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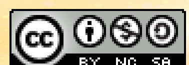
Accounting II

香港公開大學
THE OPEN UNIVERSITY OF HONG KONG



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Chapter 1 CONCEPTS & PRINCIPLES

1.1 THE DEVELOPMENT OF CONCEPTS AND PRINCIPLES

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The development of accounting concepts and principles is closely related to the economic growth of the United States, as businesses grew in size, and outsiders increased their demand for financial information. Accounting principles focus on the users of accounting information. Principles have developed over a long period of time, and are continuously subject to revision as information needs change. It is the responsibility of accounting professionals, teachers and accounting organizations to keep accounting principles up-to-date, relevant and useful.

1.2 FINANCIAL ACCOUNTING STANDARDS BOARD

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The FASB was set up with the purpose of developing accounting principles in 1973. Today it is the most influential accounting organization. The FASB is involved in solving reporting problems and developing solutions. When Statements of Financial Accounting Standards are released by the FASB, they quickly become gerenally accepted accounting principles (GAAP) pertaining to standards, assumptions, conventions or concepts. When it is difficult to understand accounting principles, interpretations are released which have the same authority as the standards.

1.3 INFLUENTIAL ACCOUNTING ORGANIZATIONS

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The FASB is the most influential accounting organization, but many other organizations exist that affect accounting practices. The Securities and Exchange Commission is the most influential government agency that regulates financial statement reporting. The IRS is involved in regulations related to income tax. IRS regulations often conflict with accounting principles, and as a result many businesses maintain two sets of records. Other organizations affecting accounting principles have less importance, and tend to specialize in a certain area of accounting.

1.4 BUSINESS ENTITY CONCEPT

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The business entity concept states that each business entity is a legal entity on its own. That's a business is different from the owner, the promoter or the investors. A business should have its own separate Account statement from the owner of the business. Basically,a business financial statement has the following major heading , Assets, Liabilities, and Owner's Equity which should be reported at as a specific date or period. It should be noted, however, that in some circumstances the investors or owners of a business are legally liable for debts or damages arising from the day to day operation of the business. This liability depends upon the legal form of the business. In the event an individual owns more than one unrelated business, each business must also be treated as a separate entity.

1.5 GOING CONCERN CONCEPT

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The going concern concept is based on the belief that a business will operate indefinitely. Assets purchased for long-term use,should be recorded at historical cost even if the market value is above or below the original cost. When expenses are prepaid, they should be listed as assets. In the event a business is near the end of its life, this information should be disclosed in the financial statements of a company. Accounting procedures should change to reflect the special needs of a business in liquidation.

1.6 OBJECTIVITY

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All information must be maintained objectively, which means that it is free of bias and subject to verification. Objectivity is closely tied to reliability. Objective evidence consists of anything that can be physically verified such as a bill, check, invoice, or bank statement. In the event something cannot be supported objectively, a number of subjective methods are used to develop an estimate. The determination of items such as depreciation expense and allowance for doubtful accounts are based on subjective factors. Still even subjective factors are influenced by objective evidence such as past experience.

1.7 STABLE-DOLLAR UNIT OF MEASUREMENT

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All accounting transactions are recorded in terms of monetary value. The use of a monetary value makes it easy to compare financial data, and it is the common factor of all business transactions. During changing price levels, monetary value does not always properly reflect true economic conditions. The use of current cost data or constant cost data can be used to adjust price levels to a current price range. This data is reported as supplementary information and the financial statements are prepared with the assumption of a stable dollar.

1.8 ACCOUNTING PERIOD

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Financial reports should be issued by businesses at least yearly. Most corporations issue reports quarterly, as well. Timely information provided by financial reports is essential for investors, creditors, industry analysts, management and government agencies. Periodic income is difficult to determine because of the many adjustments that are necessary. The accuracy of financial reports depends on subjective factors such as an estimation of depreciation and inventory costing.

