ACCT 110 Accounting for Professionals

Lecture Notes

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January 2023

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Chapter 1 An Introduction to Accounting

1.1 Role of Accounting in Society

1.1.1 Accounting Facilitates Resource Allocation

A **market** is a group of people or entities organized to exchange items of value. The market for business resources involves three distinct participants: **consumers, businesses, and resource owners**.

Common terms for the added value created in the transformation process include **profit, income, or earnings**. Accountants measure the added value as the difference between the cost of a product or service and the selling price of that product or service.

The specific resources businesses commonly use to satisfy consumer demand are **financial resources, physical resources, and labor resources**.

1. **Financial Resources**
   - **Investors** provide financial resources in exchange for ownership interests in businesses. Owners expect businesses to return to them a share of the business including a portion of earned income.
   - **Creditors** lend financial resources to businesses. Instead of a share of the business, creditors expect the businesses to repay borrowed resources plus a specified fee called interest. **Creditors get paid before investors in liquidation.**
2. **Physical Resources**

   Physical resources are natural resources. Physical resources often move through numerous stages of transformation.
3. **Labor Resources**

   Labor resources include both intellectual and physical labor.

1.1.2 Accounting Provides Information

The many users of accounting information are commonly called **stakeholders**. Stakeholders include resource providers, financial analysts, brokers, attorneys, government regulators, and news reporters.

1.1.3 Types of Accounting Information

- **Financial accounting**: for external users (investors, creditors, lawyers, and financial analysts), must follow GAAP by FASB, indicate the past financial situations.
- **Managerial accounting**: for internal users (stakeholders such as managers and employees who work within a business), provide much more details about businesses, indicate future financial expectations. External and internal users are both interested in the amount of income a business

earns. Managerial accounting information, however, is usually more detailed than financial accounting reports.

1.1.4 Nonbusiness Resource Usage

Organizations that are not motivated by profit are called **not-for-profit entities** (also called **nonprofit** or nonbusiness organizations). Stakeholders interested in nonprofit organizations also need accounting information. This information serves a host of stakeholders, including taxpayers, contributors, lenders, suppliers, employees, managers, financial analysts, attorneys, and beneficiaries.

1.1.5 GAAP

The **Financial Accounting Standards Board (FASB)** is a privately funded organization with the primary authority for establishing accounting standards in the United States. The measurement rules established by the FASB are called **Generally Accepted Accounting Principles (GAAP)**. Financial reports issued to the public must follow GAAP.

1.1.6 Accounting Provides Jobs

- **Public Accounting** #public_accounting CPA stands for **certified public accountant**. Services typically offered by public accountants include:
    - audit services
    - tax services
    - consulting services
- **Private Accounting** #private_accounting Accountants employed in the private sector usually work for a specific company or nonprofit organization. Their duties include classifying and recording transactions, billing customers and collecting amounts due, ordering merchandise, paying suppliers, preparing and analyzing financial statements, developing budgets, measuring costs, assessing performance, and making decisions.

The people or businesses accountants report on are called **reporting entities**.

1.2 Creating an Accounting Equation

$$\text{Assets} = \text{Claims Assets} = \text{Liabilities} + \text{Stockholders' equity Assets} = \text{Liabilities} + \text{Common stock} + \text{Retained earnings}$$

The resources a business uses to make money are called **assets**. There are three distinct sources for assets:

1. **Creditors** When a business receives cash from creditors it accepts an obligation to return the cash to the creditors at some future date. In accounting terms, the obligations a business has to its creditors are called **liabilities**.
2. **Investors** The business also grants the investor an ownership interest in the business thereby allowing the investor (owner) to share in the profits generated by the business. The specific

commitments made to the investors are described in certificates called **common stock**. In accounting terms investors are called **stockholders**. Further, the business's commitment to the stockholders is called **stockholders' equity**.

3. **Operations** Businesses use assets in order to produce higher amounts of other assets.

- Net increases in assets generated from operations are commonly called **earnings** or **income**.
- Net decreases in assets caused by operations are called **losses**.
- A business may distribute all or part of the assets generated through operations to the shareholders.
- The distribution of assets generated through earnings is called a **dividend**. Paying dividends is an option, not a legal requirement.
- The relationship between a business's assets and the claims on its assets is frequently expressed in an equality called the **accounting equation**.

Instead of paying dividends, a business may retain the assets it generates through operations. If a business retains the assets, it commits to use those assets for the benefit of the stockholders. This increase in the business's commitments to its stockholders is normally called **retained earnings**.

1.3 Recording Business Events Under an Accounting Equation

- An **accounting event** is an economic occurrence that changes an enterprise's assets, liabilities, or stockholders' equity.
- A **transaction** is a particular kind of event that involves transferring something of value between two entities. Examples of transactions include acquiring assets from owners, borrowing money from creditors, and purchasing or selling goods and services.
- Companies typically report about business activity occurring over a span of time called **accounting period**.

1.3.1 Asset Source Transactions

Businesses acquire assets **from owners (stockholders)**; they borrow assets from creditors; and they earn assets through profitable operations. Asset source transactions **increase total assets and total claims**.

Assets	Claims
+	+

- All transactions affect the accounting equation in at least two places. It is from this practice that the **double-entry bookkeeping system** derives its name.
- **Revenue** represents an economic benefit a company obtains by providing customers with goods and services.
- Transferring the Revenue account balance to the Retained Earnings account is part of a process called **closing the accounts**.

1.3.2 Asset Exchange Transactions

Businesses frequently trade one asset for another asset. In such cases, **the amount of one asset decreases and the amount of the other asset increases**. **Total assets are unaffected** by asset exchange transactions.

Assets	Claims
+	–

1.3.3 Asset Use Transactions

All asset use transactions **decrease the total amount of assets and the total amount of claims on assets (liabilities or stockholders' equity)**.

Assets	Claims
–	–

- An economic sacrifice a business incurs in the process of generating revenue is called an **expense**.
- If a business transfer some or all of its earned assets to owners, the transfer is frequently called a **dividend**.
- The **historical cost concept** requires that most assets be reported at the amount paid for them (their historical cost) **regardless of increases in market value**.
- The complete collection of a company's accounts is called the **general ledger**.

1.3.4 Interpreting Information Shown in the Accounting Equation

1.3.4.1 Business Liquidations Resulting from Net Losses

If a business ceases to operate, its remaining assets are sold and the sale proceeds are returned to the creditors and investors through a process called **business liquidation**. Creditors have priority in business liquidations. This means the business uses its assets first to settle the obligations to the creditors. Any assets remaining after the creditors have been paid are then distributed to the investors.

1.3.4.2 Business Liquidations Resulting from the Mismanagement of Assets

It is interesting to note that even profitable companies can be forced to liquidate. A company must properly manage its assets as well as its liabilities and stockholders' equity in order to remain a going concern.

The **going concern** doctrine assumes that a business is able to continue its operations into the foreseeable future. Many procedures and practices used by accountants are based on a going concern assumption. If a company's going concern status becomes uncertain, accountants are required to notify creditors and investors

1.3.4.3 Two Views of the Right Side of the Accounting Equation

- Liabilities can be viewed as sources of assets or, alternatively, as obligations of the business.

- The business has a **stewardship** function, which means that it has a duty to protect and use the assets for the benefit of the owners.

