

The background features three blue circles of varying sizes and two thin blue lines. One large circle is at the top right, a medium one is in the center, and a very large one is at the bottom right. Two lines cross the page diagonally, one from the top left to the center, and another from the top right to the bottom right.

Depreciation and Reserve

By sonam bais
Prof. Commerce Dptt, Durga college , Raipur

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The word 'depreciation' is used to refer to the decline in the value of an asset due to wear and tear caused by the constant use of the asset.

Depreciation is the gradual deterioration in the value due to use. It is the regular decrease in the value of the asset.

According to **R. G. Williams**: "Depreciation may be defined as a gradual deterioration in value due to use."

According to **Spicer & Pegler**: "Depreciation may be defined as the measure of exhaustion of the effective life of an asset from any cause during a given period."

Characteristics of Depreciation

- Depreciation relates to fixed assets only.
- It denotes shunkage in the value of an asset.
- This shunkage is permanent.
- It is a gradual process.

Need of Provision for Depreciation

Or

Objects of Depreciation

There are certain objects for providing depreciation on assets, which are briefly discussed in following points:

- To ascertain the true cost of production
- To Ascertain the correct Profit or Loss
- Maintaining integrity of Capital and replacement of assets
- To Present a True and Fair View
- Legal Compliance (AS-10) (sec 205 companies ACT)

Some Accountants may argue that the depreciation should not be charged if conditions of the machinery and other assets are satisfactory and very good or some excess depreciation has been charged in the past. But these arguments against charging depreciation have no relevance for the simple reason that the genuine amount of depreciation is expected to be charged every year. If there is some over-charge the adjustment or rectification entries can be passed.

The above discussion makes it clear that proper depreciation has to be charged in order to arrive at true profits, to keep the capital intact, to show the correct financial position and also to meet the legal

requirements regarding depreciation as laid down in Section 205 of the Companies Act.

Causes of Depreciation

(1) Wear and tear: The value of assets decrease due to its constant use. The more the machinery is in use more will be the wear and tear. The wear and tear of a machinery in use for three shifts will be much more than the machinery being used in a single shift.

(2) Exhaustion: Certain assets lose their value with lapse of time as they are being used or consumed or something is taken out of them e.g. mines. The minerals in mines will be exhausted by constant extraction so also will be the case with plantations.

(3) Effluxion of time: The lapse of time also effects the value of an asset. The value of some of the assets is directly linked with lapse of time e.g., patents, leasehold property etc. A patent becomes useless after the expiry of the period of patent.

(4) Obsolescence: New innovations and technologies also bring a fall in the value of assets. The outdated technology becomes cheaper. The loss in the value of assets on account of innovations and newer technology is called obsolescence.

(5) Weather etc.: Certain assets lose their value due to rain or change in weather. While determining depreciation, even these factors need to be taken into account.

(6) Permanent fall in the value of an asset: Many times the value of an asset declines permanently, which ought to be considered while determining the quantum of depreciation. However, a temporary decline cannot be treated as depreciation.

Methods of Depreciation

Fixed assets differ from each other in their nature to a large extent that one method of providing for depreciation cannot be applied to each case. Following are some of the principal methods of providing for depreciation:

- **Fixed Percentage on Original Cost or Fixed Instalment or Straight Line Method:** According to this method, a fixed amount or percentage is charged on the original cost of an asset year after year till the asset is reduced to zero or its break-up value. The percentage to be charged is arrived at after taking into consideration the following points:

(a) original cost of the asset,

(b) its estimated life and

(c) its scrap value,

This method is suitable to provide depreciation for those assets, the working life of which can be easily estimated and do not need heavy repairs and renewals e.g., a lease, a patent etc. This method is very simple to implement and easy to understand. For example, if the cost, salvage and estimated life of a fixed asset are Rs. 10,500, Rs. 500 and 20 years respectively, the annual depreciation would be:

Annual Depreciation = $\frac{\text{Cost of the Assets} - \text{Scrap Value}}{\text{Estimated Life of the Asset}}$

= Rs. 10,500 / 20 = Rs. 500

The calculations will undergo a change when addition or disposal of assets take place.

- **Diminishing Balance Method:** It is also known as 'Diminishing Value Method' or 'Written Down Value Method' or 'Decline Balance Method'. Under it a fixed percentage is written off every year on the reduced balance of the asset. The percentage of depreciation is not applied to the original cost but only to the balance which remains after charging depreciation in the beginning of a year. It remains fixed for all the years of the working life of an asset. However, the actual amount of depreciation written off every year goes on decreasing with reduction in the value of asset, till this value is brought down to its scrap value.

In the case of assets which have fairly long life and which require plenty of repairs, e.g., plant and machinery; it is a useful method. However, it is not of much use for assets having short life for which depreciation has to be charged at a uniform rate.

