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# Property, Plant and Equipment

## Part 2

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Your goals for this “property, plant, and equipment” chapter are to learn about:

- Measurement of costs appropriately assigned to property, plant, and equipment.
- Equipment leases and the accounting implications.
- Principles relating to service life and depreciation.
- Depreciation methodology and terminology.
- Straight-line depreciation.
- Units-of-output depreciation.
- Double-declining balance depreciation.
- Sum-of-the-years’-digits depreciation.
- Unique features of depreciation under the tax code.

## 6. What Costs are Included in Property, Plant, and Equipment

Items of property, plant, and equipment are included in a separate category on a classified balance sheet. Property, plant, and equipment typically follows the Long-term Investments section, and is oftentimes simply referred to as “PP&E.” Items appropriately included in this section of the balance sheet are the physical assets deployed in the productive operation of the business, like land, buildings, and equipment. Note that idle facilities or land held for speculation may more appropriately be listed in some other category on the balance sheet (like long-term investments) since these items are not in productive use. Within the PP&E section, the custom is to list PP&E according to expected life -- meaning that land (with an indefinite life) comes first, followed by buildings, then equipment. For some businesses, the amount of PP&E can be substantial. This is the case for firms that have heavy manufacturing operations or significant real estate holdings. Other businesses, say those that are service or intellectual based, may actually have very little to show within this balance sheet category. Below is an example of how a typical PP&E section of the balance sheet might appear. In the alternative, some companies may relegate this level of detailed disclosure into a note accompanying the financial statements, and instead just report a single number for “property, plant, and equipment, net of accumulated depreciation” on the face of the balance sheet.

Property, Plant & Equipment			
Land		\$ 1,000,000	
Buildings	\$ 2,300,000		
Less: Accumulated depreciation	<u>(1,500,000)</u>	800,000	
Equipment	\$ 4,000,000		
Less: Accumulated depreciation	<u>(1,800,000)</u>	<u>2,200,000</u>	\$ 4,000,000

### 6.1 Cost to Assign to Items of Property, Plant, and Equipment

The correct amount of cost to allocate to PP&E is based on a fairly straight-forward rule -- to identify those expenditures which are ordinary and necessary to get the item in place and in condition for its intended use. Such amounts include the purchase price (less any negotiated discounts), permits, freight, ordinary installation, initial setup/calibration/programming, and other normal costs associated with getting the item ready to use. These costs are termed “capital expenditures.” In contrast, other expenditures may arise which were not “ordinary and necessary,” or benefit only the immediate period. These costs should be expensed as incurred. An example is repair of abnormal damage caused during installation of equipment.

To illustrate, assume that Pechlat Corporation purchased a new lathe. The lathe had a list price of \$90,000, but Pechlat negotiated a 10% discount. In addition, Pechlat agreed to pay freight and installation of \$5,000. During installation, the lathe's spindle was bent and had to be replaced for \$2,000. The journal entry to record this transaction is:

3-17-X4	<b>Equipment</b>	86,000	
	<b>Repair Expense</b>	2,000	
	<b>Cash</b>		88,000
	<i>Paid for equipment <math>((\\$90,000 \times .90) + \\$5,000)</math>, and repair cost</i>		

## 6.2 Interest Cost

Amounts paid to finance the purchase of property, plant, and equipment are expensed. An exception is interest incurred on funds borrowed to finance construction of plant and equipment. Such interest related to the period of time during which active construction is ongoing is capitalized. Interest capitalization rules are quite complex, and are typically covered in detail in intermediate accounting courses.

## 6.3 Training Costs

The acquisition of new machinery is oftentimes accompanied by employee training regarding the correct operating procedures for the device. The normal rule is that training costs are expensed. The logic here is that the training attaches to the employee not the machine, and the employee is not owned by the company. On rare occasion, justification for capitalization of very specialized training costs (where the training is company specific and benefits many periods) is made, but this is the exception rather than the rule.

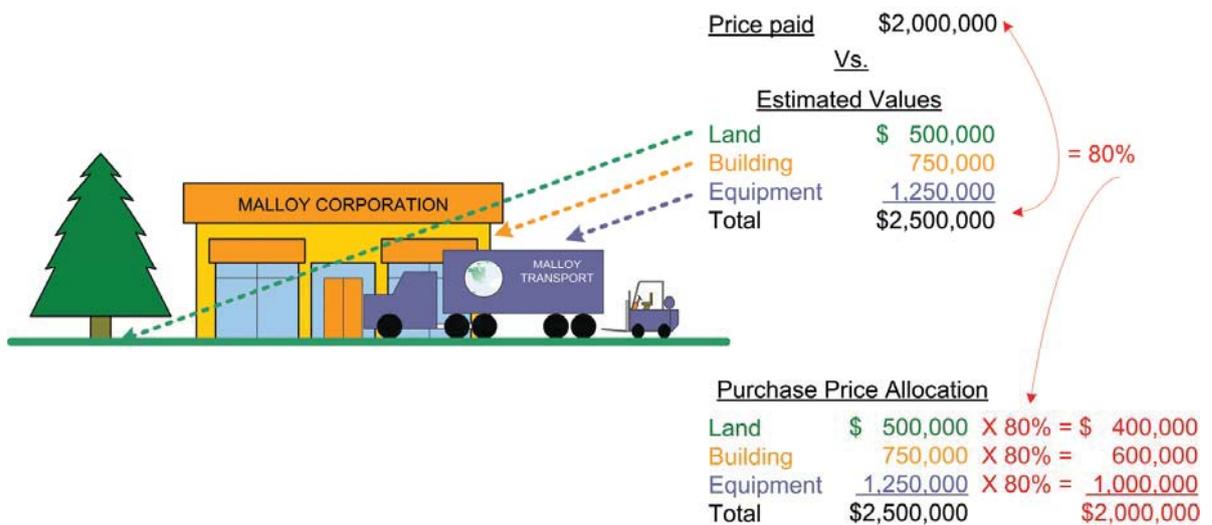
## 6.4 A Distinction Between Land and Land Improvements

