

Chapter 9: Asset Valuation (Equipment)

Knowing how much the machinery and equipment are worth will determine the amount of goodwill that you are paying for as part of the overall purchase price. Valuing these assets is different from valuing other types of assets, such as real estate and intangibles, because the values can differ depending upon the specific circumstances such as liquidation value, going concern value, and installation costs, among others.

Introduction

This is a critical chapter to review since most people gloss over the “real” value of the machinery and equipment. In most cases, the values are lower than normally represented by business owners. A person may be trying to sell the business since she has not upgraded her equipment.

Machinery and equipment are an important part of an asset intensive business, but are usually less important for high technology businesses, where much of the value lies in intangible assets. Nonetheless, there is more contention as to the actual value of such items. A seller may state that the equipment is worth \$800,000, but the liquidation value may be only \$275,000.

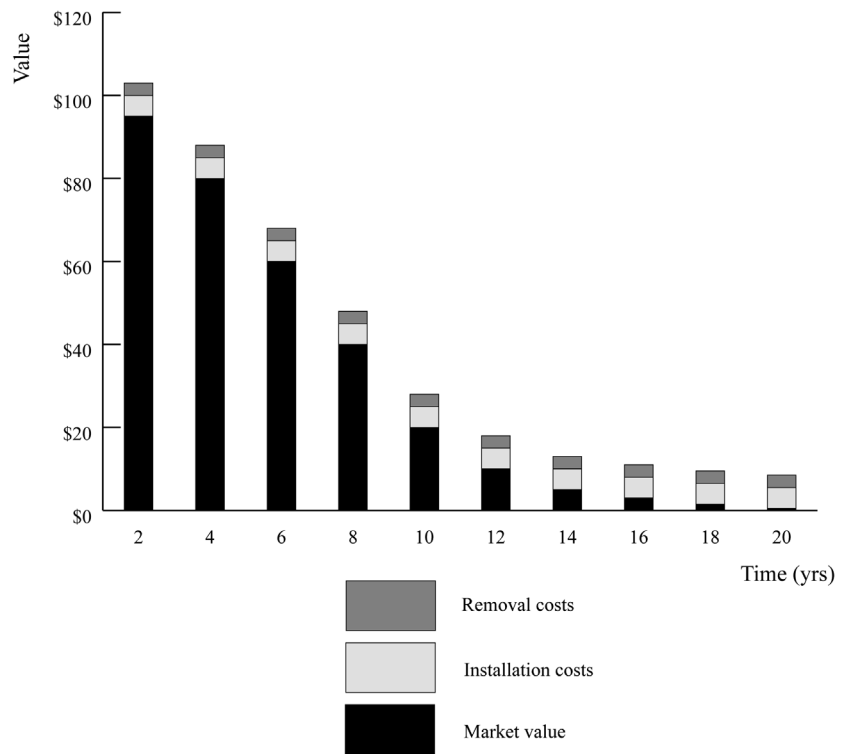
Values can differ depending upon the specific circumstances. Obviously the pieces of an operation will be worth less individually, than if they are part of a “turn key” operation where each piece is an integral part of the overall production line. Similarly, the time until sale is a large factor. The longer that you can wait to sell your equipment, the higher the probability of obtaining a wholesale or even a retail value. The faster you need the money, the higher the discount, and, in turn, the lower the value or cash which you will receive.

Finally, the major difference between machinery and equipment and other tangible assets is the element of installation. For many assets, the installation costs are higher than the machine cost itself. In these situations, the market transactions of used machinery may or may not represent the subject machine’s value to the business enterprise. These differences can be more easily shown through Table 9-1.

When valuing machinery and equipment, it is important to specify *exactly* what value is being used. When valuing real estate, personal property or busi-

nesses, the importance and definition of value to each of these disciplines is different. Real estate values rarely have to explain installation costs, since land is stationary. Personal property is typically valued based upon continued use and rarely uses the cost approach like with machinery and equipment. Also, business valuations grapple with the fair market value of the business which is either a control or minority interest.

Figure 9-1: Installation Costs Relative to Age Life of Equipment



In many cases appraisers use “fair market retail values” for a purchase price allocation of machinery where the owner purchased the equipment at liquidation prices. Obviously if you are starting a business from scratch, then you are going to get the least expensive equipment that is still usable. When valuing a business and potentially purchasing the operation, the buyer must identify the downside of selling the equipment, or more importantly, finance the transaction. Bankers will only lend on a forced or orderly liquidation value, since they assume that they will have to unload the equipment at auction prices.