1.9 MATCHING REVENUES AND EXPENSES

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For most businesses, recognition of revenue is based on when the revenue has been realized, that is, when a price has been agreed with the purchaser and the seller has completed all obligations. Few businesses rely on collection or receipt of payment. For some businesses, revenue recognition is spread over time as in the installment or time-of-completion method. All costs directly associated with a given revenue must be matched with that revenue. Some expenses are not associated with specific revenue items but with a given time period. Expenditures, for instance for plant asset, must be allocated over their useful life and remain as unexpired cost or assets.

1.10 ADEQUATE DISCLOSURE

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All relevant and material facts which affect the reliability and comparability of financial statements must be disclosed. This usually relates to

1. accounting methods used,
2. changes in accounting estimates,

3. contingent liabilities,
4. performance of business segments, and
5. any significant event subsequent to the end of the financial period.

1.11 CONSISTENCY CONCEPT

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The purpose of the consistency concept is to assure that financial statements can be easily compared period to period, and therefore to encourage that the same accounting principles be used from year to year. When changes in accounting methods are necessary, such changes should be disclosed and the reasoning explained in notes to financial statements. If businesses were allowed to change accounting principles whenever they wished, the amount of net income reported could continuously be manipulated. Different accounting methods may be used for different business segments.

1.12 MATERIALITY CONCEPT

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The materiality concept proposes paying attention to important events and ignoring insignificant accounting items. The extra effort required to process insignificant items is not cost effective. The concept of materiality also suggests that small asset purchases or improvements should be initially written off as an expense. Definitive rules exist on whether an accounting element is significant or insignificant. Therefore decisions are based on both objective and subjective criteria.

1.13 CONSERVATISM

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Conservatism proposes that the information in financial statements should not foster undue optimistic expectations and bends toward being prepared for the worst situation. When a policy of conservatism is followed, assets and income tend to be understated. For instance, depreciation expenses are often accelerated causing lower book values for plant assets.

1.14 REVIEW OF CONCEPTS AND PRINCIPLES

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The following concepts and principles have been covered:

1. business entity,

2. going concern,
3. objective evidence,
4. unit of measurement,
5. accounting period,
6. matching revenues and expenses,
7. adequate disclosure,
8. materiality,
9. consistency, and
10. conservatism.

1.15 MATCHING REVENUES AND EXPENSES

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Recording revenue upon receipt of payment is used in cash basis accounting and does not conform to generally accepted accounting principles.It has the advantage of not requiring an estimate of allowance for doubtful accounts. Professional services such as consultants, doctors, dentists and lawyers use this method.

1.16 INSTALLMENT METHOD

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The installment method is used when collection of payments (in excess of the downpayment) extends over several years and is uncertain. It offers a saving from income tax postponement. Depending on the contract, the seller or the buyer has title to the goods.

1. A gross profit percentage is determined on the entire contract by subtracting the cost of goods sold from the sale price, and dividing by the sale price.
2. Each year the gross profit recognized is calculated by multiplying the amount collected by the gross profit percentage.

1.17 PERCENTAGE-OF-COMPLETION METHOD

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The percentage-of-completion method is recommended for businesses involved in long-term projects or contracts, such as construction firms. In such circumstances, revenue is recognized periodically throughout the life of the project.

1. An initial profit is estimated based on the contract price and anticipated future costs.
2. The total revenue is spread evenly over the years or in proportion to the annual estimated costs. The actual costs incurred during each time period are subtracted from revenue.
3. In the final year the actual remaining profit is recognized.