When acquiring land, certain costs are again ordinary and necessary and should be assigned to Land. These costs obviously will include the cost of the land, plus title fees, legal fees, survey costs, and zoning fees. But other more exotic costs come into play and should be added to the Land account; the list can grow long. For example, costs to grade and drain land to get it ready for construction can be construed as part of the land cost. Likewise, the cost to raze an old structure from the land may be added to the land account (net of any salvage value that may be extracted from the likes of old bricks or steel, etc.). All of these costs may be considered to be ordinary and necessary costs to get the land ready for its intended use. However, at some point, the costs shift to another category -- "land improvements." Land Improvements is another item of PP&E and includes the cost of parking lots, sidewalks, landscaping, irrigation systems, and similar expenditures. Why do you suppose it is important to separate land and land improvement costs? The answer to this question will become clear when we consider depreciation issues. As you will soon see, land is considered to have an indefinite life and is not depreciated. Alternatively, you know that parking lots, irrigation systems, etc. do wear out and must therefore be depreciated.

### 6.5 Lump-Sum Acquisitions

A company may buy an existing manufacturing facility, complete with land, buildings, and equipment. The negotiated price is usually a “turnkey” deal for all the components. While the lump-sum purchase price for the package of assets is readily determinable, assigning costs to the individual components can become problematic. Yet, for accounting purposes, it is necessary to allocate the total purchase price to the individual assets acquired. This requires a pro-rata allocation of the purchase price to the individual components. This concept is best illustrated with an example:

Suppose Dibitanzl Corporation acquired a manufacturing facility from Malloy Corporation for the grand total of \$2,000,000. To keep it simple, we will assume that the facility consisted of land, building, and equipment. If Dibitanzl had acquired the land separately, it is estimated that its fair value would be \$500,000. The fair value of the building, by itself, is estimated to be \$750,000. Finally, the equipment would cost \$1,250,000 if purchased independent of the “package” deal. The accounting task is to allocate the cost of \$2,000,000 to the three separate pieces. If you sum the perceived values of the components, you will note that it comes to \$2,500,000 (\$500,000 + \$750,000 + \$1,250,000). Yet, the actual purchase price was only 80% of this amount:



The above calculations form the basis for the following entry:

5-12-X7	Land	400,000	
	Building	600,000	
	Equipment	1,000,000	
	Cash		2,000,000
	<i>Purchased land, building, and equipment</i>		

## 6.6 Professional Judgment

To many, accounting seems to be strictly mechanical. As you delve deeper into the subject, you will begin to observe an ever-increasing need for the exercise of judgment. Consider the above entry, which causes the land, building, and equipment to be recorded at the historical cost of \$2,000,000, regardless of the perceived higher fair value. Remember the historical cost principle -- which dictates that (most) assets are to be recorded at their cost. The fact that fair value is perceived to be greater than cost does not justify a departure from the historical cost principle. But, professional judgment was required to estimate the fair value of the components for purposes of making the allocation. Such judgments are oftentimes an inescapable part of the accounting process.

You will observe that different estimates of fair value could have been used, and that would cause a different proportion of the \$2,000,000 to be assigned to each piece, but the total allocation would still come to exactly \$2,000,000. So, why does the allocation really matter? It is actually very important when you consider that the amount assigned to land will not be depreciated, while amounts assigned to building and equipment will be depreciated at different rates. Thus, the future pattern of depreciation expense (and therefore income!) will be altered by this initial allocation. You no doubt have a keen sense that investors pay close attention to income. Thus, you can start to sense how important judgment becomes in the accounting process.

## 6.7 Materiality Considerations

Look around your room and consider how many expenditures were for long-lived assets that were relatively minor in value -- perhaps a trash can, a telephone, a picture on the wall, and so forth. If your room was a business, would you capitalize those expenditures and depreciate them over their useful life? Or, would you decide that the cost of record keeping exceeded the benefit? If so, you might choose to simply expense the cost as incurred (as many businesses do). The reason is "materiality;" no matter which way you account for the cost, it is not apt to bear on anyone's decision-making process about the company. Again, all of this discussion is to highlight the degree to which professional judgment comes into play in the accounting process.