, such as a division in a healthy industry, then cash flows must be forecasted to infinity. This task is made simple by treating the cash flows similarly to a constant growth stock and value accordingly. If the cash inflows are expected to remain constant (zero growth) to infinity, than the present value of the NCF can be determined in the same manner as for a preferred stock, or perpetuity. In this case, the DNPV will be

$$DNPV = I - \frac{NCF}{k} \qquad (2)$$

For future cash flows that are expected to grow at an after tax rate of g, the present value of those flows can be found using the constant growth valuation model. In this case, the DNPV will be

$$DNPV = I - \frac{NCF_1}{k - g} \qquad (3)$$

where NCF_1 = the expected NCF in the next period.

A final situation encountered often when evaluating divestiture candidates is the case where the NCFs are expected to be uneven for a number of years followed by even growth. In this case, the DNPV can be found as

$$DNPV = I - \frac{NCF_1}{(1+k)^1} + \frac{NCF_2}{(1+k)^2} + \ldots + \frac{NCF_{c-1}}{(k-g)} \text{ x } \frac{1}{(1+k)}$$

where NCF_1 and NCF_2 represent foregone cash flows in periods 1 and 2 and c = the first year in which constant growth applies.

Firms should only divest of assets with positive DNPVs. To do so will increase the value of the firm and subsequently, the price of its stock. If two different candidates are mutually exclusive, the one with the highest DNPV should be chosen since this will increase the value of the firm the most. If divestiture is forced by the government, for example, and the firm finds it has a choice of candidates, all with negative DNPVs, it should divest the one whose DNPV is closest to zero, since this will reduce the value of the firm the least.

DIVESTITURE WITH UNCERTAINTY

Due to the difficulty in predicting the NCFs and also in knowing what kinds of prices will be offered for the divestment candidate, the divestment's net present value is normally uncertain.

For situations involving an unknown selling price (due to a lack of offers) the parent firm can either elect not to divest of the candidate or set its asking price such that the DNPV will equal zero. This should be the minimum they are willing to accept. They can also look for other divestment candidates that offer promising DNPVs.

Adjusting for uncertain NCFs is much more difficult and while there is no generally accepted method for accounting for this risk, there are a number of useful techniques that are borrowed from capital budgeting and can be used here.

Risk Adjusted Discount Rate
Employing a risk-adjusted discount rate is one technique that can be used to account for the uncertainty of the expected NCFs. In the previous examples, the firm's weighted average cost of capital was used to discount the NCFs to their present value. This is an appropriate choice when the divestiture candidate is as risky as the firm itself. When it is more risky, the use of a higher discount rate can be used for adjustment. This will reduce the present values of the cash flows and increase the DNPV. This is logical since a relatively risky divestment candidate with uncertain cash flows will be of less value to the firm, in present dollars. The added benefit of divesting such a candidate will be reflected in the increased DNPV. On the other hand, when the NCFs are more certain than those of the rest of the firm, the discount rate should be lowered. This lowers the DNPV and makes the divestiture less attractive. Equation 1 can be rewritten as shown below:

$$\text{DNPV} = \text{I} - \sum \frac{\text{NCF}_t}{(1+k')^t}$$

where all terms are the same except for k' which now is the adjusted rate to be used for discounting the cash flows. Using data from Table 2 and assuming that the divestment candidate is less risky than the firm as a whole (lowering k from .15 to .14) shows:

$$\text{DNPV} = 50 - \frac{9.8}{1.14} + \frac{3.4}{1.14^2} + \frac{2.4}{1.14^3} + \frac{5.8}{1.14^4} + \frac{62.9}{1.14^5}$$

DNPV = \$50 - \$48.94 = \$ 1.06 Million.