1.4 Preparing Financial Statements

1. Income statement
2. Statement of changes in stockholders' equity
3. Balance sheet
4. Statement of cash flows

1.4.1 Income Statement and the Matching Concept

- The **income statement** matches the expenses with the revenues that occur during a period when operating a business.
- If revenues exceed expenses, the difference is called **net income**. If expenses are greater than revenues, the difference is called **net loss**.
- The practice of pairing revenues with expenses on the income statement is called the **matching concept**.
- The income statement reflects accrual accounting.

$$Primary\ components\ (elements):-\ revenue\ -\ expense\ -\ net\ income$$

Observe the phrase **For the Year Ended** December 31, 2014, in the heading of the income statement. Income is measured for a span of time called the **accounting period**.

1.4.2 Statement of Changes in Stockholders' Equity

The **statement of changes in stockholders' equity** explains the effects of transactions on stockholders' equity during the accounting period.

Primary components:

- beginning common stock
- plus: common stock issued
- ending common stock
- beginning retained earnings
- plus: net income
- less: dividends
- ending retained earnings
- total stockholders' equity

- **For the Year Ended**

1.4.3 Balance Sheet

The **balance sheet** draws its name from the accounting equation. Total assets balance with (equal) liabilities and stockholders' equity. Assets are displayed in the balance sheet based on their level of **liquidity**. This means that assets are listed in the order of how rapidly they can be converted into cash.

Primary components:

- assets
- total assets
- liabilities
- stockholders' equity
- total stockholders' equity
- total liabilities and stockholders' equity

Note that the balance sheet is dated with the phrase **As of** December 31, 2014, indicating that it describes the company's financial condition on the last day of the accounting period.

1.4.4 Statement of Cash Flows

The **statement of cash flows** explains how a company obtained and used cash during the accounting period. Receipts of cash are called cash inflows, and payments are cash outflows. The statement classifies cash receipts (inflows) and payments (outflows) into three categories: #cashflow_act

1. **Financing activities**
   - obtaining cash (inflow) from owners
   - paying cash (outflow) to owners (dividends)
   - borrowing cash (inflow) from creditors
   - repaying the principal (outflow) to creditors
2. **Investing activities**
   - paying cash (outflow) to purchase long-term assets
   - receiving cash (inflow) from selling long-term assets (Long-term assets are normally used for more than one year.)
3. **Operating activities**
   - receiving cash (inflow) from revenue
   - paying cash (outflow) for expenses
   - cash spent to purchase short-term assets
   - cash paid to creditors for interest

Accountants use the term **articulation** to account information to describe the interrelationships among the various elements of the financial statements.

1.4.5 Primary and Temporary Accounts

- The process of transferring information from the revenue, expense, and the dividend accounts to the retained earnings account is called **closing**.
- Since the Revenue, Expense, and Explain the closing Dividend accounts are closed each period, they are called **temporary accounts**. At the process, beginning of each new accounting period, the temporary accounts have zero balances.
- The Retained Earnings account carries forward from one accounting period to the next. Since this account is not closed, it is called a **permanent account**.

1.5 The Horizontal Financial Statements Model

1.5.1 Real-World Financial Reports

- Service businesses
- Merchandising businesses (retail or wholesale companies)
- Manufacturing businesses
- not-for-profit entities

1.5.2 Annual Report for Target Corporation

Organizations normally provide information including financial statements to stakeholders yearly in the document known as **annual report**. The annual report contains the *auditor's report*, also include written commentary describing management assessment of significant events that affected the company during the reporting period, this commentary is called **management discussion and analysis (MD&A)**.

The SEC requires public companies to file an annual report in a Form 10-K, which includes:

1. management discussion and analysis (MD&A)
2. notes to the financial statements
3. financial statements

Chapter 2 Accounting for Accruals and Deferrals

2.1 Accounting for Accruals

- Recognizing revenue when it is earned and expenses when they are incurred, regardless of when cash changes hands, is commonly called **accrual accounting**.
- The term accrual describes a revenue or an expense event that is recognized **before** cash is exchanged.
- The term **deferral** describes a revenue or an expense event that is recognized after cash has been exchanged.

Accrual accounting is required by GAAP.

2.2 Accounting for Receivables

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Issue of stock for cash	cash, com. stk	NA	+ FA	AS
Providing services on account	accts. rec., ret. earn.	rev	NA	AS
Collect account receivable	cash, accts. rec.	NA	+ OA	AE
Cash payment for expense	cash, ret. earn.	exp	- OA	AU
Sign contracts	NA	NA	NA	NA

- The balance in Accounts Receivable represents the amount of cash the company expects to collect in the future.

2.3 Accounting for Payables (Adjusting the Accounts)

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Record accrued expense (adjusting entry)	XX pay., ret. earn.	exp	NA	CE

- The entry to recognizethe accrued salary expense is called an **adjusting entry**.

2.4 Steps in an Accounting Cycle

2.4.1 The Closing Process

At the end of the accounting cycle the balances in the temporary accounts (revenue, expense, and dividends) are transferred (closed) to the permanent account.

❖ **Four Steps in an accounting cycle:**

1) Record transactions

2) Adjust accounts

3) Prepare statements

4) Close temporary accounts

2.4.2 The Matching Concept

- A primary goal of accrual accounting is to appropriately match expenses with revenues, the **matching concept**.
- Expenses that are matched with the period in which they are incurred are frequently called **period costs**.

2.5 Second Accounting Cycle

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Pay the accrual expense	cash, XX pay.	NA	- OA	AU
Cash payment to creditors	cash, XX pay.	NA	- OA	AU

2.6 Accounting for Supplies

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Purchase supplies on account	supplies, acct. pay.	NA	NA	AS
Year-end adjustment for supplies	supplies, ret. earn.	exp	NA	AU

2.7 Accounting for Prepaid Items

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Purchase prepaid rent	cash, prepaid rent	NA	- OA	AE
Year-end adjustment for prepaid rent	prepaid rent, ret. earn.	exp	NA	AU

- Accrual accounting draws a distinction between the terms cost and expense. A **cost** might be either **an asset or an expense**.
- Deferred expenses are frequently called **prepaid items**.

2.8 Accounting for Unearned Revenue

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Received cash in advance for services	cash, unearned rev.	NA	+ OA	AS
Year-end adjustment for unearned revenue	unearned rev., ret. earn.	rev	NA	CE

- **Revenue** can therefore be more precisely defined as *an increase in assets or a decrease in liabilities that a company obtains by providing customers with goods or services*.

2.9 Preparing Financial Statements Include Deferrals

The **vertical statements model** shows significant interrelationships among the financial statements. For each year,

1. trace the amount of **net income** from the income statement to the statement of changes in stockholders' equity
2. trace the **ending balances of common stock** and **retained earnings** reported on the statement of changes in stockholders' equity to the stockholders' equity section of the balance sheet.

- **Preparing sequence:**
    1) Income statement
    2) Statement of changes in stockholders' equity
    3) Balance sheets
    4) Statement of cash flows

Chapter 3 Accounting for Merchandising Businesses

- **Merchandising businesses** generate revenue by selling goods. They buy the merchandise they sell from companies called suppliers.
- The goods purchased for resale are called **merchandise inventory**.
- Merchandising businesses include **retail and wholesale companies**.
  - **Retail companies**: Companies that sell goods to the final consumer
  - **Wholesale companies**: Companies that sell to other businesses

3.1 Accounting for Inventory Transactions

- **Product Costs**: All costs incurred to acquire merchandise and ready it for sale.
- **Selling and Administrative Costs**: Costs that are not included in inventory. They are sometimes called **period costs**.

