



How to Determine the Value of a Business

After deciding to buy or sell a business, the subject of "how much" becomes important. Determining the value of a business is one of the most difficult aspects of any transaction, since every business is unique.

A common misconception is that valuation is an exact science. While the use of formulas in a valuation implies exactness, it is very difficult to set the worth of a company at a single figure. To establish a fair market value, "hard" figures, such as assets, liabilities, and historical earnings and cash flow are used.

But "soft," or subjective, figures, such as projected earnings, future cash flow, and the value of intangibles (e.g., patents, know-how, the quality of management, and leases at below-market rates) are also used. Soft figures also include such considerations as current market conditions, industry popularity, and, most important, the objectives of the seller or buyer. With all this subjectivity, fair market value can be, at best, only a range of estimates.

A second misconception is that value equals selling price. The final selling price can be either higher or lower than the estimated range of values for the company, depending on the eagerness of the buyer to buy and the seller to sell, the demand for the type of company, the form of consideration paid, the negotiating skills of the parties, etc. In fact, the selling price of a company sometimes does not seem to have much relation to its estimated value.

Ask appraisers the value of your business and they will respond, "What's the purpose of the valuation?"

Valuation methods—and therefore values—vary depending on the reason for the valuation. Different techniques can be used to arrive at different values, and each of the values may be correct for a specific situation.

For purposes of this discussion, we will focus on the valuation techniques used for buying or selling a company as a going concern. Whichever technique is used, the valuation comprises these key elements:

1. Gathering information about the company and the industry,
2. Recasting the historical financial statements,
3. Preparing prospective financial statements,

4. Comparing the company's results with those of other companies in the industry, and,
5. Finally, applying appropriate valuation methodologies.

1. Gathering Information

The selling memorandum, the basis for the buyer's preliminary examination of the company, should contain comprehensive information about the company, its history and operations, and its market position. As a buyer, you will continue gathering all the information you can about the company through such sources as management interviews and conversations with the company's vendors and customers.

You will also want to gather similar information about competitors of similar size. In addition, you may want general information about the industry and the industry's leaders to help you understand market trends, competitive strategies, and the dynamics that cause companies in this particular industry to grow and succeed. Potential sources for industry and competitor information include market studies reports of trade associations and credit rating agencies, and annual reports and stock analysts' reports of publicly owned companies.

2. Recasting Financial Statements

The historical financial statements may need to be adjusted to make them more meaningful or to compare them with those of the company's competitors.

For example, take the financial statements of a closely held or family business whose objective in years past has been to minimize earnings in order to minimize corporate income taxes. To achieve this, the company may have awarded unusually large bonuses to employee-owners, masking the "true" earning power of the company. As the buyer or seller, you would want to recast, or normalize, the financial statements to account for this type of activity.

In valuing a business, some typical **income statement adjustments** may include the following:

- Excessive management salaries.
- Salaries paid to individuals who can be replaced at much lower salaries.
- Retirement and health plans that provide better benefits than the plans of other companies in the industry.
- Excessive perquisites, such as company cars and club memberships.
- Favorable or unfavorable leases.
- Last-in-first-out (LIFO) inventory adjustments.
- Interest rates if the buyer borrows at significantly different rates.
- Adjustment of sales to reflect selling price increases, in cases where prices have not been increased recently and such increases would not have affected sales levels.

- Non-recurring expenses, such as legal expenditures, relocation costs, and casualty losses.
- Accelerated depreciation charges, utilized to reduce taxable income.
- “Window dressing,” or practices that temporarily improve current earnings. For instance, a company might reduce necessary long-term investments, such as research, advertising, or maintenance, improving its current earnings but weakening its potential for future earnings.
- Tax rates. If the company has an unusual tax situation, e.g., available net operating loss (NOL) carry forwards, an adjustment should be made to reflect “normal” taxation.

In valuing a business, some typical **balance sheet adjustments** may include the following:

- LIFO reserves, to adjust the inventory to current cost.
- Undervalued or overvalued marketable securities and investments in unconsolidated subsidiaries.
- Fixed assets that have appreciated in value.
- Intangible assets that may not be recorded on the books.
- Beneficial leases.
- Assumable debt with favorable interest rates or repayment terms.
- Unrecorded pension and other postretirement liabilities.
- Contingent liabilities.

After identifying and quantifying applicable adjustments, you will have a more meaningful set of financial statements to use to make financial projections and to compare the company's performance with that of other companies.

3. Projecting Earnings

Prospective financial information should be prepared for the next three to five years. If you are the seller, you probably have already prepared this information for your own purposes and included portions of it in the selling memorandum. If you are the buyer, however, chances are that you will want to do your own analysis.