	1	*2*	*3*	*4*	*5*
Net Cash Inflow (NCF)	\$ 9.80	\$ 3.40	\$ 2.40	\$ 5.80	\$ 62.90
PV of \$1**	0.8772	0.7695	0.675	0.5921	0.5194
Present Value	\$8.60	\$2.62	\$1.62	\$3.43	\$32.67
Total PV:	\$48.94				

***Note: Table 1 = Present value interest factor for the cost of capital of 14%.

Using a lower discount rate lessened the DNPV by \$1.68 million (\$2.74 million - \$1.06 million). This is reasonable in that the attractiveness of a divestment candidate at a certain selling price will be lessened as the candidate is found to be less risky.

Sensitivity Analysis
Sensitivity analysis is another technique that can be used in making divestiture decisions. In sensitivity analysis, the parent company evaluates the effect that certain factors have on the NCFs. For example, a divestment candidate's NCFs might be largely influenced by the price of copper, the US Navy Defense budget, and upcoming union contract talks. For these three influencing factors, a number of different scenarios or forecasts can be projected, each with their expected NCFs. For instance, the expected NCFs would be highest in the scenario where all three

influencing factors are favorable. Having evaluated the NCFs and DNPVs for different scenarios, the parent firm has a better understanding of the range that the NCFs might fall in and also what factors influence them the most. Further, if the probability of the scenarios can be forecasted, statistical techniques can be used to give the probability of realizing a negative DNPV, the expected DNPV and the standard deviation, and coefficient of variation of DNPVs. This information would be very useful in making divestment decisions. It should be noted that the NCFs using sensitivity analysis are discounted at the firm's weighted average cost of capital.

Simulation

Simulation is a third technique used to account for the uncertainty of future cash flows. It is similar to but more sophisticated than the sensitivity analysis previously discussed. In simulation, the parent firm's managers first identify key factors that they believe are likely to influence the NCFs of a divestment candidate. Next they create a probability distribution describing the future outcome of each key factor. The managers finally must specify the impact of each key variable on the NCFs and ultimately the DNPVs. The firm's cost of capital is again used to discount the NCFs.

Computer programs are available to assist managers in the simulation analysis. After the data has been input and the program run, the computer will estimate NCFs and corresponding DNPVs over the whole range of probabilities. From this distribution, the analyst can determine the expected DNPV and the probability that the actual DNPV will be above or below some critical value. The uncertainty associated with the DNPV can also be determined, as measured by the dispersion of possible DNPV value. It is important to note that this technique is only as good as the input it receives from managers, and even then, it cannot make a firm's divestment decision. It does, however, provide a comprehensive evaluation of the divestiture proposal. *Note:* The major assumptions of the valuation must be clearly spelled out. A variety of "what-if" scenarios must be investigated to reduce valuation errors.

CLOSING THE FORM OF THE TRANSACTION

Various considerations have an important impact on the form of the transaction.

Cash versus "Paper"

The seller's willingness to accept notes or stock of the buyer is determined partially by the personal need for current cash and more importantly by the quality and liquidity of the buyer's "paper." The seller who is not in need of immediate liquidity may, therefore, be somewhat flexible in this respect. The principal advantages of accepting the buyer's "paper" versus accepting cash are:

- It may increase the number of potential purchasers and the selling price.
- It may make it possible to structure the deal as a nontaxable transaction.
- If the interest and/or dividend rate is set at an attractively high level, it may present the seller with a better-yielding investment than he could otherwise obtain. The seller may be in a better position to follow and understand this investment as well.
- If attractively yielding preferred stock is taken back, the seller will hold a preferential position over common equity holders and the risk of a decline in value may, therefore, be lessened. Conversion, participation or other equity features may permit the seller to benefit from future appreciation of the underlying common stock.
- When marketable stock is received in a nontaxable transaction, the seller has substantial

freedom in deciding when to "cash in" on his "realized" but unrecognized gain. Future tax planning may be easier, and the shareholder may avoid bunching and alternative minimum tax problems.

- Installment sales reporting (matching the tax liability with collection of the principal on notes received) may allow for the deferral of tax payment to when the cash is received.
- Elderly stockholders may permanently escape the payment of tax by allowing the "paper" to be stepped-up to current fair value in their estate upon death.

