MEASUREMENT

OF

INCOME

Income Measurement

- Net Profit - increase in equity from the operations of the business (reported for fiscal/ financial year, accounting period or reporting period);

- [Revenue - the gross inflow of economic benefits during the period ***Less*** Expenses - the decrease in economic benefits during the accounting period].

- Crucial is the timing when the above items are recorded, there by generating:

1. Accrual items: **Unrecorded expenses** that has been incurred or unrecorded revenue that has been earned;
2. Deferral items: **Delay in recognition** of an expense or revenue;
3. Cash payment of expenses & receipt of revenue

Accrual *vs* Cash System of Accounting

- The Accrual system of accounting recognizes revenues when a business provides goods or services or expenses when it incurs them, regardless of when it receives or pays cash.

1. Net profit equals the revenues earned less expenses incurred during a period.
2. Based on Realization Principle & Matching Principle.

- The Cash System reports revenues on receiving cash and expenses on paying cash. It distorts financial performance by not matching revenues earned & expenses incurred.

Accrual System
1) Realization Principle

- Also known as Revenue Recognition Principle, it requires that revenue be recognized at the time it is earned:

1. Earning process is complete or virtually complete; &
2. An exchange has taken place.

- Balance sheet effect: Revenue recognition is simultaneous with increase in an asset (cash or receivables/ debtors) or a decrease in a liability (unearned revenue).

Accrual System
2) Matching Principle

- Requires recording expenses in the same accounting period in which the revenues were earned as a result of the expenses (Expense recognition);
- Refers to comparing accomplishments with efforts.

- Balance sheet effect: Expense recognition is simultaneous with decrease in an asset (cash) or a increase in a liability (creditors, payables etc.).

The Adjustment Process

(allocating revenues to appropriate periods following Accrual Accounting Principles)

Cash Receipts – Cash received in the Current Period for services provided in the current period

+

Unearned Revenue – Cash received in a past period for services provided in the Current Period

+

Accrued Revenue – Cash Receivable in a future period for services provided in the current period

=

Revenue for the Current Period

Profit & Loss Account/ Income Statement/ Profit & Loss Statement

The Adjustment Process

(allocating expenses to appropriate periods following Accrual Accounting Principles)

Cash Payments – Cash paid in the Current Period for benefits received in the current period

+

Prepaid Expenses– Cash paid in a past period for benefits received in the current period