Special or Volatile Equipment

There are all types of industries that have standard equipment that make up most of their assets. Within some companies, many assets have come to be known as “special.” This reference is not necessarily applied to an unusual type of product, but to a company made up of assets that, historically, are difficult to sell in a piecemeal removal fashion. Special assets are those that have volatility in recovery, which is caused from various factors such as:

- (1) Extremely limited markets
- (2) Specialized or unique use
- (3) Proprietary equipment
- (4) Environment
- (5) Fluctuating markets

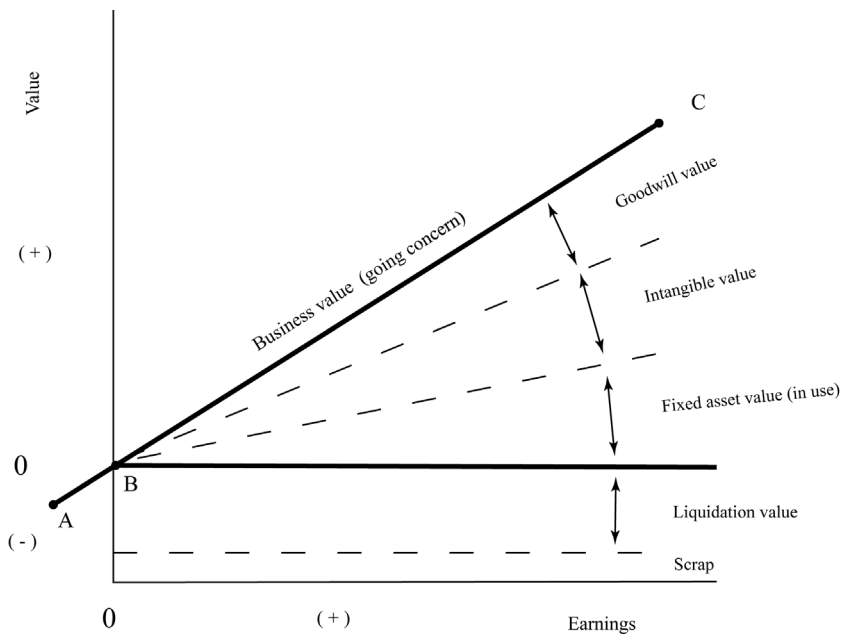
There are some types of equipment that just tend to possess a volatile nature such as computers, telephone systems, paint lines, or proprietary and special use items. These items can cause many debates on value; the value numbers can appear very high or extremely low.

This drastic swing in value makes it difficult to put numbers on “special” types of equipment. Forced sales are not necessarily indicative of what may happen if an orderly liquidation were later to come to pass. Therefore this equipment should be thoroughly researched and all factors should be examined to obtain an accurate appraisal under the guidelines of the American Society of Appraisers’ definitions of value.

Value Definitions

As a result of all of the differences mentioned above, many value definitions are available and the right one is needed to be agreed upon before a value can be given. The American Society of Appraisers has definitions which apply to the valuation of machinery and equipment. These value concepts can best be seen visually in Figure 9-2, and are defined in Table 9-2 on page 202.

Figure 9-2: Valuation Definitions Relative to One Another



Purposes of Valuation Relative to Definitions of Value

One must first know the valuation purpose. This purpose usually goes hand in hand with the use of the valuation. For example, if the purpose of the valuation is for the allocation of a purchase price, or for an ongoing business, then the proper valuation concept would be the “Fair Market Value in Continued Use.” This definition means the value of the assets to the ongoing business. If the valuation is to be used for financing purposes, then the proper value to be used would be “Orderly Liquidation Value,” “Forced Liquidation Value,” “Liquidation Value in Place,” or “Fair Market Removal.”

A quick thumbnail sketch of the different values and purposes can be seen in Table 9-2 on page 202.

Approaches to Valuation

Like real property and business valuation, machinery and equipment are value through the cost, market, and income approaches. Value is almost exclusively derived through the cost and market approaches with the income approach being rarely used.

Cost

The cost approach is based upon the assumption that a purchaser would pay no more for an asset than the cost of creating a substitute with the identical utility of the subject asset being valued. This value usually establishes the upper limit of value. Once the replacement cost is established, the condition needs to be accounted for by applying accrued depreciation. As with real property, the depreciation considered is physical curable, physical incurable, functional & economic depreciation.

Sales

The sales comparison approach relies on the assumption that the value of the businesses’ assets can be obtained based upon transactions of similar items selling in the secondary or used market. This is easy to see in concept but difficult in reality. Usually the comparable prices of equipment need to be adjusted for differences such as age, condition and capacity of the assets, model, location, date and type of sale (retail sale, auction sale, asking prices, etc.). Also, if valuing the business under a continued use, then the value associated with the cost of assembly or installing the assets needs to be adjusted.

Income

The income approach breaks down the earning capacity of the business assets under investigation. This approach is rarely utilized for individual pieces and is more applicable when analyzing a production line or for a plant which produces a set product.

In summary, the strengths and weaknesses of all three approaches to value can be summarized in Table 9-1.

Table 9-1: Strengths Versus Weaknesses of Approaches to Value

Method	Strengths	Weaknesses
Cost	Good for special purpose assets.	Sometimes economic obsolescence can be overstated.
	Good for new assets.	Depreciation estimate is subjective.
	Good for isolation of different items of depreciation.	Effective age is difficult to estimate; if a machine was rebuilt, then this complicates analysis; time consuming
Market	Most reliable indicator for individual items with established markets.	Certain items have no comparable sales, and adjusting is subjective.
	More accurate measure of depreciation.	Sales data is oftentimes questionable and not detailed, and buyer and seller motivation is unknown.
Income	Recognizes income contribution to a business.	Poor method if specific assets need to be segregated.
	Most accurate measurement of total depreciation of all assets.	Rates of return are subjective and need to be combined with the business value.

Table 9-2 on page 202 shows why it is imperative to use the right definition for the valuation of equipment since each value definition will represent a different percentage of the reproduction or replacement cost new.