Advantages of cash are:

- The risk of nonpayment does not exist.
- "Paper," particularly common stock, usually has considerable downside investment risk.
- The ability of successor management is not as important.

Installment Sales

Changes in the installment sales provisions have expanded their application to sales of businesses. The general purpose of these rules is to achieve a matching of the tax liability with the collection of cash. Thus, when one-tenth of the purchase price has been collected, one-tenth of the gain will be taxed. The principal changes are as follows:

- There is no longer a 30% limit on the amount that can be received in the year of the sale. Thus, the installment method can be utilized even when 90% of the sales price is collected in the year of the sale.
- Special rules have been added to make the installment method available when the purchase price is contingent in amount.
- Tax is no longer triggered when installment notes received during the course of a 12-month liquidation are distributed in the liquidation.

Contingent Earnout Arrangements

In both taxable and nontaxable transactions, the seller and the buyer may disagree on the growth potential for the business and, therefore, on its value. Such disagreements can be remedied by structuring an earnout contingency whereby the amount of stock issued or cash paid is increased if earnings exceed agreed levels. In nontaxable transactions, care must be exercised when incorporating such features. The IRS has published guidelines that can be followed to produce the desired results. In taxable transactions in which an allocation of the purchase price must be made, the rules regarding the allocation of contingent payments are unsettled. The IRS may assert that contingencies based upon future earnings should be treated as nondeductible goodwill.

Leveraged Buyouts (LBO)

The term "leveraged buyout" refers to a very popular form of taxable transaction in which the purchase price is funded primarily by lenders rather than by the buyer. *From the seller's perspective, it is a cash sale, but from the perspective of the purchaser, it is largely a "paper" transaction.* In a management leveraged buyout, key members of the management join or organize the buyer's equity group and must contribute their own funds or shares held in the seller's name to the transaction. These transactions are more complex than most because they involve additional participants (lenders, management and the equity investors), each of which must be satisfied with the transaction.

The tax consequences of the transaction are generally no different than those of any taxable transaction. Thus, the buyer must decide whether to take advantage of the step-up opportunities. Similarly, the sale of assets versus stock must also be analyzed by the participants.

Expanding Concept

The LBO is an evolving and expanding concept. The lenders are increasingly basing financing on cash flow rather than on the collateral value of assets, thereby making this a viable option for businesses with high cash flow but nominal physical assets. Because of the large profits that can be reaped by the equity participants, numerous leveraged buyout firms have been established, some of which specialize in smaller transactions. These firms have established relationships with interested lenders.

The LBO technique also permits the seller the choice of retaining a portion of his equity interest, thereby providing considerable flexibility to the seller in "cashing-out" versus sharing the future appreciation in the business' value.

What Makes a Good LBO Candidate?

The principal qualifications for a good LBO candidate are:

- Stable cash flow.
- Moderate growth prospects.
- Sound management.
- Ability to cover pro forma debt service and repay all debt in 10-20 years.

Regulated Investment Company Technique

If the selling shareholder(s) in a taxable transaction is not in need of cash but does have an interest in developing a diversified investment portfolio, an asset sale may be used advantageously. Instead of distributing the sales proceeds to the shareholder(s) and liquidating the corporation, which may result in substantial capital gains tax, the sale's proceeds could be left in the corporation and used to build the desired diversified investment portfolio. This technique is most popular when the tax basis of the corporation's assets is much greater than the shareholder's stock basis. In such a situation, a corporate sale of assets may produce a relatively low gain, or maybe even a loss, while the sale of the shareholder's stock may produce a much larger gain. In order to avoid or minimize the imposition of a duplicate tax on portfolio earnings, once to the corporation and a second time to the shareholder(s), this tactic requires either that the corporation invest in securities eligible for the 85% dividends-received deduction so that any double taxation is minimized, or that it qualify as a regulated investment company (more commonly known as a mutual fund), which means that there is at least 100 remaining stockholders. Regulated investment companies are not generally subject to corporate tax if they distribute the income earned to their shareholders. Of course, those stockholders who do desire cash may redeem their shares.