3.1.1 Allocating Inventory Cost between Asset and Expense Accounts

The cost of inventory that is available for sale during a specific accounting period is determined as:

$$\text{Beginning inventory balance} + \text{Inventory purchased during the peiod} = \text{Cost of goods available for sale}$$

The cost of inventory items that have not been sold (Merchandise Inventory) is reported as an **asset** on the balance sheet, and the cost of the items sold (Cost of Goods Sold) is **expensed** on the income statement.

$$\text{Merchandise inventory (balance sheet)} + \text{Cost of goods available for sale} = \text{Cost of goods sold (income st.)}$$

$$\text{Sales revenue} - \text{Cost of goods sold} = \text{Gross margin / profit} - \text{Sell. \& Admin. Cost} = \text{Net income}$$

3.1.2 Perpetual vs. Periodic Inventory System

- Most modern companies maintain their inventory records using the **perpetual inventory system,** so-called because the inventory account is adjusted perpetually (continually) throughout the accounting period.
- **Periodic inventory system**: Method of accounting for changes in the inventory account only at the end of the accounting period.
  - **Advantage**: Recording efficiency
  - **Disadvantage**:
    - Less control of inventory
    - Does not separate cost of lost, damaged, or stolen merchandise from the cost of goods sold

3.2 Transactions Related

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Purchase merchandise inventory for cash	cash, inventory	NA	- OA	AE
Recognize sales revenue for cash	cash, ret. earn.	rev	+ OA	AS
Recognize cost of goods sold	inventory, ret. earn.	exp	NA	AU
Paid cash for sell.&admin. expenses	cash, ret. earn.	exp	- OA	AU
Borrow cash by issuing a note payable	cash, notes pay.	NA	+ FA	AS
Purchase merchandise inventory on account	inventory, acct. pay.	NA	NA	AS
Returned some of the inventory	inventory, acct. pay.	NA	NA	NA

- Sometimes dissatisfied buyers will agree to keep goods instead of returning them if the seller offers to reduce the price. Such reductions are called allowances. **Purchase allowances** affect the financial statements the same way purchase returns do.

3.3 Purchase Discounts

- To encourage buyers to pay promptly, sellers sometimes offer cash **discounts**.
- ... under terms **2/10, n/30 (two-ten, net thirty)**: pay within 10 days: 2% discount, pay due without discount: 30d #event_influ

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Received a cash discount	inventory, acct. pay.	NA	NA	NA

3.3.1 The Cost of Financing Inventory

Consider the terms 2/10, net/30. Since you can pay on the tenth day and still receive the discount, you obtain financing for only 20 days (30-day full credit term 2 10-day discount term). In other words, you must forgo a 2 percent discount to obtain a loan with a 20-day term. What is the size of the discount in **annual terms**? The answer is determined by the following formula.

$$Annual\ rate = Discount\ rate \times (365\ days \div Term\ of\ the\ loan)$$

3.4 Transportation Costs

Responsible Party	Buyer	Seller
Freight terms	FOB shipping point	FOB destination
Account title	Merchandise inventory (Transportation-in)	Transportation-out

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
FOB shipping point, paid cash for delivery	cash, inventory	NA	- OA	NA
Paid cash for freight costs on inventory delivered	cash, ret. earn.	exp	- OA	NA
Paid cash for interest expense on the note issued	cash, ret. earn.	exp	- FA	AU

- The income statement is not affected by this transaction since transportation-in costs are not expensed when they are incurred. Instead they are expensed as part of *cost of goods sold* when the inventory is sold.
- Transportation-out is reported on the income statement as an operating expense in the section below gross margin. The cost of freight on goods shipped to customers is incurred after the goods are sold.

3.5 Inventory Shrinkage

Most merchandising companies experience some level of inventory **shrinkage**, a term that reflects decreases in inventory for reasons other than sales to customers. Inventory may be stolen by shoplifters, damaged by customers or employees, or even simply lost or misplaced.

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Experienced shrinkage	inventory, ret. earn.	exp	NA	NA

3.6 Recognizing Gains and Losses

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Sold the land that has changed value for cash	cash, land	rev/exp	+/- IA	AE

- **Gain**: Increase in assets or decrease in liabilities that results from peripheral or incidental transactions.
- **Loss**: Decrease in assets or increase in liabilities that results from peripheral or incidental transactions.

3.6.1 Multistep Income Statement

- **Operating income** is the amount of income that is generated from the normal recurring operations of a business. Items that are not expected to recur on a regular basis are subtracted from the operating income to determine the amount of net income.
- Income statements that show these additional relationships are called **multistep income statements**. (Used by 70% US companies)
- Income statements that display a single comparison of all revenues minus all expenses are called **single-step income statements**.
- Note that interest is reported as a nonoperating item on the income statement. In contrast, it is shown in the operating activities section of the statement of cash flows. When the FASB issued **Statement of Financial Accounting Standard (SFAS)** 95, it required interest to be reported in the operating activities section of the statement of cash flows. There was no corresponding requirement for the treatment of interest on the income statement. Prior to SFAS 95, interest was considered to be a nonoperating item. Most companies continued to report interest as a nonoperating item on their income statements even though they were required to change how it was reported on the statement of cash flows. As a result, there is frequent inconsistency in the way interest is reported on the two financial statements.

3.7 Sales Returns, Allowances and Sales Discounts

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Sold on account merchandise under terms 1/10, n/30	acct. rec., ret. earn.	rev	NA	AS
Inventory was returned by customer	acct. rec., ret. earn.	(rev)	NA	NA
The cost of goods is returned to the inventory account	inventory, ret. earn.	(exp)	NA	NA
Recognizing sales discounts	acct. rec., ret. earn.	exp	NA	AU

- **Sales discounts** are price reductions offered by sellers to encourage buyers to pay promptly.

$$\textit{Gross sales} - \textit{Sales returns and allowance} - \textit{Sales discounts} = \textit{Net sales}$$

Chapter 5 Accounting for Receivables and Inventory Cost Flow

5.1 Estimating Uncollectible Accounts Expense

5.1.1 Percent of Revenue Method

- The **net realizable value (NVR)** of accounts receivable represents the amount of receivables a company estimates it will actually collect. The net realizable value is the *face value* less an method of accounting for *allowance for doubtful accounts*.
- The **allowance for doubtful accounts** represents a company's estimate of the amount of uncollectible receivables.

$$Accounts\ receivable - Allowance\ for\ doubtful\ accounts = NRV$$

- Reporting accounts receivable in the financial statements at NRV is commonly called the **allowance method of accounting for uncollectible accounts**.
- Recognizing the estimated uncollectible accounts expense (bad debts expense) improves the matching of revenues and expenses and therefore increases the accuracy of the financial statements.
- **Percent of revenue method (Income Statement Approach)**: Estimating the amount of uncollectible accounts expense as a percentage of the revenue earned on account during the accounting period. The percentage is typically based on a combination of factors such as historical experience, economic conditions, and the company's credit policies.
- **Contra asset account**: Account subtracted from another account with which it is associated; has the effect of reducing the asset account with which it is associated. #event_influ

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Recognizing Uncollectible Accounts Expense	NRV acct. rec., ret. earn.	exp	NA	AU
Write-off of uncollectible accounts receivable	NRV=0	NA	NA	AE
Recovery of an uncollectible account: Reinstate receivable	NRV=0	NA	NA	AE
Recovery of an uncollectible account: Collection of Receivable	cash, acct. rec.	NA	+ OA	AE

5.1.2 Percent of Receivables Method

- **Percent of receivables method (Balance Sheet Approach)**: Estimating the amount of the allowance for doubtful accounts as a percentage of the outstanding receivables balance. The percentage is typically based on a combination of factors such as historical experience, economic conditions, and the company's credit policies.