Prospective earnings may be estimated in one of three ways:

1. Use an average annual growth rate derived from the past three to five years' income as an estimate of future annual earnings. This method assumes that the earnings trend will remain essentially unchanged and, therefore, that historical earnings are a valid indicator of future performance. The major disadvantage of using average historical growth rates is that past conditions may not remain the same in the future. Because business conditions are constantly changing, you should adjust for known and anticipated changes.

2. Use an estimate of future earnings under the current owners' management, adjusting for inflation and industry trends. This method of defining future earnings assumes that, after the sale, management will continue to operate the company in the same manner as past management and with the same degree of success.
3. Use an estimate of future earnings under the new owners' management, adjusting for inflation and industry trends. This method is probably most useful to the buyer. It analyzes the effect that new management or strategies will have on future earnings. These effects include changes in marketing strategy, manufacturing technology, and management philosophy.

4. Comparing with Other Businesses Within the Industry

Before proceeding to the valuation, the company's results, as restated, should be compared with the results of other companies in the industry and with the industry in general. Some of the comparative analysis should focus on the following figures:

- Sales growth.
- Gross margin.
- Earnings before income taxes, as a percentage of sales.
- Earnings before interest and income taxes, as a percentage of sales (this eliminates the financing bias).
- Earnings before depreciation, interest, and income tax, as a percentage of sales (this eliminates the historical cost bias as well as the financing bias).
- Return on equity.
- Return on assets.
- Current ratio.
- Receivables and inventory turnover rates.
- Debt to net worth ratio
- Interest coverage.

Does the company under-perform or outperform similar companies and the industry averages? What is its growth rate relative to the industries? Is it gaining or losing market share? This analysis will give you some idea of whether the company deserves a premium or discount over the value of comparable companies. Wide fluctuations from the industry averages should be explained because they may indicate errors in the underlying data.

5. Applying a Valuation Method

The valuation method you select will be determined by your objectives for the valuation. As the seller, the objective is fairly clear—to get the most for the company. As the buyer, however, your objective may not be as straightforward.

It is important that you understand what you are buying and why you are buying it. The price you pay for an ongoing business may be quite different from the price you pay for a business that you intend to

cannibalize for certain product lines or markets. For each purchase, a different valuation method may be appropriate.

Three approaches are commonly used in valuing a closely held business. The first approach uses the balance sheet to arrive at the fair value of net assets; the second examines market comparables; and the third analyzes the future income or potential cash flow of the company. Combinations of these approaches may be used as well.

5.1 Balance Sheet Method

Balance sheet methods of valuation are based on the concept that a buyer basically purchases the net assets of the company.

Book Value

Book value is probably the easiest method to apply. Using the company's financial statements, book value is simply calculated by subtracting total liabilities from total assets. The advantage of this method is that the numbers are usually readily available.

However, there are a number of drawbacks to this method. Book value does not reflect the fair market value of assets and liabilities; it expresses historical value only and is significantly affected by the company's accounting practices. It may not record, or may significantly undervalue, intangible assets such as patents and trademarks. Lastly, book value ignores earnings potential.

Despite these drawbacks, book value can be a useful point of reference when considering asset valuation.

Adjusted Book Value

Adjusted book value is simply the book value adjusted for major differences between the stated book value and the fair market value of the company's assets and liabilities. A refinement of book value, adjusted book value more accurately represents the value of a company's assets but still has many of the same drawbacks.

One of the most significant typical balance sheet adjustments is the adjustment of the value of a company's intangible assets. This is also one of the most difficult. What is the value of an ongoing business? If a company has patents, trademarks, copyrights, or a proprietary manufacturing

process, how much are they worth? How much would it cost to develop similar processes, and could legal action result if the developed process were found to be too similar to a competitor's?

What is the value of a company's existing customer base, long-term contracts, or exclusive license agreements? If you started a similar company tomorrow, how many months of losses would you have to incur before sales would reach profitable levels? Such questions make balance sheet methods a less effective measurement of business values for ongoing companies.

Despite these shortcomings, balance sheet methods have an appropriate place. For companies that are dependent on income-producing assets, such as real estate companies, banks, or leasing companies, balance sheet methods may provide the most reasonable valuation.

Liquidation Value

A less used balance sheet method is liquidation value. Liquidation value estimates the cash remaining after the company has sold all its assets and paid off all its liabilities. This method assumes that a bulk sale takes place; therefore, many of the prices you would get for the assets are lower than “fair market value.”

The liquidation may be orderly or forced, depending on the circumstances. In practice, only a business that is in severe financial difficulty or one that must be sold quickly (e.g., the owner has an immediate need for cash or a government order to sell has been issued) can be purchased at liquidation value. However, it is important to know this value during your negotiations. Financial institutions commonly use this method to determine the value of assets used as collateral to secure financing.