- **Annuity Method:**

This method is based on the assumption that the money spent in the purchase of the asset is an investment which should yield interests. Therefore, interest at a certain fixed rate is charged (debited) on the diminishing balance of an asset account and credited to the Profit and Loss Account every year.

The amount to be written off as depreciation is calculated from Annuity Tables. Normally, a certain fixed amount of depreciation is charged every year for the estimated life of the asset which will be reduced to nil or its residual value by that year. In this method, the annual charge for depreciation or the amount written off as depreciation remains constant, while, interest taken credit for will become less year to year. The method is suitable for those assets which have a long life and need a heavy investment. However, this method is not suitable where additions to the asset are made during the course of the year, as in those cases calculations are difficult to make.

- **The Depreciation Fund or Sinking Fund Method:** This method is also called Redemption Fund Method, Amortisation Fund Method. Under this method a fixed amount as depreciation is debited to the Profit and Loss Account each year, and credited to a Depreciation Fund Account. Simultaneously, the same amount is invested outside the business. The amount of annual depreciation is calculated with the help of Sinking Fund

Tables. The instalment is computed keeping in view the estimated life of the asset and the rate of interest on investment. The investments are expected to produce the amount required for the replacement of the asset.

The asset account appears in the Balance Sheet at its original cost. The amount of depreciation is shown on the liabilities side as the "Depreciation Fund." After the specified period the Depreciation Fund Account becomes equal to the Asset Account and then the Asset Account is written off by transferring it to the Depreciation Fund Account. Investment made for the purpose are then sold, and with the help of this money, new asset is purchased without drawing any money from the business.

The advantage of this method is that when the asset has to be replaced funds are made available by the disposal of the securities.

- **Insurance Policy Method:** Under this method, the amount of depreciation, instead of being invested in gilt-edged securities, is paid to an insurance company as premium every year. An endowment insurance policy is taken on the estimated life of an asset. At the end of the given period, the insurance company will pay the agreed sum with which the new asset will be purchased. The advantage of this method is that it is easy, simple and free from all possible risks and botheration as it involves regular payment of the premium as per the terms of the

agreement with the insurance company. The policy amount is collected on maturity from the insurance company.

- **Revaluation Method:** This method is used only in the case of those assets, the working life of which cannot easily be ascertained like loose tools and livestock etc. Under this method, the amount of depreciation on these assets to be written off every year is determined by comparing the book value of these assets at the end of the year with their value in the beginning of the year. The appreciation in the value of such assets is never taken into account. The revaluation of these assets should be done by a competent technical person.
- **Depletion Method:** This method is specially applied in the case of wasting assets such as mines, quarries and sandpits etc. The potential of the mines is estimated in terms of tons and their cost is estimated. The depreciation in any year is calculated per ton of output of the year. For example, if a mine is purchased for Rs. 40,000 and it is estimated that the total quantity of minerals in the mine is 80,000 tons, the depreciation per ton of output comes to 0.50 per ton. If the output in the first year is 20,000 tons, the depreciation in the first year will be $20,000 \times 0.50$ Rs. 10,000. At times, a minimum annual charge is adopted where the extraction or production has not reached the minimum.

- **Machine Hour Rate Method:** Under this method, the life of a machine is estimated in terms of its working hours instead of years. The total number of hours in which a particular machine will work effectively is estimated. The estimated number of hours is then divided by the cost of the machinery less residual value, if any, to ascertain the hourly rate of depreciation. For example, if the cost of the machine is Rs. 1,00,000 and the effective life of the machine is 20,000 hours, then the hourly depreciation will be $1,00,000/20,000$ -Rs. 5 (it is known as hourly rate of depreciation). If the machine in any year works or runs for 2,000 hours then the depreciation for that year will be $2,000 \times 5$ or Rs. 10,000. This method is very suitable for those assets, the use of which can be measured in terms of hours.
- **The Use or Mileage Method:** This method is very suitable for those assets, the use of which can be measured in terms of miles or kilometres i.e., cars, trucks and buses etc. It is exactly like the machine hour rate method. In this case, depreciation is calculated on the basis of the number of kilometres run by a particular vehicle multiplied by per kilometre rate of depreciation.
- **Global Method:** Under this method, all the assets irrespective of their nature and effective working life are grouped together and their depreciation is charged at a flat rate. It is an unscientific method as it does not distinguish between one type of fixed asset and another. Moreover, according to the Companies Act,

under each head of the fixed asset, the original cost, the additions thereto, any deductions and total depreciation written off to-date have to be disclosed, which cannot be done in this system. This method of charging depreciation is not allowed under the Companies Act.

The difference between provision and reserve is that

- Provision is a specific amount that is set aside to cover a **future expected loss or liability**.
- Reserve is a surplus amount that is retained to invest in **future projects or to strengthen the financial position** of a business
- Provision is compulsory for companies to make, while reserve is optional.

Thank you!