+

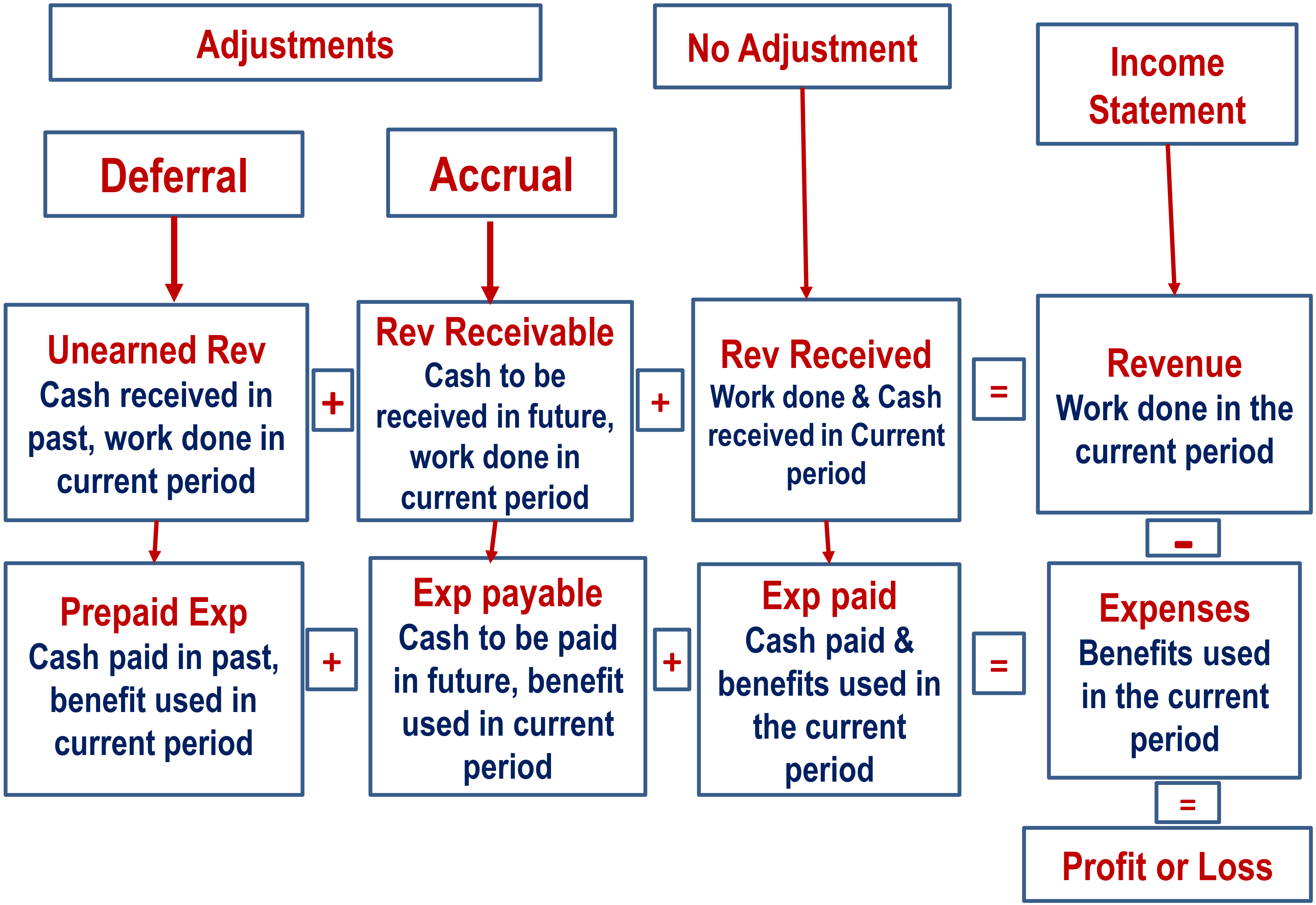
Accrued Expenses – Cash Payable in a future period for benefits received in the current period

=

Expenses for the Current Period

Profit & Loss Account/ Income Statement/ Profit& Loss Statement

Adjustment Process



Types of Adjustments

Sl. No.	Scenario	Classification of Adjustments
1	Cash is received before revenue is earned	Deferred Revenue/ Unearned Revenue
2	Cash is received after revenue is earned	Accrued Revenue
3	Cash is paid before expense is incurred	Deferred Expenses
4	Cash is paid after expense is incurred	Accrued Expense
5	Depreciation – A non-cash expense (to be treated like cash is paid before expense is incurred)	Deferred Expense (Contra-Asset treatment)

The Adjustment Process

- Adjusting entries - journal entries prepared at the end of the accounting period to ensure that revenues are recorded in the period in which they are earned, & expenses are recognized in the period in which they are incurred.

- Features:

1. An adjusting entry affects both a Balance sheet account (asset or liability) and an Income Statement Account (revenue or expense);
2. An adjusting entry does not affect the Cash Account.

1. Unearned Revenue/ Revenue Received in Advances/ Deferred Revenue

- Recorded revenues to be apportioned among two or more accounting periods.

- These amounts were initially recorded in one account, and at the end of the accounting period must be properly divided between a revenue and a liability account.