5.2 Aging Accounts Receivable

- The longer an account receivable remains past due, the less likely it is to be collected.
- **Aging of accounts receivable**: Classifying each account receivable by the number of days it has been outstanding. The aging schedule is used to develop an estimate of the amount of the allowance for doubtful accounts.
- The amount of accounts receivable that is estimated to be uncollectible is determined by applying different percentages to each category in the aging schedule.

5.3 Accounting for Notes Receivable (Promissory Notes)

- **Promissory note**: A legal document representing a credit agreement between a lender and a borrower.
    - Maker: The party issuing a note (the borrower).
    - Payee: The party collecting cash.
    - Principal: Amount of cash actually borrowed.
    - Interest: Fee paid for the use of funds; represents expense to the borrower and revenue to the lender.
    - Maturity date: The date a liability is due to be settled (the date the borrower is expected to repay a debt).
    - Collateral: Assets pledged as security for a loan. #event_influ

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Loan of Money	Cash, Notes. rec.	NA	- IA	AE
Accrual of Interest	Int. rec., Ret. earn.	rev	NA	AS
Collection of interest on the maturity date	Int. rec., Ret. earn.	rev	NA	AS
Collection of principle on the maturity date	Cash, Notes rec.,Int. rec.	NA	+ IA: Principle OA: Interest	AE

- **Accrued interest**: Interest revenue or expense that is recognized before cash has been exchanged.
- Businesses typically solve the record-keeling problem by only recording accrued interest when it is time to prepare financial statements or when it is due. **Adjusting entry**: Entry that updates account balances prior to preparing financial statements.
- **Matching concept is used in accrual of interest event**

$$Principle \times Annual\ interest\ rate \times Time\ outstanding = Interest\ revenue$$

5.4 Accounting for Credit Card Sales

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Recognition of Revenue and Expense on Credit Card Sales	Acct. rec., Ret. earn.	exp & rev	NA	AS

The credit card company deducts its service fee from the gross amount of the sale and pays the merchandise the balance in cash. The credit card company collects the gross sale amount directly from the customer. The merchant avoids the risk of uncollectible accounts as well as the cost of maintaining customer credit records.

5.5 Inventory Cost Flow Methods

1. **Specific Identification**: Inventory method that allocates costs between cost of goods sold and ending inventory using the cost of the specific goods sold or retained in the business. **Suitable for high-value, low-turnover goods.**
2. **First-In, First-Out (FIFO)**: Inventory cost flow method that treats the first items purchased as the first items sold for the purpose of computing cost of goods sold.
3. **Last-In, First-Out (LIFO)**: Inventory cost flow method that treats the last items purchased as the first items sold for the purpose of computing cost of goods sold.
4. **Weighted Average**: Inventory cost flow method in which the cost allocated between inventory and cost of goods sold is based on the average cost per unit, which is determined by dividing total costs of goods available for sale during the accounting period by total units available for sale during the period. If the average is recomputed each time a purchase is made, the result is called a *moving average*.

- **Physical Flow** The preceding discussion pertains to the flow of costs through the accounting records, not the actual physical flow of goods. Goods usually move physically on a FIFO basis, which means that the first items of merchandise acquired by a company (first-in) are the first items sold to its customers (first-out).

ICFM	Gross Margin & Net Income	Ending Balance	Income Tax Expense
FIFO	highest	largest	highest
LIFO	lowest	smallest	lowest

5.5.1 Influencing Factors

- **The Impact of Income Tax** Research suggests that, as a group, investors are knowledgeable. They make investment decisions based on economic substance regardless of how information is reported in financial statements.
- **The Income Statement vs. the Tax Return** In some instances companies may use one accounting method for financial reporting and a different method to compute income taxes (the tax return must explain any differences). With respect to LIFO, however, the Internal Revenue Service requires that companies using LIFO for income tax purposes must also use LIFO for financial reporting.
- **Inflation vs. Deflation** In a deflationary environment, the impact of using LIFO versus FIFO is reversed. LIFO produces tax advantages in an inflationary environment, while FIFO produces tax advantages in a deflationary environment.
- **Full Disclosure and Consistency** Generally accepted accounting principles allow each company to choose the inventory cost flow method best suited to its reporting needs. Because results can vary considerably among methods, however, the GAAP principle of **full disclosure** requires that financial statements disclose the method chosen. In addition, so that a company's financial statements are comparable from year to year, the GAAP principle of **consistency** generally requires that companies use the same cost flow method each period. The limited exceptions to the consistency principle are described in more advanced accounting courses.

Chapter 6 Accounting for Long-Term Operational Assets

6.1 Long-Term Operational Assets

- **Tangible assets**: Assets that can be touched, such as equipment, machinery, natural resources, and land.
- **Intangible assets**: Assets that may be represented by pieces of paper or contracts that appear tangible; however, the true value of an intangible asset lies in the rights and privileges extended to its owners.

6.1.1 Tangible Long-Term Assets

- **Property, Plant, and Equipment**: Category of assets, sometimes called *plant assets* or **fixed assets**, used to produce products or to carry on the administrative and selling functions of a business; includes machinery and equipment, buildings, and land.
    - **Depreciation**: Decline in value of long-term tangible assets such as buildings, furniture, or equipment. It is systematically recognized by accountants as depreciation expense over the useful lives of the affected assets.
- **Natural Resources**: Mineral deposits, oil and gas reserves, and reserves of timber, mines, and quarries are examples; sometimes called *wasting assets* because their value wastes away as the resources are removed.

6.1.2 Intangible Assets

- **Identifiable Useful Lives**: Method of systematically allocating the costs of intangible assets to expense over their useful lives. Examples including patents and copyrights.
- **Indefinite Useful Lives**: The benefits of some intangible assets may extend so far into the future that their useful lives cannot be estimated. The costs of such assets are not expensed unless the value of the assets becomes impaired. Examples including trademarks, goodwill and franchise.

6.1.3 Determining the Cost of Long-Term Assets

The **historical cost concept** requires that an asset be recorded at the amount paid for it. This amount includes the purchase price plus any costs necessary to get the asset in the location and condition for its intended use.

- The cost of a long-term asset includes:
    - realtor's and attorney fee's
        - sales tax
        - installation costs
        - purchase price

- Acquiring a group of assets in a single transaction is known as a **basket purchase**. The total price of a basket purchase must be allocated among the assets acquired. Accountants commonly allocate the purchase price using the **relative fair market value method**.
- **Relative fair market value method**: Method of assigning value to individual assets acquired in a basket purchase in which each asset is assigned a percentage of the total price paid for all assets. The percentage assigned equals the market value of a particular asset divided by the total of the market values of all assets acquired in the basket purchase

6.2 Method of Recognizing Depreciation Expense

- Life Cycle of an Operational Asset:
  - acquiring funding
  - buy asset
  - use asset
  - retire asset
- An asset that is fully depreciated by one company may still be useful to another company. The expected market value of a fully depreciated asset is called its **salvage value**.
- The total amount of depreciation a company recognizes for an asset, its **depreciable cost**, is the difference between its original cost and its salvage value.
- **Estimated useful life**: Time for which an asset is expected to be used by a business.
- Depreciation Method Used:
  - Straight-line
  - Accelerated (optional)
  - Units. of Production (optional)

6.2.1 Straight-Line Depreciation

$$(Asset\ cost - Salvage\ value) \div Useful\ life = Depreciation\ expense$$

Recognizing depreciation expense is an asset use transaction that reduces assets and equity. The asset reduction is reported using a **contra asset account** called **Accumulated Depreciation**. The **book value (carrying value)** of a long-term tangible asset is determined by subtracting the balance in the Accumulated Depreciation account from the balance in the associated asset account.