Recapitalizations

The "recapitalization" is a nontaxable exchange that is typically used to pass control of a corporation to new owners, frequently the younger generation. The recapitalization leaves the former owners with a nonappreciating but safer income-producing equity interest. Appreciation that accrues after the recapitalization is for the benefit of the new common stockholders.

This transaction does not provide current liquidity and generally does not require the involvement of investment bankers, except possibly to evaluate the worth of the business at the time of the recapitalization. This is a relatively old and well-established technique.

ESOP Techniques

ESOPs (*Employee Stock Ownership Plans)* are frequently used where broad-based employee ownership is appropriate. They are also used occasionally to provide more equity in a LBO. In these transactions the ESOP borrowings are used to purchase stock, thereby providing working capital to the employer corporation. The corporation makes an annual contribution to the plan to cover the ESOP's debt service. The contributions are fully tax deductible, even though they are comprised of interest and principal components.

Partial Sale Transactions

If the owner desires to maintain a substantial continuing equity position, he may wish to consider a transaction in which he sells only a portion of his interest in the business. The following transactions might accomplish this objective:

- Public offering of a minority position.
- Private placement of a minority position.
- Syndication of business real estate.

ACCOUNTING FOR DIVESTITURES

The accounting method for divestitures in the financial statements of the divesting company depends on whether the unit being divested qualifies as "a segment of a business."

If a divestiture qualifies as a segment of a business, the results of operations of the divested entity should be retroactively deconsolidated and reported separately from income from continuing operations as a component of income before extraordinary items.

If the divestiture does not qualify as a segment of a business, the results of operations and assets and liabilities are still deconsolidated, but prospectively rather than retroactively. In addition, results of these operations cannot be reported separately as a discontinued business. Instead, they must be reported as part of income from continuing operations. If material, these results of operations should be disclosed separately as a component of income from continuing operations (e.g., as gain/loss on the sale of a business).

As per APB Opinion Number 29 *(Accounting for Nonmonetary Transactions),* a gain or loss cannot be recognized on a corporate divestiture. However, disclosure should be made of the nature and terms of the divestiture.

If there is an exchange of stock held by a parent in a subsidiary for stock of the parent company itself held by stockholders in the parent, there is a non-pro rata spinoff of the business segment because a reorganization is recorded at fair value. However, if there is a spinoff of a targeted company distributed on a pro rata basis to the one holding the applicable targeted stock, it should be recorded at historical cost as long as the targeted stock did not arise in contemplation of the later spinoff. If the contemplated situation did in fact exist, then the transaction is recorded at fair value. In a spinoff, there is a distribution of shares in the business segment, with the investor's shares being exchanged on a pro rata basis for the shares of the new company. In a spinoff, the transaction is, in effect, the purchase of treasury stock. Retained earnings is not changed.

In a spinoff, there is a distribution of the segment's shares to the investor's shareholders without the holders surrendering their shares.

In some cases, a spinoff may be treated as a discontinued operation of a business segment.

EXAMPLE 21
J Company declares and pays a dividend to stockholders of 200,000 shares common stock of K Company. The investment in K Company at the date of spinoff under the equity method was $900,000.

The journal entries follow:

Retained earnings	900,000	
Property dividends payable		900,000
To record the declaration of the property dividend.		

Property dividends payable	900,000	
Investment in V Company		900,000
To record the payment of the propertydividend.		

Note that in a spinoff no gain or loss is recorded.

Assume the same information except that in exchange for the 200,000 shares of K Company, J Company's stockholders give up 50,000 shares of J Company's common stock. The journal entry at the spinoff date is:

Treasury stock	900,000	
Investment in K Company		900,000
To reflect the purchase of treasury stock in exchange for the investment in K Company.		