Unearned Revenue………

- **Expl.:** Fees collected by a Service firm on January 1, 200X for 15 months – Rs.7,500. - the books of accounts are closed on on March 31, 200X
- Rs.6,000 is applicable to the next period (i.e. for 200X – 20XI) and hence is a liability at the end of the current period.
- **Analysis:** Liability (Unearned Fees) decreased by Rs.1,500; Revenues (Fees revenue earned) increased by Rs.1,500
- **Rule:** Decrease in liability is recorded by a debit and increase in revenue is recorded by a credit.
- Debit Unearned Fee Revenue Account 1,500
- Credit Fee Revenue Account 1,500

(1) Fee Revenue earned		(2) Unearned Fee Revenue	
Mar 31 Bal.Fig 1,500	Mar 31 1,500	Mar 31 1,500	Jan 1 7,500
		Mar 31 Bal. Fig 6,000	---------
	As it is a Temporary Account it will be closed & will be sent to Income Statement	7,500	7,500
			Apr 1 Op. Bal 6,000

2. Unrecorded/Accrued Revenues

- These revenues were earned during the period but no record of them has yet been made.
- Expl.:Rs.12,000 of revenue earned by the entity during the period but not yet received - Credit Customers (Debtors/ Receivables)
- Analysis: Increase in asset (Receivable) and increase in revenue (Sales Revenue).
- Rule: Increase in asset is recorded by a debit and increase in revenue is recorded by a credit.
- Debit Receivable Account – 12,000
- Credit Sales Revenue Account – 12,000

(1) Receivable Account		(2) Sales Revenue	
12,000			12,000

Apportioning Recorded Expenses
3. Prepaid Expenses

- Recorded costs to be apportioned among two or more accounting periods.
- By the end of the period, the portion of these services that has been consumed during the period has become an expense and the unused portion represents an asset.
- Expl.: Inventory, prepaid expenses etc.

Apportioning Recorded Expenses
3. Prepaid Expenses

- Example: Prepaid Insurance, originally recorded for Rs.7,200 at the beginning of the year - of which Rs.3,000 becomes an expense for the current period
- Analysis: Increase in Insurance expense and decrease in prepaid expense.
- Rule: Increase in expense is recorded by a debit and decrease in asset is recorded by a credit.
- Entry: Debit Insurance Expense …… Rs.3,000
- Credit Prepaid Insurance …….Rs.3,000

(1) Insurance Expense		(2) Prepaid Expense	
Mar 31,200X 3,000		Apr01, 20IX 7,200	Mar 31,200X 3,000

4. Unrecorded / Accrued / Outstanding Expenses……….

- Outstanding Expense, the firm is liable to pay in next accounting period.
- Rule: Increase in expense has to be debited& Increase in liability has to be credited.
- Expl.:Wages outstanding for the accounting period Rs.2,50,000

(1) Wages Expense		(2) Accrued Wages	
2,50,000			2,50,000

5. Depreciation
(Non-Cash Expense)

- Portion of long-lived asset costs that has become expense during an accounting period.

- Factors: 1.Service life of asset, 2. Residual Value, 3. Cost of the asset along with additional attributable costs

- Long-Lived Assets: 1)Plant, 2)Land, 3)Land improvement, 4)Buildings, 5)Equipment, & 6) Lease – *(Refer to Chapter-6)*

Long-lived Assets

- **1) Plant:** all normal expenditures necessary to (i) acquire an asset & (ii) make it ready for its intended use - referred to as **capital expenditures -** Once cost is established, it becomes the basis of accounting for the plant asset over its useful life
  - **Purchase price including non-refundable duties & taxes after deducting trade discounts/ rebates**
  - **Any directly attributable costs of putting the asset in the location for intended use**
  - **Estimated costs of dismantling, removing & site restoration**
- **Revenue Expenditures –** incurred for ordinary repair, maintenance, fuel & other items needed to use long-lived assets – expensed immediately as benefits do not last beyond that period

- **2) Land – Land has unlimited life and is not subject to depreciation & the full cost includes:**

  Cash purchase price; (+)Closing costs such as title and attorney's fees; (+)Real estate brokers' commissions: (+)Accrued property taxes and other liens on the land assumed by the purchaser