- Regardless of the depreciation method used, an asset cannot be depreciated below its salvage value.

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Recognizing depreciation expense	Book value, Ret. earn.	exp	NA	AU

6.2.2 Double-Declining-Balance Depreciation

Double-declining-balance depreciation produces a large amount of depreciation in the first year of an asset's life and progressively smaller levels of expense in each succeeding year. Because the double-declining-balance method recognizes depreciation expense more rapidly than the straight-line method does, it is called an **accelerated depreciation method**.

- Steps for depreciation expense:
    - Determine the straight-line rate
    - Determine the double-declining-balance rate
    - Determine the depreciation expense

The depreciation method a company uses does not affect how it acquires the financing, investing the funds, and retires the asset. The recording procedures are not affected by the depreciation method.

6.2.3 Units-of-Production Depreciation

$$\frac{Cost - Salvage\ value}{Total\ estimated\ units\ of\ production} \times Units\ of\ production\ in\ current\ year$$
$$= Annual\ depreciation\ expense$$

6.3 Accounting for the Disposal of Long-Term Operational Assets

Gains are like revenues in that they increase assets or decrease liabilities. Gains are unlike revenues in that gains result from peripheral (incidental) transactions rather than routine operating activities.

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Asset disposal	Cash, Book value, Ret. Earn.	Rev/gain	+ IA	AE

6.4 Continuing Expenditures for Plant Assets

- **Costs that are expensed**

  Maintenance costs are the costs of routine maintenance and minor repairs that are incurred to keep an asset in good working order.

- **Costs that are capitalized**
    - **Capital expenditures (on an existing asset)**: Substantial amounts of funds spent to improve an asset's quality or to extend its life.
        - Improving quality
        - Extending life #event_influ

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Capital expense	Cash, Book value	NA	- IA	AU

6.5 Natural Resources

- The process of expensing natural resources is commonly called **depletion**. The most common method used to calculate depletion is *units-of-production*.

The depletion of a natural resource has the same effect on the accounting equation as other expense recognition events. Assets (in this case, a coal mine) and stockholders' equity decrease. The depletion expense reduces net income.

6.6 Intangible Assets

- **Trademark**: Name or symbol that identifies a company or an individual product.
- **Patent**: Legal right granted by the U.S. Patent Office ensuring a company or an individual the exclusive right to a product or process. The legal life of a patent is 20 years.
- **Copyright**: Legal protection of writings, musical compositions, and other intellectual property for the exclusive use of the creator or persons assigned the right by the creator. The legal life of a copyright extends for the life of the creator plus 70 years.
- **Franchise**: Exclusive right to sell products or perform services in certain geographic areas.
- **Goodwill** is the value attributable of n favorable factors such as reputation, location, and superior products. If the asset purchase price is higher than the sum of liabilities and stockholders' equity, the buyer is purchasing the business's goodwill.

6.7 Expense Recognition for Intangible Assets

The costs of intangible assets with identifiable useful lives are normally expensed on a straight-line basis using a process called amortization. An intangible asset should be amortized over the shorter of two possible time periods:

1. its legal life
2. its useful life

Chapter 7 Accounting for Liabilities

7.1 Accounting for Notes Payable

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Issuing note	Cash, Notes pay.	NA	+ FA	AE
Recognize of accrued interest expense	Int. pay., Ret. earn.	exp	NA	CE
Recognize cash payment for interest	Cash, Int. pay.	NA	- OA	AU
Repaying the principle	Cash, Notes pay.	NA	- OA	AU

7.2 Accounting for Sales Tax

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Sells merchandise plus tax	Cash, Sales tax pay.	rev	+ OA	AS
Remitting the tax (paying cash to the tax authority)	Cash, Sales tax pay.	NA	- OA	AU

7.3 Contingent Liabilities

- A **contingent liability** is a potential obligation arising from a past event. The amount or existence of the obligation depends on some future event.
- Whether the event stems from a past event distinguishes contingent liabilities from general uncertainties.
- Generally accepted accounting principles require that companies classify reported in financial contingent liabilities into three different categories depending on the likelihood of statements:
    - **probable** (likely) & amount **can be reasonably estimated**, a liability is recognized in the financial statements.
        - warranties
            - vacation pay
            - sick leave

- **reasonably possible but not likely** or if it is **probable but cannot be reasonably estimated**, no liability is reported on the balance sheet. The potential liability is disclosed in the notes to the financial statements.
  - legal challenges
    - environmental damages
    - government investigations
- **remote**, no liability need be recognized in the financial statements or disclosed in the notes to the statements. Professional judgment is also required to distinguish between contingent liabilities and **general uncertainties**. All businesses face uncertainties such as competition and damage from floods or storms. Such uncertainties are not contingent liabilities, however, because they do not arise from past events.

7.4 Warranty Obligations

- **Warranty**: Promises to correct deficiencies or dissatisfactions in quality, quantity, or performance of products or services sold.
- Warranties usually represent liabilities that must be reported in the financial statements.
- Interest charges may be based on a **fixed interest rate** that remains constant during the term of the loan or may be based on a **variable interest rate** that fluctuates up or down during the loan period.

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Recognition of warranty expense	Warr. pay., Ret. earn.	exp	NA	NA
Settlement of warranty obligation	Cash, Warr. pay.	NA	- OA	AU

7.5 Installment Notes Payable

- Loans that require payments of principal and interest at regular intervals (amortizing loans) are typically represented by **installment notes**. The terms of installment note usually range from 2-5 years.

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Payment for installment	Cash, Note pay., Ret. earn.	exp	- OA: Interest FA: Principle	NA

7.6 Line of Credit

- Lines of credit typically have one-year terms. Although they are classified on the balance sheet as short-term liabilities, lines of credit are frequently extended indefinitely by simply renewing the credit agreement.

7.7 Bond Liabilities

Many companies borrow money directly from the public by selling **bond certificates**, otherwise called issuing bonds. Bond certificates describe a company's obligation to pay interest and to repay the principal. The seller, or **issuer**, of a bond is the borrower; the buyer of a bond, or **bondholder**, is the lender.
The amount due at maturity is and their related interest the **face value** of the bond. Most bonds also require the issuer to make cash interest costs payments based on a **stated interest rate** at regular intervals over the life of the bond.

- Advantage of Issuing Bonds:
    - Longer terms than notes issued to banks, usually have 20-year to maturity.
    - Interest rates may be lower than bank interest rates.

7.8 Current vs. Noncurrent

- A **current (short-term) asset** is expected to be converted to cash or consumed within one year or an operating cycle, whichever is longer.
- An **operating cycle** is defined as the average time it takes a business to convert cash to inventory, inventory to accounts receivable, and accounts receivable back to cash.
- **Current Assets**
    - cash
        - marketable securities
        - accounts receivable
        - short-term notes receivable
        - interest receivable
        - inventory
        - supplies
        - prepaid items
- Noncurrent Assets
    - accounts payable
        - short-term notes payable
        - wages payable

- taxes payable
- interest payable

- Balance sheets that distinguish between current and noncurrent items are called **classified balance sheets**.
- *refinancing short-term debt on a long-term basis*: if a business does not plan to use any of its current assets to repay a debt, that debt is listed as long term even if it is due within one year.