In a splitup, there is a transfer of the operations of the original entity to at least two *new* entities.

EXAMPLE 22

L Company transfers Division A to M Company (a newly formed company) and its Division B to N Company (a newly formed company). L Company only had divisions A and B, so it terminates in existence. L Company shareholders receive a half share in M Company and a half share in N Company each one share of L Company.

Divisions A and B have the same book value of net assets.
Prior to the transfer, L Company's assets were $1,000,000, liabi1ities were $600,000, and equity was $400,000.

The liquidation entry to record the termination of L Company is:

Liabilities	600,000	
Stockholder's equity	400,000	
Assets		1,000,000

The entry to record M Company and N Company (the newly formed companies) would be identical based on the information given in this example. The entry is

Assets	500,000	
Liabilities		300,000
Paid-in-capital		200,000

ACCOUNTING FOR THE DISPOSAL OF A SEGMENT OF A BUSINESS

APB Opinion No. 30 provides specific guidelines for accounting and reporting the effects of the disposal of a segment of a business. A "segment of a business" refers to a component of an entity whose activities represent a separate major line of business or class of customer. A segment may be in the form of a subsidiary, a division or a department, provided that its assets, results of operations and activities can be clearly distinguished — physically, operationally and for financial reporting purposes — from other assets, results of operations and activities of the entity. Operations of a segment that have been or will be sold or discontinued should be retroactively "deconsolidated" and reported separately from "income from continuing operations" on the face of the income statement as a "discontinued business" component of "income before extraordinary items~~?~~'

The assets and liabilities of the divestiture should also be deconsolidated and reported net in one or several summary lines in the balance sheet.

The actual or estimated gain or loss from disposal of a segment should be included in the reported results of operations of the segment in the year in which the divestiture plan is adopted.

Income from continuing operations before income taxes
Provision for income taxes
Income from continuing operations
Discontinued operations (Note 0):
Income (loss) from operations of discontinued Division X (less

applicable income taxes of $
Loss on disposal of Division X, including provision of $ operating losses during phaseout period (less applicable income taxes of $
Net income

Dispositions in Form Only
Discontinued operations treatment should not be applied to the disposition of an operation when the risks of ownership have not, in substance, been transferred. This may be the case when (1) there is continuing involvement by the seller after disposal, (2) the principal consideration debt of the buyer with repayment depends on the success of future operations, or (3) significant debt or other performance guarantees are made by the seller. Although losses on such disposals should be recognized, gains should generally not be recognized until the uncertainty over the realization of the gain has been removed, at which time discontinued operations treatment should be applied.

Disclosure Requirements
APB Opinion No. 30 provides for significant disclosures relating to the disposal of a segment of a business. The disclosure requirements include the identity of the segment, expected disposal date, manner of disposal, a description of any remaining assets and liabilities of the segment at the balance-sheet date, income taxes applicable to the results of discontinued operations and the gain or loss and any proceeds expected from the disposal of the segment as of the balance-sheet date.

Expenses Related to a Divestiture
Under the provisions of *APB Opinion No. 30,* costs and expenses directly associated with the decision to dispose of a segment, which may include severance pay, additional pension costs, employee pension expenses and so on, must be charged to income as part of the results of operations of the discontinued business.

Subsidiaries Sold to the Public or Spun Off (Carveout Accounting)
When shares of a subsidiary (or a segment of a business that is subsequently incorporated) are initially sold to the public or spun off or when debt securities are initially sold to the public by a subsidiary, the SEC requires that the financial statements of the subsidiary in the prospectus include all expenses incurred by the parent on the subsidiary's behalf. To the extent that they have not been charged to the subsidiary in the past, the expenses must be retroactively reflected with the offsetting credit recorded in paid-in capital. The SEC's policy also applies to credits allocable to the subsidiary (e.g., management fees to the subsidiary in excess of the underlying cost of the services rendered). In such cases, the adjustment would be treated as a dividend to the parent.

