

Depreciation

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Definition

Depreciation, amortization, depletion

1. Depreciation is, in accounting, an expense that is recorded to allocate a tangible asset's¹ cost over its useful life. Depreciation is a non-cash expense; therefore it increases free cash flow while decreasing reported earnings.

2. Depreciation can also be a decrease in the value of a particular currency relative to other currencies.

For intangible assets - such as brands and intellectual property² - the process of allocating costs over time is called amortization. For natural resources - such as minerals, timber and oil reserves - the prorating of the cost is called depletion.

Depreciation for tangible assets

Depreciation prorates a tangible asset's costs over that asset's (usually) useful life in order to try and match the income that the asset helps the company earn. When a company prepares its financial statements, it records a depreciation expense to allocate a portion of the cost of the buildings, machines or equipment it has purchased to the current fiscal year.

For example,

If a company buys a piece of equipment for \$1 million and expects it to have a useful life of 10 years, it will be depreciated over 10 years. A portion of the cost is being expensed each accounting year. Every accounting year, the company will expense \$100,000 (assuming straight-line depreciation).

Assumptions

Critical assumptions about expensing depreciation are left to the company's management. Accounting standards bodies have

¹ To be eligible for depreciation, an asset must meet two criteria: it must have a useful life beyond the taxable year, otherwise it would not been capitalized; and the asset is presumed to wear out, decay, decline in value due to natural causes, or is subject to exhaustion or obsolescence.

² Due to the new standard in accounting, IFRS (International Financial Reporting Standards), good will will not be depreciated.

detailed rules on which methods of depreciation are acceptable and preferable. But in the end, it is the management that makes the following decisions:

- Method and rate of depreciation
- Useful life of the asset³
- Scrap value of the asset

EBITDA

EBITDA is a common way to evaluate a company's profitability. EBITDA removes the arbitrary and subjective judgments that can go into calculating depreciation and amortization, such as lifespan, residual values and various depreciation methods.

$$\text{EBITDA} = \text{Operating Revenue} - \text{Operating Expenses} + \text{Other Revenue}$$

The usual shortcut to calculate EBITDA is to start with the operating profit, (EBIT), and then add back depreciation and amortization.

Calculating depreciation

The straight-line method and accelerated methods are the two most common methods.

Accumulated depreciation

Accumulated depreciation is the cumulative depreciation of an asset up to a single point in its life span. Regardless of the method used to calculate it, the depreciation of an asset during a single period is added to the previous period's accumulated depreciation to get the current accumulated depreciation. The asset is depreciated until the book value equals scrap value regardless of the method used.

$$\text{Book Value} = \text{Original Cost} - \text{Accumulated Depreciation}$$

An asset's carrying value on the balance sheet is the difference between its purchase price and accumulated depreciation.

Straight-line method

Straight-line⁴ depreciation is the simplest technique, in which the company estimates the salvage value⁵ of the asset at the end

³ For US legislation see MACRS

⁴ Straight-line = "linjär" [Swedish "linear"] is the most common method for real estate companies in Sweden.

⁵ or scrap value

of the period during which it will be used to generate revenue. The company will expense a portion of original cost less the salvage value in equal increments over that period. The salvage value is an estimate of the value of the asset at the time it will be sold or disposed of.

$$\text{Straight line depreciation} = \frac{(\text{original costs of asset} - \text{salvage value})}{\text{life span.}}$$

Accelerated depreciation

Accelerated depreciation is any method of depreciation used for accounting or income tax purposes that allow greater deductions during the earlier years of the life span of an asset. This may be a more realistic reflection of an asset's actual expected benefits.

For example, if an asset that costs \$1,000 is depreciated at 25% each year, the deduction is \$250.00 in the first year and \$187.50 in the second year, and so forth.