Chapter 8 Proprietorships, Partnerships, and Corporations

8.1 Forms of Business Organizations

- **Sole proprietorship**: Business (usually small) owned by one person.
  - Profits benefit a single individual
  - The business dissolves with the death of its only owner
  - Offers the least capacity to raise capital
  - Least regulated form of business
  - Offers the highest level of control over operating decisions
- **Partnership**: Business entity owned by at least two people who share talents, capital, and the risks of the business.
  - understand how to assess the partners income related to their contributions and ownership in the partnership. How to calculate withdrawals etcetera.
  - One owner may be held personally liable for actions taken on behalf of the business by different owner
  - Frequently uses legal agreements to define profit distribution for two or more owners
  - Provides the best opportunity to benefit a few people
  - Has multiple capital accounts but no retained earnings account on its balance sheet
  - Has two or more owners who are not stockholders
- **Corporation**: Legal entity separate from its owners; formed when a group of individuals with a common purpose join together in an organization according to state laws.
  - **Advantages**
    - Separate legal Entity
    - Limited liability of stockholders
    - Continuous life
    - Management Structure
    - Easily transferable ownership rights
    - Ability to raise capital
  - **Disadvantages**
    - Governmental regulation
    - Corporate double taxation
- Widely held vs. Closely held
- S Corporations are taxed as proprietorships or partnerships.

- Limited liability companies (LLCs) offer many of the benefits of corporate ownership, yet are, in general, taxed as partnerships.
- Congress gave legal authority to establish accounting principles for corporations that are registered on the exchange to the SEC.

8.2 Characteristics of Capital Stock

- **Par value**: Arbitrary value assigned to stock by the board of directors.
  - Par value multiplied by the number of shares issued represents the minimum amount of assets that must be retained, known as **legal capital.**
  - The par value represents the minimum amount of assets that must be retained in the company as protection for creditors, when multiplied by the number of shares of stock issued, and the maximum liability of the investors
- No-par stock may have a **stated value**. Like par value, stated value is an arbitrary amount assigned by the board of directors to the stock.
- **Other Valuation Terminology**
  - The price an investor must pay to purchase a share of stock is the **market value**.
  - Book value per share is measured by historical values

$$Book\ value\ per\ share = \frac{Assets - Liabilities}{\#\ of\ shares\ of\ stock\ owned\ by\ investors}$$

- **Stock**
  - States approve the maximum number of shares of stock corporations are legally permitted to issue, called **authorized stock**.
  - Authorized stock that has been sold to the public is called **issued stock**.
  - **Treasury stock** is when a corporation buys back some of its issued stock from the public.
  - **Outstanding stock** (total issued stock minus treasury stock) is stock owned by investors outside the corporation.

8.3 Common Stock vs. Preferred Stock

- **Common stock**: Basic class of corporate stock that carries no preferences as to claims on assets or dividends; certificates that evidence ownership in a company.
  - The greatest potential for rewards when a corporation prospers rests with common stockholders.
  - Common stockholders have the rights to:
    1) Buy and sell stock

2) Share in the distribution of profits
3) Share in the distribution of assets in the case of liquidation
4) Vote on significant matters that affect the corporate charter
5) Participate in the election of directors

- **Preferred stock**: Stock that receives some form of preferential treatment (usually as to dividends) over common stock; normally has no voting rights.
    - Preference as to assets in case of bankruptcy.
    - Preference as to dividends before common stockholders.
  - Preferred stockholders give up rights in other areas.
    - Preferred stockholders usually have no voting rights.
    - The amount of dividends is usually limited.

8.4 Accounting for Stock Transactions on the Day of Issue

- **Paid-in Capital in excess of par (or stated) value**: Any amount received above the par or stated value of stock when stock is issued.

Event	Balance Sheet	Income Statement	Stmt of Cash Flows
Issuing Par Value Stock	Cash, Com. Stk., PIC in Excess	NA	+ FA
Stock Classification	Cash, Com. Stk., PIC in Excess	NA	+ FA
Stock Issued at Stated Value	Cash, Pfd. Stk., PIC in Excess	NA	+ FA
Stock Issued with No Par Value	Cash, Com. Stk.	NA	+ FA

8.5 Treasury Stock

- **Why would a company buy its own stock**
  - To have stock available to give employees pursuant to stock option plans.
  - To accumulate stock in preparation for a merger or business combination.
  - To reduce the number of shares outstanding in order to increase earnings per share.
  - To keep the price of the stock high when it appears to be falling.
  - To avoid a hostile takeover.

Event	Balance Sheet	Income Statement	Stmt of Cash Flows	Transaction Type
Buy treasury stock	(Cash), -Treasury Stk.	NA	- FA	AU
Sale of treasury stock	Cash, -(Treasury Stk.), PIC from Treasury Stock	NA	+ FA	AS

- The Treasury Stock account is a contra stockholders' equity account. It is deducted from the other stockholders' equity accounts in determining total stockholders' equity.
- The original issue price and the par value of the stock have no effect on the Treasury Stock account.
- *PIC from Treasury Stock* is not reported as a gain. The sale of treasury stock is a capital acquisition, not a revenue transaction. Corporation do not recognize gains or losses on the sale of treasury stock.

8.6 Cash Dividends

- **Declaration date**: Date on which the board of directors actually declares a dividend.
- **Date of record**: Date that establishes who will receive the dividend payment: shareholders who actually own the stock on the record date will be paid the dividend even if the stock is sold before the dividend is paid. (No effect to the financial statements)
- **Payment date**: Date on which a dividend is actually paid.

Event	Balance Sheet	Income Statement	Stmt of Cash Flows
Declaration date	Div. Pay., (Ret. Earn.)	NA	NA
Payment date	(Cash), (Div. Pay.)	NA	- OA

8.7 Stock Dividends and Splits

- **Stock dividend**: Proportionate distribution of additional shares of the declaring corporation's stock. decrease the market value per share, make stock more affordable
  - Has no effect on:
    - total assets
    - ownership interest in assets
    - net income
    - the statement of cash flows
- **Stock split**: Proportionate increase in the number of outstanding shares; designed to reduce the market value of the stock and its par value. Stock splits have no effect on the dollar amounts of assets, liabilities, and stockholders' equity. They affect only the number of shares of stock outstanding. Doubling the number of shares will likely reduce the market price to slightly more then one-half of the pre-split value.

8.8 Appropriation of Retained Earnings

Appropriated retained earnings: Retained earnings restricted by the board of directors for a specific purpose (e.g., to repay debt or for future expansion); although a part of total retained earnings, not available for distribution as dividends.

Event	Balance Sheet	Income Statement	Stmt of Cash Flows
Appropriate retained earnings for future expansion	(Ret. Earn.), App. Ret. Earn.	NA	NA

Chapter 9 Financial Statement Analysis

Users of financial statement information include managers, creditors, stockholders, potential investors and regulatory agencies.

9.1 Methods of Analysis

9.1.1 Horizontal Analysis

- **Horizontal analysis (Trend analysis)**: Analysis technique that compares amounts of the same item over several time periods.
    - **Absolute amounts**: Dollar totals reported in accounts on financial reports that can be misleading because they make no reference to the relative size of the company being analyzed.
    - **Percentage analysis**: Analysis of relationships between two different items to draw conclusions or make decisions.

9.1.2 Vertical Analysis

- **Vertical analysis**: Analysis technique that compares items on financial statements to significant totals.