The SEC also requires disclosure in the notes to the financial statements of management's estimates of what the expenses of the subsidiary would have been on a standalone basis when such expenses are significantly different from those reflected in the statements. Such estimates, however, should not be recorded in the historical statements. Further, it requires that the pro forma statements reflect or disclose (1) a separate-return income tax provision, (2) the effects of terminated or revised agreements with the parent, (3) dividends declared after the date of the balance sheet and (4) certain other adjustments. Lastly, in certain cases, historical earnings per share are not permitted and, when the entity was not a legal entity, retained earnings prior to incorporation may not be carried forward.

LIQUIDATION PROCESS

Divestment of a company or division is nearly always preferred to liquidation even though liquidation may provide the greatest potential for monetary gain. The reason why it is not the method of choice is that it usually takes longer to liquidate a business than it does to sell one outright. However, should the case exist where the value of the business is zero or less and no buyer can be found, liquidation becomes the obvious alternative. Liquidation may be so expensive that it is not feasible. Due to the cost of getting out of leases, contracts and possible salary continuation requirements, it may be cheaper to pay the existing management or entrepreneur to take over the business. The other option is bankruptcy.

The liquidation can be accomplished by contacting a liquidation company and having them perform all of the work involved in the liquidation process such as asset valuation, advertising the sale, negotiating the sale prices, and collecting the money for the goods. From this they will take a prenegotiated sum of money for their services. Another technique involves doing all the work in-house that the liquidation company would do and contacting competitors and various vendor representatives in the area and alert them to the fact you will be having a going out of business sale. They will typically already know you are about to go out of business since word has probably already spread in these circles.

CONCLUSION

The present business environment has made both divestiture and diversification an acceptable strategy for business to pursue. The requirement for public disclosure of business segment operating results has forced management to take action when a segment is not performing to company standards. Their action has been divestiture of the undesirable divisions. However, there are other alternatives for underperforming divisions. Divestiture has become an accepted method of dealing with problem business segments.

When developing the strategies involved with divestiture, management must consider the interrelationships between that division and the rest of the company and the costs of discontinuing that operation. The carrying out of a divestiture has an effect across the whole company including production, distribution, and marketing. Divestiture may also greatly affect the public's image of the company.

When considering divestiture as an alternative, all of these factors must be evaluated. The divestiture decision must be closely thought out.

APPENDIX
TABLE 1
PRESENT VALUE OF $1

Periods	4%	6%	8%	10%	12%	14%	20%
1	0.962	0.943	0.926	0.909	0.893	0.877	0.833
2	0.925	0.890	0.857	0.826	0.797	0.769	0.694
3	0.889	0.840	0.794	0.751	0.712	0.675	0.579
4	0.855	0.792	0.735	0.683	0.636	0.592	0.482
5	0.822	0.747	0.681	0.621	0.567	0.519	0.402
6	0.790	0.705	0.630	0.564	0.507	0.456	0.335
7	0.760	0.665	0.583	0.513	0.452	0.400	0.279
8	0.731	0.627	0.540	0.467	0.404	0.351	0.233
9	0.703	0.592	0.500	0.424	0.361	0.308	0.194
10	0.676	0.558	0.463	0.386	0.322	0.270	0.162
11	0.650	0.527	0.429	0.350	0.287	0.237	0.135
12	0.625	0.497	0.397	0.319	0.257	0.208	0.112
13	0.601	0.469	0.368	0.290	0.229	0.182	0.093
14	0.577	0.442	0.340	0.263	0.205	0.160	0.078
15	0.555	0.417	0.315	0.239	0.183	0.140	0.065
16	0.534	0.394	0.292	0.218	0.163	0.123	0.054
17	0.513	0.371	0.270	0.198	0.146	0.108	0.045
18	0.494	0.350	0.250	0.180	0.130	0.095	0.038
19	0.475	0.331	0.232	0.164	0.116	0.083	0.031
20	0.456	0.312	0.215	0.149	0.104	0.073	0.026
30	0.308	0.174	0.099	0.057	0.033	0.020	0.004
40	0.208	0.097	0.046	0.022	0.011	0.005	0.001