Declining-Balance Method

One popular accelerated method is the declining-balance method. The book value is multiplied by a fixed rate.

$$\text{Annual Depreciation} = \text{Depreciation Rate} * \text{Book Value at Beginning of the Year}$$

The salvage value is not considered in determining the annual depreciation. Declining-balance depreciation doesn't always depreciate an asset fully by the end of its life span, therefore some methods also compute a straight-line depreciation each year, and apply the greater of the two.

Depreciation and real estate companies

IAS 40 for investment property

IAS⁶ provides two different valuation alternatives: fair value IAS 40 and cost model IAS 16 with component depreciation. Properties used in the business operations are subject to IAS 16 and component depreciation.

Component depreciation

This is an effort to depreciate a property based on the life spans of individual assets within it. A building can have electrical

⁶ International Accounting Standards

components and plumbing components that may be assigned a 30-year life span; a roof with a 40-year life span; and a foundation with a 50-year life span. Each component is depreciated in the accounting.

Recommendations

Due to the new accounting standard, IFRS and the European Public Real Estate Associations, EPRAs and ISABs recommendations for listed real estate companies in Sweden, buildings will also no longer be depreciated in the consolidated statement. Buildings will be valued in the balance sheet according to its fair value⁷. With IFRS, unrealized value changes in the property holding are reported in the income statement. This means that the consolidated result for real estate companies can become significantly more volatile.

In Sweden it is not allowed to use the fair value method for the individual companies in the group. IFRS only applies to group accounting.

Fair Value Model	Cost Model
- Initial measure at cost	- Initial measure at cost
- Measure at fair value every reporting period	- Depreciate
- Recognize fair value in profit & loss	- Fair values of investment properties must be reported in the notes
- No depreciation or impairment losses	- Impairment losses apply

Tax purposes

If an asset was to be sold and the sales price exceeded the depreciated value (net book value) then the excess would be considered a gain and subject to the depreciation recapture rule. This gain above the depreciated value would usually be recognized as ordinary income by the tax office. If the sale price is less than the book value, the resulting capital loss is tax deductible. If the sale price were more than the original book value, then the gain above the original book value is recognized as a capital gain.

Historically, there has generally been no strict exigency upon the same model of depreciation for accounting and tax purposes. There is no extra depreciation deduction allowed for inventories

⁷ Fair value = "verkligt värde" [Swedish "true worth"] is often used as a synonym for market value [Swedish "marknadsvärde"]

in Sweden. There is a strict convergence for intangible assets but not for buildings. Buildings can be depreciated 2 percent each accounting year although a general standard for the lifetime of a building is 100 years⁸.

Land is not depreciable. Improvements to land are usually depreciable, including landscaping.

According to Swedish tax law there is no need to activate deferred tax when a property is sold within a group. There is also no need to activate deferred tax on a property when a company is sold with properties. This means that properties in Sweden are now commonly sold within companies, although many times very small companies. *Bostadsrättsföreningar* [Swedish "tenant-owner's associations"] can resolve the tax issue with no further cost due to different tax legislation.⁹

The MACRS

The **Modified Accelerated Cost Recovery System** (MACRS) is the current method of accelerated asset depreciation required by the United States tax code. Under MACRS, all assets are divided into classes which dictate the number of years during which an asset's cost will be recovered¹⁰.

Akelius

When Akelius spends money for a service or anything else that is short-lived, this expenditure is usually tax deductible immediately.

In Sweden, Akelius Fastigheter uses a straight-line depreciation method in the individual companies.

- Residential estates 0.75 %
- Non-residential estates 1.5 %
- *Markanläggningar* 5 %
- Building inventories 20 %

The cost of fixed assets is the total amount that has been invested with the purchase of that particular asset. External costs and expenses such as broker and consulting fees, legal fees and taxes are all part of the cost of fixed assets.

⁸ The maximum allowable useful life span under US income tax regulations is 40 years.

¹⁰ <http://en.wikipedia.org/wiki/MACRS> 2008-09-23

Valuation according to the IFRS and fair value is used for the consolidated statement.

Nordlund, Bo, Fastighetsnytt 3, 2007