Chapter 4: Accounting for Depreciation

The Concept of Depreciation



4.1 The Concept of Depreciation

Depreciable assets are **physical objects that retain their size and shape but that eventually wear out or become obsolete**. They are not physically consumed, as are assets such as supplies, but nonetheless **their economic usefulness diminishes over time**. Examples of depreciable assets include buildings and all types of equipment, fixtures, furnishings and even railroad tracks. Land however is not viewed as a depreciable asset; it has an unlimited useful life.

Each period, a portion of a depreciable asset's usefulness expires. Therefore, a corresponding portion of its cost is recognized depreciation expense.

What is Depreciation?



4.2 What Is Depreciation?

In accounting the depreciation means the systematic allocation of the cost of a depreciable asset to expense over the asset's useful life. This process is illustrated in Table 4.1:

		BALANCE SHEE	T		
Cost of a	>	Assets			
depreciable		Building			
asset		Equipment, etc.			¥
				As the asset's	
				usefu	ul life expires
		BALANCE SHEET	Γ		
		Revenues			
		Expenses	•		
		Depreciation			

Table 4.1: Depreciation

Depreciation **is not an attempt to record changes in the asset's market value.** In the short run, the market value of some depreciable assets may even increase, but the process of depreciation continues anyway. The rationale for depreciation lies in the matching principle. Our goal is to offset a reasonable portion of the asset's cost against revenue in each period of the asset's useful life. **Depreciation expense occurs continuously over the life of the asset**, but there are on daily **"depreciation transactions".** In effect, depreciation expenses are paid in advance when the asset is originally purchased. Therefore, adjusting entries are needed at the end of each accounting period to transfer an appropriate amount of the asset's to cost to depreciation expense.

4.3 Depreciation Is Only an Estimate

Depreciation is Only an Estimate



The appropriate amount of depreciation expense is only an estimate. After all, we cannot look at a building or a piece of equipment and determine precisely how much of its economic usefulness has expired during the current period.

The most widely used means of estimating periodic depreciation expenses is the straight – line method of depreciation. Under the straight – line approach, an equal portion of the asset's cost is allocated to depreciation expense in every period of the asset's estimated useful life. The formula for computing depreciation expense by the straight- line method is shown below.

Cost of the asset

Depreciation expense (Per period) = ------Estimated useful life

The use of an estimated useful life is the major reason that depreciation expense is only an estimate. In most cases, management does not know in advance exactly how long the asset will remain in use.

How long does a building last? For purposes of computing depreciation expense, most companies estimate about 30 or 40 years, but the empire state building was built in 1931, and it's not likely to be torn down anytime soon. And how about Windsor Castle? While these are not typical examples, they illustrate the difficulty in estimating in advance just how long depreciable assets may remain in use.

Example **Example 4.1**



Depreciation of Summit's Building:

Summit purchased its building for \$36,000 on January 22. Because the building was old, its estimated remaining useful life is only 20 years. Therefore the building's monthly depreciation expense is \$150 (\$36,000) cost \div 240 months). We will assume that summit did not record any depreciation expense in January because it operated for only a small part of the month. Thus the building's \$1.500 depreciation expense reported in summit's trail balance. An additional \$150 of depreciation expense is still needed on the building for December (bringing the total to be reported in the income statement for the year to \$1,650)

The adjusting entry to record depreciation expense on summit building for the month of December appears below:

Dec 31	Depreciation Expense: Building	150
	Accumulated Depreciation: Building	150
	Monthly depreciation on building (\$36.	000 ÷ 240 mo.).

The depreciation expenses: Building account will appear in summit income statement along with other expenses for the year ended December 31, 2004. The balance in the **Accumulated Depreciation: Building** account will be reported in the December 31 balance sheet as a deduction from the Building Account. As shown in the following:

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Building	\$ 36,000
Less : Accumulated Depreciation Building	(1,650)
Book Value	\$ 34,350

Accumulated Depreciation: building is an example of a contra – asset account because (1) it has a credit balance, and (2) it is offset against an asset. Accountants often use the term book value (or carrying value) to describe the net valuation of an asset in a company's accounting records. For depreciable assets, such as building and equipment, book value is equal to the cost of the asset, less the related amount of accumulated depreciation. The end result of crediting the Accumulated Depreciation: Building account is much as if the credit had been made directly to the Building account: so that the book value reported in the balance sheet for the building is reduced from \$36,000 to \$34,350.

Book value is of significance primary for accounting purposes. It represents costs that will be offset against the revenue of the future periods. It also gives users of financial statements an indication of the age of a company's depreciable assets (older assets tend to have larger amounts of accumulated depreciation associated with them than newer assets). It is important to realize that the computation of book value is based upon an asset's historical cost. Thus, Book value is not intended to represent asset's current market value.

Example **Example 4.2**



Depreciation of Tools and Equipment

Summit depreciates its tools and equipment over a period of five years (60 months) using the straight – Line method. The December 31 trial balance shows that the company owns tools and equipment that cost \$12,000 therefore, the adjusting entry to record December's depreciation expense is:

Dec 31 Depreciation Expense: Tools and Equipment Accumulated Depreciation: Tools and Equipment Monthly deprecation of tools and equipment (\$12.000 ÷ 60 months = \$ 200 mo.)

Again, we assume that Summit did not record depreciation expense for tools and equipment in January because it operated for only a small part of the month. *Thus, the related \$2,000 depreciation expense reported in. The tools and equipment still require an additional \$200 of depreciation for December (Bringing the total to be reported in the income statement for the year to \$2,200).*

What is the book value of Overnight's tools and equipment at December 31, 2004? If you said \$9,800, you're right.

Cash Effects 4.4 Cash Effects



Depreciation is "non cash" expense "We have made the point that net income does not represent an inflow of cash or any other asset. Rather, it is a computation of the overall effect of certain business transactions on owner's equity. The computation and recognition of depreciation expense illustrate this point.

As depreciable assets "expire" owners' equity declines; but there is no corresponding cash outlay in the current period. For this reason, depreciation is called a non cash expense. Often it represents the largest difference between net income and the cash flows resulting from business operations.

Accounting for Sales Taxes

4.5 Accounting for Sales Taxes

Sales taxes are levied by many companies on retail sales "sales taxes actually are imposed on; the consumer, not on the seller. However, the seller must collect the tax, file tax returns at times specified by law, and remit to governmental agencies the taxes collected.

For cash sales, sales tax is collected from the customer at the time of the sales transaction. For credit sales, the sales tax is included in the amount charged to the customer's account. The liability to the governmental unit for sales taxes may be recorded at the time the sale is made, as shown in the following journal entry:

Cash (or Accounts Receivable)	1,070
Sales Tax payable	, 70
Sales	1,000

To record sales of \$ 1,000, subject to 7% sales tax.

This approach requires separate credit entry to the Sales Tax Payable account for each sale, At first glance; this may seem to require an excessive amount of bookkeeping. However, today's point-of-sale terminals automatically record the sales tax liability at the time of each sale.