# **Fundamentals of Fixed Asset Accounting**



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# **Fundamentals of Depreciation**

#### What is a fixed asset?

A fixed asset is durable in nature, has physical substance, and will yield service over a number of years. Examples include equipment, furniture and fixtures and buildings.

# What is depreciation?

Depreciation represents an annual deduction that allows you to recover the cost or other basis of property over the time you use the property. It is an allowance for the wear and tear, age, deterioration, or obsolescence of the property. When you depreciate an asset, you're attempting to match the revenue generated by that asset with the expense associated with acquiring the asset, resulting in a more accurate calculation of net income on your profit and loss statement.

# What property may be depreciated?

Fixed assets used in a trade or business, or income-producing activity may be depreciated as long as the business owns the asset. Some criteria used to determine ownership include legal title, an obligation to pay for the asset, responsibility for maintenance and taxes, and a risk of loss.

# Who is entitled to the depreciation deduction?

Generally, the owner is entitled to the depreciation deduction. To determine ownership, some of the things to consider are who has title and right of possession, how both parties treat the transaction, who is obligated to pay property taxes, who bears the risk of loss, who receives profits from the operation and sale of the property, and whether the contract between the two parties created an obligation on the seller to execute and deliver a deed and a present obligation on the purchaser to make payments.

For leases, if the lessee is required to return property to the lessor in the same condition, then the lessor has none of the benefits and burdens of ownership, nor does the lessor suffer any economic loss, and therefore, the lessee may be entitled to the depreciation deduction.

What if property becomes obsolete during the lease term? In this case, the lessor may sustain a loss due to obsolescence and therefore be entitled to the depreciation deduction.

# What are the 4 "critical elements" of depreciation?

#### 1. Placed In Service Date

Depreciation begins when the asset is placed in service. The placed in service date may be different than the date the property was acquired. The asset is considered placed in service when it is installed, it's operational, and it's ready and available for use. The asset doesn't necessarily have to be "in use" in your business when you begin depreciating. The key is whether or not it's ready and available for use.

#### 2. Depreciable Basis

The depreciable basis is considered the amount that may be claimed as depreciation over the life of the asset. To calculate depreciable basis, sum the acquired value plus sales tax, freight, shipping and installation costs. If straight-line or sum-of-the-years-digits is used to calculate depreciation, reduce the acquired value by the salvage value of the asset. For tax purposes, you may also need to reduce the basis by credits, additional first-year depreciation and the percentage of personal use of the asset.

#### 3. Depreciation Method

The following methods are used to calculate depreciation:

- o Straight-line
- o Declining Balance (switch or no switch), 200%, 175%, 150%, 125%
- Sum of the years' digits
- o Remaining value over remaining life
- o Production or Use methods (aka Units of Production)

Averaging conventions are used to calculate the depreciation in the first and final year of the asset's life. The following is a list of some of the various types of averaging conventions that may be used:

- o Daily calculate depreciation based upon the actual day the asset is placed in service
- Mid-month calculate a half month of depreciation regardless of when in the month the asset is placed in service
- Modified mid-month calculate a full month of depreciation if placed in service in the first
   15 days, or none if placed in service in last 15 days of the month
- Full month calculate a full month regardless of when in the month asset is placed in service
- Next month calculate no depreciation in the month placed in service
- Midquarter calculate depreciation as if the asset were placed in service at the midpoint of the quarter
- Half-year calculate a half year of depreciation regardless of when the asset was placed in service

#### 4. Estimated Useful Life

For tax purposes the estimated useful life is prescribed by the IRS in Revenue Ruling 87-57. For financial statement purposes, the estimated life used must be reasonable and consistent.

# **Depreciation for Financial Reporting**

# **Financial Reporting Periods**

Most businesses divide their year up into month-based periods and report on the results of operations for each month during that year.

Some businesses may find it more advantageous to break the year up into week-based periods. For example, a retail or restaurant business may find that by adopting a week-based accounting cycle, they are better able to compare current results of operations with prior results because a high percentage of their income falls on a certain day or two of the week [e.g. Saturday and Sunday].

