Depreciation

by Sophia

WHAT'S COVERED

This lesson will cover the topic of depreciation.

Our discussion breaks down as follows:

1. Depreciation of Capital Assets

Depreciation is the process of cost allocation to expense of a plant asset over its useful life. In other words, part of the asset's useful life has been used, so we need to allocate that cost to expense to recognize that usage of the asset within our business operations.

We record depreciation because we have these long-term assets--buildings, equipment, etc.--and they are used over multiple periods. Recall that long-term assets are used for more than one year. We are using these assets to generate revenue over multiple periods; therefore, we need to allocate that cost over those multiple usage periods.

Essentially, what we are doing is matching expenses with revenue. We have the cost of the asset being allocated through depreciation, which is the cost allocation to expense, being matched to the benefit of that asset, in terms of generating revenue. Therefore, it helps us to achieve the matching principle.

THINK ABOUT IT

We discussed the depreciation of buildings, equipment, and that type of property, but what about land, which is also considered to be a capital asset? Well, land is not depreciated, because land does not get used up.

You may have a manufacturing plant or an office building on top of land, that both get used, but the land itself does not get used, so it does not get depreciated.

TERM TO KNOW

Depreciation
The process of cost allocation to expense, of a plant asset over its useful life.

2. Accumulated Depreciation

Accumulated depreciation is the total depreciation expense recorded to date in an asset's life. It is tracking the total of depreciation expense for that asset's entire life.

Accumulated depreciation is classified as a **contra asset** account, which means accumulated depreciation is an account with a credit balance that follows the asset account that it offsets on the balance sheet.

As noted in the definition, accumulated depreciation has a natural credit balance. Assets, on the other hand, have a natural debit balance, which is where we get the idea of "contra asset"--accumulated depreciation is a *reduction* of assets.

Another key piece of the definition of contra asset is that it offsets on the balance sheet. This means that each depreciable asset will have its own accumulated depreciation account, because we are tracking the total depreciation expense for that asset's entire life.

TERMS TO KNOW

Accumulated Depreciation

The total depreciation expense recorded to date in an asset's life.

Contra Asset

An account with a credit balance that follows the asset account that it offsets on the balance sheet.

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3. Depreciation Methods

There are several depreciation methods available to use:

- Straight line depreciation, which is depreciating the asset equally over its useful life
- Accelerated depreciation, under which are multiple accelerated depreciation methods:
  - MACRS and ACRS
  - Double declining balance
  - Sum of the year's digits
  - Units of production

Of the depreciation methods, one method is used for reporting and one method is used for taxes. For reporting, as a business, we're allowed to determine which depreciation method to use for financial reporting purposes when preparing financial statements. Some businesses might choose simplicity and go with straight line depreciation, while others may want something that more accurately reflects the usage of their assets. However, for taxes, businesses have to use MACRS, which stands for Modified Accelerated Cost Recovery System, and ACRS, which is Accelerated Cost Recovery System. These are required use for tax purposes.

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4. Residual Value

Residual value is the fair value of an asset at the end of its useful life. Residual value is determined by the owner. It's essentially an estimate by the owner who purchased that asset, of what the fair value is going to be at the end of its useful life.

> ↪ EXAMPLE For example, suppose a company purchased new equipment at a cost of $100,000, and they expect that equipment to last five years. At the end of that five years, they might estimate that it is worth $10,000, which is the amount they could get if they decided to sell it used. That $10,000 would be considered the residual value.

Residual value does impact the depreciation calculation. When we are calculating depreciation, we have to take residual value into consideration. We cannot depreciate an asset beyond its residual value, so not only does it factor into our depreciation calculation, it also sets the amount below which we cannot depreciate an asset.

BIG IDEA

An asset cannot be depreciated beyond its residual value.

SUMMARY

Today we learned all about **depreciation**, which is the process of cost allocation to expense of a plant asset over its useful life. We learned about the idea of **accumulated depreciation**, which refers to the total depreciation expense recorded to date in an asset's life. We also learned about the different **depreciation methods** that can be used, and how one method is used for reporting, and one is used for tax purposes. Lastly, we finished up with a discussion of **residual value** and how it factors into our depreciation calculation. Remember, an asset cannot be depreciated beyond its residual value.

Source: Adapted from Sophia instructor Evan McLaughlin.

TERMS TO KNOW

Accumulated Depreciation
The total depreciation expense recorded to date in an asset's life.

Contra Asset
An account with a credit balance that follows the asset account that it offsets on the balance sheet.

Depreciation
The process of cost allocation to expense, of a plant asset over its useful life.