9.2 Ratio Analysis

Ratio analysis involves studying various relationships between different items reported in a set of financial statements.

- Creditors are interested in whether a company can repay its debts on time
- Creditors and stockholders care how the company is financed.
- Past earnings performance is analyzed

9.3 Measures of Debt-Paying Ability

9.3.1 Liquidity Ratios

Measures of short-term debt-paying ability.

- **Working capital**: measures the excess funds the company will have available for operations.

$$Working\ capital = Current\ assets - Current\ liabilities$$

- **Current ratio**: express the relationship between current assets and current liabilities as a ratio.

$$Current\ ratio = \frac{Current\ assets}{Current\ liabilities}$$

- **Quick ratio**: measures a company's immediate debt-paying ability.

$$Quick\ ratio = \frac{Quick\ assets}{Current\ liabilities}$$

Only cash, receivables, and current marketable securities (quick assets) are included.

- Accounts receivable turnover
- Average days to collect receivables
- Inventory turnover
- Average days to sell inventory

9.3.2 Solvency Ratios

def: Measures of a firm's long-term debt-paying ability.

- Debt-to-assets ratio
- Debt-to-equity ratio
- Number of times interest is earned
- Plant assets to long-term liabilities

9.4 Measures of Profitability

Profitability refers to a company's ability to generate earnings. Both management and external users employ profitability ratios to assess a company's success in generating profits and how these profits are used to reward investors.

9.4.1 Measures of Managerial Effectiveness

- **Net margin**: describes the percentage of each sales dollar remaining after subtracting other expenses, as well as cost of goods sold.

$$Net\ margin = \frac{Net\ income}{Net\ sales}$$

- Asset turnover ratio
- Return on investment (ROI)
- Return on equity (ROE)

9.5 Stock Market Ratios

- Earnings per share (EPS)
- Book Value
- Price-Earnings (P/E) Ratio
- Dividend yield
- Other ratios

9.6 Limitations of Financial Statement Analysis

- Different industries
- Changing economic environment
- Accounting principles

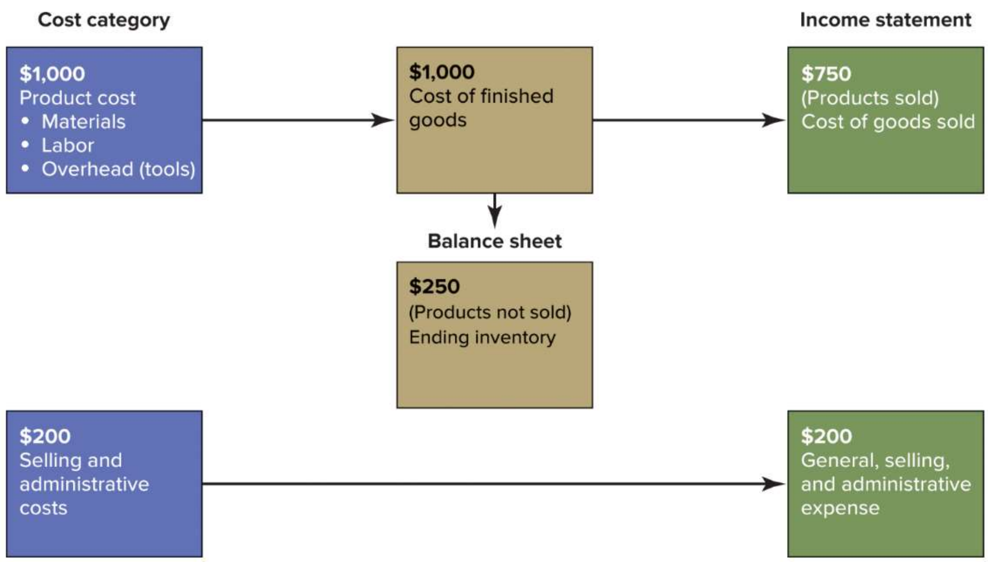
Chapter 10 An Introduction to Management Accounting

10.1 Differences between Managerial and Financial Accounting

- **Financial accounting**
  - Historically based and usually reported annually
  - Information is global and pertains to the company as a whole
  - Information is factual and is characterized by objectivity, reliability, consistency and accuracy
  - Provided to outsiders, including investors, creditors, government agencies, analysts, and reporters
  - Regulated by the SEC, FASB, and GAAP
- **Managerial accounting**
  - Estimate information bounded by relevance and timeliness
  - Local information and pertains to subunits of the organization
  - Includes economic and nonfinancial data
  - Provided to insiders
  - Reported continuously and has a current or future orientation

10.2 Product Costing in Manufacturing Companies

- **Components of Product Cost:** material, labor, overhead (other resources such as utilities and equipment consumed in the process of making the products).
- Finished goods inventory: Asset account used to accumulate the product costs (direct materials, direct labor, and overhead) associated with completed products that have not yet been sold.



Production wages/Depreciation on manufacturing equipment → Inventory → COGS

Selling and administrative salaries → Salaries expense

Depreciation on office furniture → Depreciation expense

- Costs that cannot be traced to products and services in a cost-effective manner are called **indirect costs.** The indirect costs incurred to make products are called **manufacturing overhead.**
- Cars for sales staff and general office supplies are SG&A cost and belongs to assets.
- The compensation for office personnel is SG&A cost and the compensation for production workers increase the assets and liabilities, no effect in the income statement.

10.3 Upstream, Midstream, and Downstream Costs in Companies

10.3.1 Manufacturing Companies

- **Upstream costs**: research and development, product design
- **Midstream costs**: direct materials, direct labor, manufacturing overhead
- **Downstream costs**: marketing, distribution, customer service

$$Sales\ revenue - COGS(midstream\ costs) = Gross\ margin$$

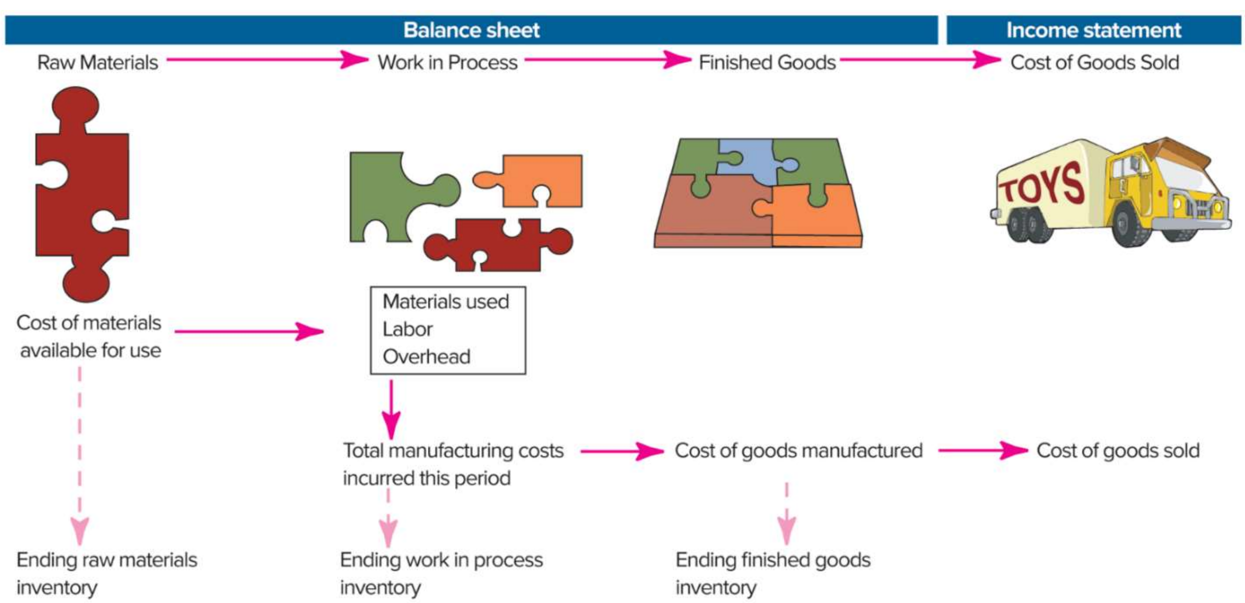
$$Gross\ margin - Upstream\ \&\ downstream\ costs = NI$$

10.3.2 Service and Merchandising Companies

The primary difference between manufacturing entities and service companies is that the finished products provided by service companies are consumed immediately. While merchandising companies frequently hold inventory, they do not make products they sell.