If the interim periods are week-based, the year may be divided up into 4 quarters, consisting of the following number of weeks in each period within the quarter:

- 4-4-5 (4 weeks in the first and second period and 5 weeks in the third period)
- o 4-5-4 (4 weeks in the first and third period and 5 weeks in the second period)
- o 5-4-4 (5 weeks in the first period and 4 weeks in the second and third period)

Alternatively, the year may also be divided into 13, 4-week periods.

# **Calculating Depreciation**

Depreciation is calculated for financial reporting purposes using straight-line, declining balance, sum of the years digits or units of production. The following illustrates how to calculate depreciation under each of these methods.

#### Straight-Line

(Acquisition Cost – Salvage Value) / Life in Years

Example: Cost = 15,000 Salvage Value = 1,000 Life = 7 years

To calculate depreciation: (15,000 - 1,000) / 7 = 2,000

#### **Declining Balance**

((Depreciable Basis – Accumulated Depreciation) / Life in Years) \* Rate

- Rate = 2 (200%), 1.75 (175%), 1.5 (150%), 1.25 (125%) or 1 (100%)
- Don't depreciate below salvage value
- For this method the depreciable basis changes each year based on the prior year's depreciation deduction

#### Example:

Acquisition Cost = 15,000 Salvage Value = 1,000 Life = 10 years Rate = 200%

Year 1 = (15,000 / 10) \* 2 = 3,000Year 2 = ((15,000 - 3,000) / 10) \* 2 = 2,400Etc.

When using declining balance, you have an option to either switch to straight-line when it yields a higher amount, or not switch at all. If you don't switch to straight-line, due to the nature of the calculation you'll either end up depreciating a smaller and smaller amount every year (and this can go on indefinitely), or you might elect to stop depreciating the asset at the end of its life in which case, the asset will not fully depreciate. And so it's important to consider when choosing the declining balance method, whether or not you choose to switch to the straight-line method in the year it yields a higher amount. If you decide to use the declining balance method and switch to straight-line in the year it yields a higher amount, you will be able to fully depreciate the asset.

Example: Declining Balance – Switch to SL Acquisition Cost = 15,000 Salvage Value = 1,000 Life = 3 years Rate = 200%

#### Depreciation Expense:

Year 1 = 10,000

Year 2 = 4,000 (calculated 4,667, but cannot go below salvage value)

Year 3 = 0

	DB	SL
Year 1	15,000/3 * 2 = 10,000	15,000 -1,000/3 = 4,667
Year 2	(15,000 – 10,000) / 3 * 2 = 3,333	15,000 -1,000/3 = 4,667 <b>Year of Switch</b>
Year 3	n/a	

#### Sum of the years digits

(Acquisition Cost – Salvage Value) \* (Remaining Life / Sum of the Years Digits)

#### Example:

Cost = 500

Salvage value = 50

Life = 5 years

```
Year 1: (500 - 50) * (5 / (1 + 2 + 3 + 4 + 5)) = 150

Year 2: (500 - 50) * (4 / (1 + 2 + 3 + 4 + 5)) = 120

Year 3: (500 - 50) * (3 / (1 + 2 + 3 + 4 + 5)) = 90

Year 4: (500 - 50) * (2 / (1 + 2 + 3 + 4 + 5)) = 60

Year 5: (500 - 50) * (1 / (1 + 2 + 3 + 4 + 5)) = 30
```

#### **Units of Production**

((Acquisition Cost – Salvage Value) \* Units Produced in Period) / Total Estimated Units to be Produced During the Asset's Life

OR

((Acquisition Cost – Salvage Value) \* Hours Used in Period) / Total Estimated Hours in the Asset's Life

#### Example:

Acquisition Cost = 60,000Salvage Value = 6,000Total estimated units to be produced over lifetime = 10,000Year 1 = produces 1,000((60,000 - 6,000) \* 1,000) / 10,000 = 5,400

#### **Net Book Value**

The "Net Book Value" (NBV) is calculated as follows:

NBV = Acquisition Cost less Accumulated Depreciation

Net book value is also referred to as the "net value" or "carrying value" of your fixed assets.

