Week 2: Classification and Measurement

Revenue Recognition

Companies recognize revenue when goods or services are transferred to customers for the amount the company expects to be entitled to receive in exchange for those goods or services.

- Recognize revenue when the "performance obligation is satisfied"

Five steps are used to apply the principle:

1. Identify the contract with a customer.
   - A contract establishes the legal rights and obligation of the seller and the customer
2. Identify the performance obligation(s) in the contract.
   - Contracts can indicate that the seller has one or more performance obligations.
3. Determine the transaction price.
   - The transaction price is the amount the seller is entitled to receive from the customer.
4. Allocate the transaction price to each performance obligation.
   - If there are multiple performance obligations, the contract price must be allocated among them.
5. Recognize revenue when (or as) each performance obligation is satisfied.
   - Recognize revenue for each performance obligation at a point in time or over time, depending on how that performance obligation is satisfied.

Example: Tomato Inc. sells the FertPhone, a smartphone and competitor to Apple's IPhone. When Tomato sells a phone to a customer it includes the Awesome Operating System (AOS) and a variety of applications. On October 1, 2024 Tomato sells 1,000 FertPhones to consumers for $800 each. These FertPhones have no service contract. Tomato estimates that 60% of the sales price is attributable to the phones hardware and that the software will be used for two years on average. How much revenue will Tomato recognize each year?

Cash and Cash Equivalents

- Cash – includes money or currency the firm has on hand or in checking accounts, and items acceptable for deposit in these accounts, such as checks and money orders.
- Cash equivalents – include items such as money market funds, short-term certificates of deposit, and treasury bills. Companies typically classify investments with maturity dates of three months or less when purchased as cash equivalents.
- Restricted cash – cash that is restricted and not available for current use usually is reported as investments or other assets.

Accounts Receivable (A/R)

- Funds owed to our firm from the sale of goods or services
- When companies sell to other companies, they offer credit terms, which are called sales on credit (or credit sales or sales on account).
- Initial valuation of A/R is at the amount of the credit sale
- Subsequent valuation of A/R is at the amount expected to be received, called the net realizable value.

Two things must be estimated to determine the net realizable value:

(1) The amount that will not be collected because some customers are unable to pay – called uncollectibles

(2) The amount that will not be collected because of sales returns

Uncollectible A/R

- Bad Debts: Customers who don't pay the amount they owe

Allowance for Uncollectible Accounts (also called the Provision Method):

- Estimate future bad debts and match that expense against the related revenues in the same period as the revenues are recognized.
- Write-off accounts receivable when it becomes uncollectible.
- The amount of expected uncollectible accounts is usually computed based on an aging analysis or a simple percentage
- Matches expenses to the same period as revenues

Example: The Raintree Cosmetic Company sells its products to customers on a credit basis. The 2022 balance sheet disclosed the following:

Current Assets:	
Receivables, net of allowance for bad debt of $30	$432

During 2023, credit sales were $1,750, cash collections from customers $1,830, and $35 in accounts receivable were written off. The allowance for uncollectible accounts is estimated to be 10% of the year-end balance in A/R. How much allowance for uncollectible accounts will Raintree recognize at the end of 2023? How much bad debt expense will they recognize?

Inventory
Inventories are assets consisting of goods owned by the business and held for resale or for future use in the manufacturing of goods for sale.

What costs should be included in inventory?
Inventory should include costs of the goods plus all costs required to obtain physical possession and to put the merchandise in saleable condition.