TABLE 2
PRESENT VALUE OF AN ANNUITY OF $1

Periods	4%	6%	8%	10%	12%	14%	20%
1	0.962	0.943	0.926	0.909	0.893	0.877	0.833
2	1.886	1.833	1.783	1.736	1.690	1.647	1.528
3	2.775	2.673	2.577	2.487	2.402	2.322	2.106
4	3.630	3.465	3.312	3.170	3.037	2.914	2.589
5	4.452	4.212	3.993	3.791	3.605	3.433	2.991
6	5.242	4.917	4.623	4.355	4.111	3.889	3.326
7	6.002	5.582	5.206	4.868	4.564	4.288	3.605
8	6.733	6.210	5.747	5.335	4.968	4.639	3.837
9	7.435	6.802	6.247	5.759	5.328	4.946	4.031
10	8.111	7.360	6.710	6.145	5.650	5.216	4.192
11	8.760	7.887	7.139	6.495	5.938	5.453	4.327
12	9.385	8.384	7.536	6.814	6.194	5.660	4.439
13	9.986	8.853	7.904	7.103	6.424	5.842	4.533
14	10.563	9.295	8.244	7.367	6.628	6.002	4.611
15	11.118	9.712	8.559	7.606	6.811	6.142	4.675
16	11.652	10.106	8.851	7.824	6.974	6.265	4.730
17	12.168	10.477	9.122	8.022	7.120	6.373	4.775
18	12.659	10.828	9.372	8.201	7.250	6.467	4.812
19	13.134	11.158	9.604	8.365	7.366	6.550	4.844
20	13.590	11.470	9.818	8.514	7.469	6.623	4.870
30	17.292	13.765	11.258	9.427	8.055	7.003	4.979
40	19.793	15.046	11.925	9.779	8.244	7.105	4.997

GLOSSARY

Asset Spinoff The defending party identifies the assets most desirable to the raider. It then spins off the assets to one of its separate companies or sells them to a third party. Recent examples are Union Carbide and Marathon Oil.

Capitalization The conversion of income into value. The capital structure of a business. The determination of an asset value based on expenditures.

Capitalization factor The inverse of a capitalization rate. For example, a capitalization rate of 25% is a capitalization factor of 4.0 (1.0/25%). Capitalization factors and capitalization rates are used interchangeably by appraisers.

Capitalization of earnings valuation method A valuation methodology that presumes the value of a business is generally determined by dividing its earnings by the investment rate of return the business should yield for investors.

Capitalization rate A divisor used to convert an income amount into a value equivalent. The rate used in the denominator of the capitalization of earnings method. Generally determined to be the rate of return expected for an investment, reduced by the growth expected for the investment. A key component of many valuations is the determination of this rate.

Capital structure Usually, the percentage of the company's invested capital made up of interest bearing debt and equity. Possibly, the composition of the liabilities and equity side of the balance sheet. Possibly, values restated to fair market values.

Cash flow Cash income created by a company. Often defined as net cash flow or gross cash flow.

CDOs *See* corporate development officers (CDOs).

Conglomerate merger This occurs when two companies in unrelated industries combine, such as where an electronics company joins with an insurance company.

Consolidation With a consolidation, two or more companies combine to create a new company. None of the consolidation firms legally survive. For example, companies A and B give all their assets, liabilities, and stock to the new company, C, in return for C's stock, bonds, or cash.

Corporate development officers (CDOs) The heads of in-house merger and acquisition teams.

Discounted earnings valuation method A valuation methodology that presumes the value of a business or ownership holding is equivalent to the expected earnings anticipated for the company in future years. A conceptually sound methodology often dismissed as being too speculative to be valuable for fair market value appraisals.