# **Changing Depreciation Critical Elements**

You may have a valid reason at some point within an asset's life to change one or more of the depreciation critical elements (placed in service date, depreciable basis, depreciation method, estimated useful life). Below are examples of when this might occur:

- Incorrect information you may have used incorrect information when setting the asset up for depreciation (this could include an incorrect placed in service date, an incorrect acquired value, etc)
- Rebate you may have capitalized an asset and began depreciating it, and then at some point in the future received a rebate on that asset
- Obsolescence at some point in the asset's life before it is fully depreciated it may become obsolete
- Impairments at some point in the asset's life before it is fully depreciated it may become impaired
- Wears out faster at some point in the asset's life before it is fully depreciated you may realize that the asset is wearing out faster than you expected

If you need to change one of the depreciation critical elements on an asset that you've begun depreciating, follow the guidelines under SFAS 154 – Accounting Changes and Error Corrections.

Here are 2 examples for how to make changes under SFAS 154:

#### Example 1:

Asset with an acquisition cost of \$50,000 is placed in service on 1/1/2005 The depreciation method = SL, and the useful life = 5 years In the 3rd year, useful life is change to 10

```
Year 1 = 50,000 / 5 = 10,000

Year 2 = 50,000 / 5 = 10,000

Year 3 = (50,000 - 20,000) / 8 = 3,750

Year 4 = (50,000 - 20,000) / 8 = 3,750

...

Year 10 = (50,000 - 20,000) / 8 = 3,750
```

#### Example 2:

Asset with an acquisition cost of \$500,000 is placed in service on 1/1/2003 The depreciation method = SL, and the useful life = 5 years In the 3rd year, method is changed to the Sum of the Years Digits

```
Year 1 = 500,000 / 5 = 100,000

Year 2 = 500,000 / 5 = 100,000

Year 3 = (500,000 - 200,000) * 3/6 = 150,000

Year 4 = (500,000 - 200,000) * 2/6 = 100,000

Year 5 = (500,000 - 200,000) * 1/6 = 50,000
```

#### **Additional Expenditures**

You may incur additional expenditures relating to one of your fixed assets, arising from maintenance costs or perhaps changing the use of the asset. These expenditures may be expensed or capitalized depending upon the nature of the expense and other surrounding circumstances.

If the expenditure is considered a "revenue expenditure", it is expensed. If it is considered a "capital expenditure" it is capitalized and depreciated.

Criteria used to determine if the expense should be capitalized may involve whether or not a repair is extraordinary in nature, extends the life of the asset, increases the capability of the asset, or increases the efficiency of the asset.

### **Capitalization Policies**

Most companies have capitalization policies in place to define which assets are to be depreciated and how. It's a good idea to have a capitalization policy, as it helps to achieve consistency in how the assets are depreciated, dictating methods and lives for the various types of assets.

These policies usually include a "threshold amount" whereby asset purchases over the threshold are capitalized, and those below the threshold are expensed. Some policies may have different threshold amounts listed for specific types of assets.

For those assets below the capitalization threshold, even though they are expensed it's still important to track them for purposes of property tax, insurance and theft.

# Sarbanes-Oxley

Why was the Sarbanes-Oxley Act of 2002 enacted? It was a reaction to:

- WorldCom the largest accounting fraud in US History, to the tune of \$11 billion.
- Enron the nation's 7<sup>th</sup> largest company filed for bankruptcy which ended up being the largest bankruptcy in US history, resulting in thousands of employees losing their life savings
- Arthur Anderson found guilty of obstruction of justice for shredding Enron documents (although a few years later the Supreme Court overturned the conviction, but not before virtually all of the clients had left the firm).

Section 404 of the Sarbanes Oxley Act requires management to report on the company's internal controls, and auditors to attest to it. Management must assess the effectiveness of the company's internal controls over financial reporting, and external auditors must attest to the accuracy of management's assessment.

What impact does the Sarbanes-Oxley Act have on fixed asset accounting?