In applying any of the balance sheet methods, be alert to unrecorded liabilities that affect net asset value, such as non-cancelable leases (if you intend to move), severance costs (if you are considering layoffs), or unfunded pension liabilities and other retiree benefits.

5.2 Market Comparables

This method determines a company's value by comparing the company with a similar public company or with recently sold similar businesses. While quite common in real estate transactions, this method is difficult to apply to most businesses because of the difficulty of finding comparable businesses or transactions.

When suitable companies can be found, the price-earnings ratio of the comparable company (its stock price divided by its after-tax earnings per share) is typically used to determine value. Thus, if the stock of a comparable business trades in the public market at a price-earnings ratio of 12, the value of the candidate can be assumed to be 12 times its earnings.

Even if comparable companies can be found, this method is difficult to implement. Public companies are often engaged in diversified practices so that the price-earnings ratios may not be

relevant. And since the companies are not identical, you must also consider whether your company should command a premium or discount.

Possible price adjustments include the following:

- A premium for having anticipated earnings growth greater than expected industry norms.
- A discount for the additional risk of not enjoying the same liquidity as publicly traded stock. This adjustment could reduce the value by as much as 30 to 50 percent for lack of marketability.
- A premium for acquiring control. If you want to acquire a controlling interest, you may need to pay a hefty premium to encourage other stockholders to sell their interest. This occurs frequently in both hostile and friendly takeovers. The premium can be quite substantial (40 to 50 percent).
- Small Company discount. If your company is smaller than the average company in your industry, expect the buyer to use a price multiple for your company that is lower than the price multiples applicable to the market leader and other companies in your industry. This adjustment could reduce the value by as much as 30 percent.

Despite these shortcomings, market comparables are very useful as reference points from which to value your company.

5.3 Earnings Methods

Various approaches are used to value future earnings power. Three of the more common approaches are capitalized earnings, discounted future earnings, and discounted cash flow.

Capitalized earnings can be quickly computed and are often used to make preliminary estimates of value. They are calculated based on annual after-tax income. In using this method for valuing a company, you first determine your desired rate of return. The initial investment or value is then computed by dividing the average after-tax earnings by the desired rate of return. The major disadvantage of this method is that it does not consider the time value of money. In addition, it assumes that the most recent earnings are a valid indicator of future performance.

Example: Capitalized Earnings Method of Valuation (Dollar amounts in thousands)

- Assumptions:
 - After-tax income for the most recent year is \$750
 - Desired rate of return on investment 15%
- Calculation of capitalized earnings:
 - Divide income by rate of return $\$750 / .15 = \$5,000$

The discounted future earnings method initially requires an estimate of after-tax income for future years (generally five to ten years), an estimate of value at the end of this future period (“residual value”), and the investor's desired rate of return. Each year's income and the residual value are then discounted (the process of dividing sums to be received in the future by an assumed earnings rate) by the desired rate of return. The sum of these discounted values is the estimated value (present value) of the company.

The inherent advantage of the discounted future earnings approach is that future earnings potential becomes the investment criterion, considering the time value of money. Disadvantages include the fact that, like any estimate, future earnings cannot be projected with certainty. Residual value, which may be affected by industry and economic uncertainties, the buyer's intent, and other factors, is also difficult to project. Finally, it may not be possible to reinvest all earnings because of practical limitations imposed by the business environment and because earnings do not necessarily take the form of cash.

The first two disadvantages can be overcome to some extent by using computing models based on optimistic, pessimistic, and most-likely outcomes for future earnings and residual value. The last disadvantage can be overcome by using the discounted cash flow method. This method is essentially the same as the discounted future earnings method, except that cash flow rather than income is projected for each future year. Many consider this method the best for determining value. In many cases cash flow is a more important consideration than profits, as in the case of a heavily leveraged transaction.

6. Determining the Final Value

The buyer and seller will each conduct their own analysis to estimate the future earnings and cash flows and assess their own risk tolerance in order to estimate the company's value.

For example, the buyer may feel this is a moderately risky opportunity requiring a 15 percent after-tax return to compete with other available investment opportunities. As the perceived risk increases, so does the discount rate, which reduces the current value of the company.

The seller, on the other hand, may determine that his or her next best investment opportunity will yield a maximum after-tax return of 10 percent, and he or she will require a similar discount to sell this business. In valuing the business, the buyer's and seller's results can be significantly different.

The parties should not spend much time arguing about the mechanics of how they arrived at their valuations other than to understand the assumptions and techniques used. Since they each have different views on risk, growth, etc., there is little point in trying to agree on “value.”

Use your value as a guide for developing your negotiating strategy. As the buyer, your value will be the maximum price that makes sense considering the perceived riskiness of the transaction and the funding available to you. As the seller, your value will be the minimum you are willing to accept considering your alternative uses for the funds from the sale.