Long-lived Assets……………

- 3) Land improvements – structural additions made to land such as driveways, parking lots, fences, and underground sprinklers
- 4) Buildings –facilities used in operations, such as stores, offices, factories, warehouses, and airplane hangers & are recorded at the full cost
  - When purchased, costs include purchase price, (+)closing costs (attorney's fees, title insurance, etc.), (+)real estate broker's commissions
  - When constructed, cost consists of the contract price, (+) payments made by the owner for architect's fees, building permits, and excavation costs.
- 5) Equipment - store check-out counters, office furniture, factory machinery, delivery trucks, airplanes etc.
- Cost = cash purchase price, (+) sales tax, (+)freight charges, (+) insurance during transit paid by the purchaser, (+)other expenditures required in assembling, installing and testing the unit.

Long-lived Assets……………..

- 6) Leasing – An alternative to purchasing an asset - two broad categories:

- a. Capital leases - transferring ownership to the lessee - both the asset & the liability are shown on the balance sheet - for the lessee, long-term capital lease agreements are accounted for in a way that is very similar to purchases

- b. Operating lease - a party that owns an asset (the lessor) agrees to allow another party (the lessee) to use the asset for an agreed period of time at an agreed price - a rental lease for office space - assets & liabilities are not reported

Depreciation Methods

- Straight Line Method (SLM)
- $$\frac{\text{Original Cost} - \text{Estimated Scrap}}{\text{Estimated useful life of the Fixed Asset}}$$
- (*Amount* of Depreciation is fixed)

- Written Down Value Method
- $$1 - \sqrt[n]{\frac{\text{Estimated Scrap Value}}{\text{Original Cost}}}$$
- (*Rate* of Depreciation is fixed)

Differences Between SLM and WDV

- In SLM depreciation cost is a fixed amount every year, where as, in WDV a fixed rate of depreciation is charged on the book value of the asset, over its useful life. So, annual depreciation in SLM remains fixed where as, the amount of depreciation in WDV diminishes every year.

- In SLM, depreciation is calculated on the original cost; where as in WDV, depreciation is on the basis of written down value of the asset.

- In SLM, the book value of the asset is completely written off i.e. the asset value is reduced to zero or its salvage value. Conversely, the asset's book value is not completely written off in WDV method.

- The amount of depreciation is initially lower under SLM while under WDV the amount of depreciation is higher in the beginning.

- The SLM method is best for the fixed assets with negligible repairs and maintenance like leases. On the contrary, WDV method is appropriate for the fixed assets whose repairs increase, as they get older like machinery, vehicles, etc.

Depreciation Methods

- Sum of the Year Digit method (SYD)

- Rate of Depreciation =

  (n/SYD) = for the first year

  {(n-1)/SYD} = for the second year

  {(n-2)/SYD} = for the third year
- SYD = 1+2+3+……….+n

- Rate is applied to the net cost.

Depreciation Methods

- Production Units Method - assumes that depreciation arises solely from the wear & tear because of the use of an asset
- Here depreciation amount of an asset is divided by the total estimated output during the useful life to obtain the unit depreciation rate
- Yearly depreciation expense is calculated by multiplying the unit rate by the yearly output

Example

- A Construction company purchased an earthmoving equipment for Rs.2,00,000, expected to have an useful life of 6 years, or 15,000 hours with an estimated residual value of Rs.20,000 at the end of the time. The equipment logged 2,000 hours in the first year.
- Compute depreciation expenses under various methods.

- SLM- Rs.30,000; WDV- Rs.63,740;

  SYD - Rs.51,429; PU – Rs. 24,000.

- For proper explanation of different depreciation methods you may refer to https://corporatefinanceinstitute.com/resources/knowledge/ accounting/types-depreciation-methods/

Depreciation for Income Tax Purpose

- Depreciation is tax deductible
- Accounting depreciation is different than that of the Tax depreciation
- Income tax rules permit firms to claim depreciation benefits at the prescribed rates using WDV Method (firm gets higher tax benefits in the initial years on the basis of higher depreciation as per WDV method)
- Accounting depreciation takes into consideration the useful life of the asset including the salvage value after the useful life – recommends SLM – used for shareholder reporting