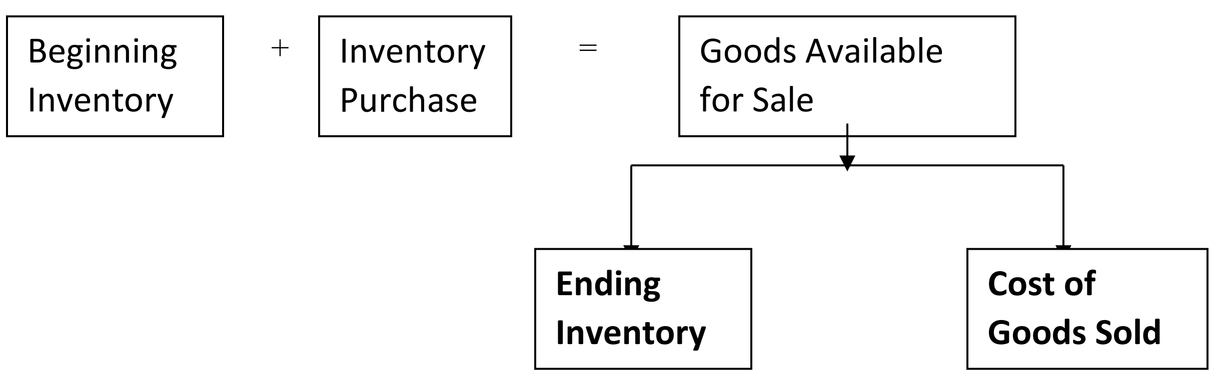
Two types of inventory

- Merchandising Inventories: physical form of the goods is not altered prior to the sale.
  Cost = purchase price + [taxes, duties, freight, storage, insurance during transit, etc] – [discounts & allowances, purchase returns, purchase discounts]
- Manufacturing Inventories: physical form of the goods is altered prior to the sale. Typically includes three categories:
  (1) Raw Material Inventory
  (2) Work-in-Process Inventory
  (3) Finished Good Inventory
  Cost = raw materials + direct labor cost + indirect factory costs (e.g., electricity, depreciation of equipment & building, supervisory salaries, supplies, etc.)

Inventory Cost Flow Assumptions
Firms purchase or manufacture products at different times and different costs

- Which units were sold and which units are still in inventory?
- How should dollar amounts be assigned?

The choice of method for making the allocation between Ending Inventory and COGS is <u>the</u> major issue in inventory accounting.



Inventory Costing Methods

- Specific Identification
- First-In, First-Out (FIFO). This method assumes that the first units purchased are the first units sold.
- Last-In, First-Out (LIFO). The LIFO inventory costing method assumes that the last units purchased are the first to be sold.
- Average cost. The average cost method assumes that the units are sold without regard to the order in which they are purchased. Instead, it computes COGS and ending inventories as a simple weighted average.

Example: Kingfisher Inc. started the period with 3,000 units of inventory valued at $6,000. During the year they made the following purchases (in order):

	Units	Price per Unit
Purchase 1	6,000	$3
Purchase 2	4,000	4
Purchase 3	5,000	5

Kingfisher sold 8,000 units of inventory during the year. Calculate Cost of Goods Sold and Ending Inventory under the assumption that the firm uses FIFO. Repeat the process for LIFO.

Investments

This category of assets includes our investments in other entities' debt securities and equity securities. Depending on the specifics of the situation the method for accounting for these investments can be wildly different.

- Consolidation- Equity with "control"
- Equity Method- Equity with "significant influence"
- Fair-Value Method- Equity without "significant influence"
- Held-to-Maturity- Debt with intention of holding to maturity
- Trading- Debt with intention of holding for a short period to get a gain
- Available-for-Sale- Debt without the previous intentions

Property Plant and Equipment (PPE)

- Actively used in operations
- Long-term periods of service utility
- Have physical substance
- These assets often makeup the largest asset amounts
- PPE include natural resources (e.g., timber track, coal mine, oil, and gas wells)

Report PPE on Balance Sheet

- Reported at Historical Cost less Accumulated Depreciation (known as the book value or carrying value)
- If impairment of value, write down to reflect lower fair market value (writing up assets is typically not allowed under GAAP)

Which expenditures should we include in "Historical Cost"

- All costs necessary to (1) acquire the asset and (2) make it ready for use.
- Historical Cost would include: purchase price, and other related costs such as sales tax, transportation costs, installation, testing, legal fees to establish title, recording fees, and any other costs to get the asset ready for use.
- Costs included in the asset account are called "capitalized costs"

Capitalization versus Expense

Key issue is whether resources spent on long-lived assets are capitalized (placed on the balance sheet) or expensed (immediately reducing net income)

- Expenditures which have been capitalized are depreciated over the useful life of the asset
- Total effect on net income is the same over the life of the firm – the only difference is the timing of reductions to net income

Example: On January 1, 2022, Brian Company purchased land as a factory site for $50,000 cash. Construction began on a building that was completed on Dec. 30, 2022. Costs incurred during this period are listed below:

Architect's fees for the building	$ 20,000
Cost of clearing the land	3,000
Legal fees for title investigation of land	4,000
Property taxes on land for 2023	5,000
Construction costs of the building	300,000
Interest on construction loan	3,500

Determine the amounts that are capitalized as the cost of the land and the new building.

Depreciation- The Financial Accounting Standards Board (FASB) defines depreciation as "a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimate life of the unit (which may be a group of assets), in a systematic and rational manner. It is a process of allocation, not of valuation."

Depreciation requires the following estimates:

- Useful life – period of time over which the asset is expected to generate cash inflows
- Salvage value – Expected disposal amount for the asset at the end of its useful life
- Depreciation rate – an estimate of how the asset will be used up over its useful life.