- Accounting System Adequacy to achieve adequate internal controls, access to data must be restricted, data must be safeguarded (backups stored in a fireproof location), and the system must provide sufficient audit trails.
- Physical Safeguard controls must be put into place to prevent unauthorized movement of fixed assets.
- Fair Presentation in Financial Statements assets must be properly capitalized and depreciated in accordance with generally accepted accounting principles to ensure they are fairly presented in the financial statements.

# **Depreciation for Income Tax Reporting**

#### MACRS - GDS and ADS

For tax reporting purposes, the way in which an asset is depreciated is prescribed by the tax laws in effect when the asset is placed into service. Under current tax law, taxpayers must depreciate their assets using MACRS (Modified Accelerated Cost Recovery System). There are 2 depreciation systems under MACRS – the General Depreciation System (GDS) and the Alternative Depreciation System (ADS). Under GDS, depreciation is accelerated, whereas under ADS, depreciation is slower.

For a given tax year, the taxpayer may decide which system of depreciation to use for purchases in that year (GDS or ADS). In some cases, this must be done on a "class by class" basis, i.e., if the taxpayer decides to use GDS for certain asset purchases in that year, GDS must be used for all assets purchased during the year that fall within the same asset class.

#### MACRS Averaging Conventions

The following MACRS averaging conventions are prescribed by tax law:

- Midmonth calculate a half month of depreciation regardless of when in the month the asset is placed in service
- Half-year calculate a half year of depreciation regardless of when the asset was placed in service
- Mid-quarter this averaging convention applies if more than 40% of the cost of property is placed in service during the last 3 months of the year. Under this averaging convention, calculate depreciation as if the assets were placed in service at the midpoint of the quarter.

#### MACRS Depreciation Methods

The following MACRS methods are prescribed by tax law depending on the type of property being placed in service:

#### GDS:

200% declining balance - switch to SL 150% declining balance - switch to SL Straight-line

#### GDS Elections:

150% DB (electing out of using 200% DB)
Straight-line (electing out of using 200% or 150% DB)

#### ADS:

Under ADS, taxpayers may elect to use the straight-line method of depreciation over the ADS life. The ADS life is generally longer than the GDS life. Refer to the ADR Class life table for the GDS life, ADS life and Class life.

The ADS applies to any class of assets, however note that for nonresidential real or residential rental, the ADS election can be made on a property by property basis.

#### First Year Deductions

Congress loves to tinker with the tax code, and as a result, there have been many different types of first-year depreciation deductions intended to encourage spending and stimulate the economy. The first-year deductions currently in effect are:

- Section 179 allows a taxpayer to immediately write off purchases of qualifying property up to a limit.
- Section 179B allows a deduction for capital costs incurred in complying with EPA sulfur regulations
- Section 179C provides for an election to expense certain refineries
- o Section 179D provides for a deduction for energy efficient commercial buildings
- o Section 179E provides for an election to expense advanced mine safety equipment
- 50% Additional First-Year Depreciation allows a 50% immediate deduction for qualifying property

# **Listed Property**

Listed property is defined as property that lends itself to personal use. Some examples include passenger automobiles or other property used as a means of transportation, property used for purposes of entertainment, recreation, or amusement, computers or peripheral equipment, and cell phones.

Listed property must be reported separately on the tax Form 4562.

#### **Auto Limitations**

Passenger automobiles are subject to depreciation limits, and these limits are indexed for inflation every year. As an example, the limits in effect for automobiles placed in service in 2008 are as follows:

Year 1: \$2,960 Year 2: \$4,800 Year 3: \$2.850

Year 4 and later: \$1,775

# **Light Trucks and Vans Limitations**

Light trucks and vans are also subject to depreciation limits, although they are different than the limits for automobiles. Light trucks and vans are defined as a vehicle with a loaded gross vehicle weight rating of 6,000 pounds or less. The limits in effect for lights trucks and vans placed in service in 2008 are as follows:

Year 1: \$3,160 Year 2: \$5,100 Year 3: \$3.050

Year 4 and later: \$1,875

#### SUV's

An SUV is defined as a vehicle with a gross vehicle weight rating of more than 6,000 pounds and build on a truck chassis. SUV's are not subject to annual depreciation limits, however the Section 179 deduction is limited to \$25,000.