10.4 Schedule of Cost of Goods Manufactured and Sold

- Most manufacturing companies accumulate product costs in three distinct inventory accounts:



1) **Raw Materials Inventory**, which includes lumber, metals, paints, and chemicals that will be used to make the company's products;
2) **Work in Process Inventory**, which includes partially completed products;
3) **Finished Goods Inventory**, which includes completed products that are ready for sale.

- **Schedule of cost of goods manufactured and sold:** Internal accounting report that summarizes the manufacturing product costs for the period; its result, cost of goods sold, is reported as a single line item on the company's income statement.

10.5 Just-in-Time Inventory (JIT)

Inventory flow system that minimizes the amount of inventory on hand by making inventory available for customer consumption on demand, therefore eliminating the need to store inventory. The system reduces explicit holding costs including financing, warehouse storage, supervision, theft, damage, and obsolescence. It also eliminates hidden opportunity costs such as lost revenue due to the lack of availability of inventory.

Chapter 11 Cost Behavior, Operating Leverage, and Profitability Analysis

11.1 Fixed Cost Behavior

Fixed Cost Behavior	When Activity Increases	When Activity Decreases
Total fixed cost	Remains constant	Remains constant
Fixed cost per unit	Decreases	Increases

11.2 Operating Leverage

Business managers apply operating leverage to magnify small changes in revenue into dramatic changes in profitability. The lever managers use to achieve disproportionate changes between revenue and profitability is fixed costs.

- **Calculating percentage change:**

$$(\text{Alternative measure} - \text{Base measure}) \div \text{Base measure} = \%\text{change}$$

- **Risk and reward assessment**

  Risk refers to the possibility that sacrifices may exceed benefits. A fixed cost represents a commitment to an economic sacrifice. It represents the ultimate risk of undertaking a particular business project. Shifting the cost structure from fixed to variable reduces not only the level of risk but also the potential for profits. A risk can be avoided by substituting fixed costs in place of a variable cost.

- Variable costs do not offer operating leverage.

Variable Cost Behavior	When Activity Increases	When Activity Decreases
Total variable cost	Increases proportionately	Decrease proportionately
Variable cost per unit	Remains constant	Remains constant

11.3 Contribution Margin Approach

- **Contribution margin**: Difference between a company's sales revenue and total variable cost; represents the amount available to cover fixed cost and thereafter to provide a profit.

$$\text{Revenue} - \text{Variable costs} = \text{Contribution Margin}$$

$$\text{Contribution Margin} - \text{Fixed cost} = \text{Net income}$$

11.4 Measuring Operating Leverage Using Contribution Margin

$$\text{Magnitude of operating leverage} = \frac{\text{Contribution margin}}{\text{Net income}}$$

- **Cost Behavior Summary**

When Activity Level Changes	Total Cost	Cost per Unit
Fixed costs	Remains constant	Changes inversely
Variable costs	Changes in direct proportion	Remains constant

- **Mixed Costs (Semivariable Costs)**

$$\text{Total cost} = \text{Fixed cost} + (\text{Variable cost per hour} \times \text{Number of hours})$$

- Relevant range: Range of activity over which the definitions of fixed and variable costs are valid.

11.5 The Break-Even Point

- **Break-even point**: Point where total revenue equals total cost; can be expressed in units or sales dollars.

11.5.1 Equation Method

$$\text{Sales} - \text{Variable costs} - \text{Fixed costs} = \text{Profit (Net income)}$$

11.5.2 Contribution Margin per Unit Method

The contribution margin per unit is the sales price per unit minus the variable cost per unit.

$$\text{Break-even point in units} = \frac{\text{Fixed costs}}{\text{Contribution margin per unit}}$$

11.5.3 Sales Volume Necessary to Reach a Desired Profit

$$\text{Sales} - \text{Variable costs} - \text{Fixed costs} = \text{Profit}$$

$$\text{Sales volume in units} = \frac{\text{Fixed costs} + \text{Desired profit}}{\text{Contribution margin per unit}}$$

11.6 The Margin of Safety

$$\text{Margin of safety} = \frac{\text{Budgeted sales} - \text{Breakeven sales}}{\text{Budgeted sales}}$$

Chapter 14 Planning for Profit and Cost Control

14.1 The Planning Process

- Planning normally addresses three different time horizons:
    - **Short term planning**: the coming year.
    - **Intermediate-range planning**: 3-5 years.
    - **Long-range planning**: more than 5 years in the future.
- Three levels of planning
    - **Strategic planning** involves making long-term decisions such as defining the scope of the business, determining which products to develop or discontinue, and identifying the most profitable markets.
    - **Capital budgeting** focuses on intermediate-range planning and involves decisions such as whether to buy or lease equipment, whether to stimulate sales, or whether to increase company asset base.
    - **Operations budgeting** concentrates on short-term plans. A key component is the *master budget*.
- **Advantages of budgeting**
    - **Planning**: The budget formalizes and documents managerial plans.
    - **Coordination**: The budgeting process forces coordination among departments to promote decisions in the best interest of the company as a whole.
    - **Performance Measurement**: Comparing actual results to budget expectations provides a way to evaluate performance.
    - **Corrective Action**: Budgeting provides advance notices of potential shortages, bottlenecks, or other weaknesses in operating plans.
- **Participative budgeting**

  Budget technique that allows subordinates to participate with upper-level managers in setting budget objectives, thereby encouraging cooperation and support in the attainment of the company's goals.
- The master budget

  The **master budget** is a group of detailed budgets and schedules representing the company's operating and financial plans, and normally includes
    1) Operating budgets
    2) Capital budgets
    3) Pro forma financial statements: Budgeted financial statements prepared from the information in the master budget.

14.2 Sales Budget

Know how to calculate Section 2 when the expected Sales on Account receivable proportion is not 100% for the following month.

Hampton Hams
Sales Budget

				Pro Forma
Section 1: Projected Sales	Oct	Nov	Dec	Data
Cash Sales	\$ 40,000	\$ 48,000	\$ 57,600	
Sales on Account	120,000	144,000	172,800	\$172,800 (a)
Total Budgeted Sales	\$160,000	\$192,000	\$230,400	\$582,400 (b)
Section 2: Schedule of Cash Receipts				
Current Cash Sales	\$40,000	\$ 48,000	\$ 57,600	
Plus Collections of Accounts Receivable	0	120,000	144,000	
Total Budgeted Collections	\$40,000	\$168,000	\$201,600	

(a) Quarter-end accounts receivable balance on the balance sheet.
(b) Sales revenue on the income statement (sum of monthly amounts: \$160,000 + \$192,000 + \$230,400).