Discount rate A rate of return used to convert a value in the future into a present value. The rate of return used to discount future values to present values in the discounted earnings valuation method.

Discretionary cash flow Cash flows of a business generally available for distributions to owners and for reinvestment.

Divestiture involves the partial or complete conversion, disposition and reallocation of people, money, inventories, plants, equipment and products.

Due diligence An investigation or audit of a potential investment. Due diligence serves to confirm all material facts in regards to a sale. Generally, due diligence refers to the care a reasonable person should take before entering in an agreement or transaction with another party.

Excess earnings valuation method A valuation method that presumes a company should be able to earn a predictable level of income based on its tangible assets. To the extent the company earns more than the predictable level of income, capitalized, the company is deemed to have intangible assets. Also referred to as the "formula" method, the IRS method, and the Treasury method.

Fair market value The price at which property would change hands between a willing buyer and a willing seller, in an arm's length transaction, when both parties have relevant knowledge of the facts, and neither is compelled to buy or sell. The definition of value for tax valuations and many others.

Golden parachute Management compensation arrangements that are triggered when there is a purchase of the business such as lump-sum benefits, employment agreements, and stock options. Recent examples are Greyhound and Hughes Tool.

Greenmail The target company buys back the stock accumulated by the raider, at a premium. Recent examples are Texaco, Walt Disney, and Goodyear.

Herfindahl-Hirshman Index (HHI) The sum of the squared market shares multiplied by 10,000 to eliminate the need for decimals. By squaring the market shares before adding them up, the index weights firms with high market shares more heavily. The value of the Herfindahl-Hirshman Index lies between 0 and 10,000. A value of 10,000 exists when a monopolist exists in the industry. A value of zero results when there are numerous infinitesimally small firms. The HHI is used by the Department of Justice to evaluate horizontal merges.

Holding company One whose sole purpose is to own the stock of other companies. In a tender offer, the buyer goes directly to the stockholders of the target business to tender (sell) their shares, typically for cash.

Horizontal merger This occurs when two companies in a similar business combine. An example is the combining of two airlines.

Leveraged buyouts (LBO) refers to a very popular form of taxable transaction in which the purchase price is funded primarily by lenders rather than by the buyer.

Liquidation value The value of a business not as a going concern. Often, the accumulated value of a company's assets (less liabilities) presuming the assets are sold separately.

Merger In a merger, two or more companies are combined into one, where only the acquiring company retains its identity. Generally, the larger of the two companies is the acquirer.

PAC-MAN The defending company makes a counteroffer for the stock of the raiding company. Recent examples are American Brands and Bendix Corporation.

Poison pill When a hostile bid is eminent, the targeted company takes out significant debt (or issues preferred stock) that makes the company unattractive to the hostile acquirer because of the high debt position.

Price/earnings valuation method The valuation of a company or ownership interest in which a ratio determined by publicly traded stocks or sales of closely held businesses is used to value the subject business. For example, if the price/earnings ratio is determined to be 6.2, and the subject company's earnings are $100,000, the value of the company is estimated to be $620,000 ($100,000 times 6.2).

Purchase method involves either the payment of assets or incurrence of liabilities for the other business. To effect a purchase, more than 50% of voting common stock has to be acquired.

Recapitalization is a nontaxable exchange that is typically used to pass control of a corporation to new owners, frequently the younger generation.

Self-Tender After a hostile bid, the target company itself makes a counteroffer for its own shares. A recent example is Newmont Mining.

Valuation The act or process of assigning a value to something. Generally synonymous with "appraisal."

Vertical merger This occurs when a company combines with a supplier or customer. An example is when a wholesaler combines with retailers.

White Knight The defending company finds a third party who is willing to pay a higher premium, typically with "friendlier" intentions than the raider. Recent examples are Gulf Oil Corp. (Chevron) an Sterling Drugs (Eastman Kodak).