Depreciation Methods

- Straight-line method: Under the straight-line method, depreciation expense is recognized evenly over the estimated useful life of the asset.
- Accelerated Methods (Double-declining-balance)
- Activity-based methods (Units-of-Production)

Impairment of Value:

- PPE should be written down if there has been a significant and permanent impairment of value.
- For most long-term assets an impairment test is done whenever there is a triggering event.
- Triggering event – certain events or changes in circumstances that raise the possibility that certain long-lived assets may be impaired

Intangible Assets

- Have no physical substance
- Not financial instruments
- Convey certain legal and economic rights
- Uncertainty associated with future economic benefits

Classification:

- Identifiable: patents, copyrights, trademarks, franchises, licenses
- Unidentifiable: goodwill (goodwill recognized only with purchase of another business)

How intangibles are acquired:

- Acquired externally: can capitalize purchase cost and other related costs
- Developed internally: only direct costs (like legal fees) are capitalized- all other related costs are expensed as incurred

Overall accounting for intangibles is very conservative. Huge problem for many companies whose primary assets are intangibles.

Current Liabilities
Probable future sacrifices of economic benefits arising from present obligations to other entities resulting from past transactions or events.

- Obligations payable within one year or one operating cycle, whichever is longer.
- Expected to be satisfied with current assets or by the creation of other current liabilities.
- Examples: Accounts payable, Cash dividends payable, Accrued expenses, Unearned revenues, Taxes payable, Short-term notes payable
- Current liabilities are considered more risky than noncurrent liabilities
- Usually reported at their maturity amounts

Long-Term Debt

- Obligations that extend beyond one year or the operating cycle, whichever is longer
- Examples: Bonds payable, Notes payable, Mortgages payable, Pensions, Leases
- Signifies creditors' interest in a company's assets
- Requires the future payment of cash in specified (or estimated) amounts, at specified (or projected) dates.
- Mirror image of an asset
- As time passes, interest accrues on debt
- Periodic interest is the effective interest rate (market rate) times the amount of the debt outstanding during the interest period.
- Debt is reported at the present value of its related cash flows (principal and/or interest payments), discounted at the effective rate of interest at issuance.

Bonds

- A bond issue divides a large liability into many smaller liabilities
- Bonds are the most common type of corporate debt
- Bonds require the payment of the stated amount at maturity and interest at a stated rate
- Maturity of bonds range from 10-40 years
- Stated amount (principal, par value, face amount, maturity value)- the amount used to determine cash interest payments and the amount paid back at maturity
- Stated rate (coupon rate, nominal rate)- the interest rate used to determine cash interest payments
- Market rate (effective rate) – the going interest rate of similarly risky debt

Effective Interest Method

- Interest accrues on an outstanding debt at a constant percentage of the debt each period. Interest each period is recorded as the effective market rate of interest multiplied by the outstanding balance of the debt (during the interest period).
- Interest is recorded as expense to the issuer and revenue to the investor.

Example 1: On January 1, 2024, Lauren Industries issued $1,000,000 of 10% bonds. The market rate is also 10%. Interest is payable semiannually on June 30 and December 31. The bonds mature in three years. The entire bond issue was sold in a private placement to Abigail Corporation for $1,000,000. Complete the following table:

Date	Cash Payment	Interest Expense	Balance
1/1/24			
6/30/24			
12/31/24			
6/30/25			
12/31/25			
6/30/26			
12/31/26			

Example 2: On January 1, 2024, Lauren Industries issued $1,000,000 of 0% bonds. The market rate is 10%. The bonds mature in three years. The entire bond issue was sold in a private placement to Abigail Corporation for $746,215. Complete the following table:

Date	Cash Payment	Interest Expense	Balance
1/1/24			
6/30/24			
12/31/24			
6/30/25			
12/31/25			
6/30/26			
12/31/26			

Shareholders' Equity

Types of Business Structure
- Sole Proprietorship
- Partnership
- Corporation

Common Stock
- Share proportionately in profits or losses
- Owners of the company (voting rights)
- Residual interest
- Preemptive rights
- Common values
    - Par Value: Somewhat arbitrary amount used to determine legal capital, stated in the charter. When stock is issued for more than par value, the excess is reported in the account, Paid-in Capital in Excess of Par
    - Authorized: Maximum number of shares that can be issued
    - Issued: Number of shares distributed to stockholders (not retired)
    - Outstanding: Number of shares currently held by stockholders outside the corporation.

Preferred Stock
- Some rights of ownership
- Preference over common stock (but not debt) in dividends and/or liquidation

Treasury Stock
- Represents the reacquisition of the firm's shares from shareholders
- A "contra" equity account

Retained Earnings
- Accumulation of Earnings Minus Dividends
- Dividends
    - Cash- only one that affects RE
    - Stock
    - Stock Splits