For example, a person sold a $500,000 machine with an upfront payment of $100,000 and payments of $80,000 over 5 years. The accounting would be as follows:

GENERAL JOURNAL YEAR X1

Date		Title and Account explanation	Debit	Credit
Jan	01	ACCOUNTS RECEIVABLE	$500,000	
Jan	01	INSTALLMENT SALES		$500,000
Jan	01	COST OF MACHINE SOLD	$300,000	
Jan	01	INVENTORY		$300,000
		(To record machine sale)		

GENERAL JOURNAL YEAR X1

Date		Title and Account explanation	Debit	Credit
Jan	15	ACCOUNTS RECEIVABLE		$180,000
Jan	15	CASH	$180,000	
		(To record upfront and 1st payment of machine)		

GENERAL JOURNAL YEAR X1

Date		Title and Account explanation	Debit	Credit
Dec	31	INSTALLMENT SALES	$500,000	
Dec	31	COST OF MACHINE SOLD		$300,000
Dec	31	DEFERRED GROSS PROFIT		$200,000
		(To record gross profit in year X1)		

GENERAL JOURNAL YEAR X1

Date		Title and Account explanation	Debit	Credit
Dec	31	DEFERRED GROSS PROFIT	$72,000	
Dec	31	NET GROSS PROFIT		$72,000
		(To record Net profit in year X1)		

- Gross profit percent: (INSTALLMENT SALES-COSTS)/INSTALLMENT SALES. (500,000-300,000)/500,000 = 0,4.
- Net profit: AMOUNT COLLECTED*GROSS PROFIT PERCENT. $180,000 ($100,000 upfront payment + $80,000 1st payment) * 0,4 (gross profit percent) = $72,000.

GENERAL JOURNAL YEARS X2 TO X5

Date		Title and Account explanation	Debit	Credit
Dec	31	DEFERRED GROSS PROFIT	$32,000	
Dec	31	NET GROSS PROFIT		$32,000
		(To record Net profit in years X2 to X5)		

For years X2 to X5, the same method is applied to remaining payments.

The accounting of a $100,000 construction contract under percentage-of-completion method, would be like this.

GENERAL JOURNAL YEAR X1

Date		Title and Account explanation	Debit	Credit
Dec	31	CONSTRUCTION IN PROGRESS	$35,000	
Dec	31	ACCOUNTS PAYABLE		$35,000
		(To record expenses in year X1)		

GENERAL JOURNAL YEAR X1

Date		**Title and Account explanation**	Debit	Credit
Dec	31	ACCOUNTS RECEIVABLE	$55,000	
Dec	31	PROGRESS BILLINGS		$55,000
		(To record earnings in year X1)		

GENERAL JOURNAL YEAR X2

Date		**Title and Account explanation**	Debit	Credit
Dec	31	CONSTRUCTION IN PROGRESS	$20,000	
Dec	31	ACCOUNTS PAYABLE		$20,000
		(To record expenses in year X2)		

GENERAL JOURNAL YEAR X2

Date		**Title and Account explanation**	Debit	Credit
Dec	31	ACCOUNTS RECEIVABLE	$45,000	
Dec	31	PROGRESS BILLINGS		$45,000
		(To record earnings in year X2)		

The revenues are recorded according to the job percent of completion. In this example, the $100,000 contract was completed in two time periods: 55% in year X1 and 45% in year X2. The cost incurred during each time period must be recorded and subtracted from revenues in order to get the Net profit (or loss) for the period.

Chapter 2 PARTNERSHIPS

2.1 INTRODUCTION TO PARTNERSHIPS

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The Uniform Partnership Act has been adopted by most states, and its purpose is to provide basic laws governing the formation and the operation of partnerships. The combination of entrepreneurial talents, experience, and capital make the formation of partnerships attractive. Small businesses and professional services typically enter into partnership agreements. When a partnership is formed, the articles of partnership stipulate in particular how profits and losses are to be divided, the responsibilities of partners, the initial contributions, the name and the nature of the business.

2.2 INTRODUCTION TO PARTNERSHIPS

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Major characteristics of partnerships are:

1. Partnerships have a limited life.
2. Partners have unlimited personal liability (unless they are silent partners in a limited partnership in which case their liability is limited to the amount of their investment).
3. All full partners have the right to use partnership property.
4. All full partners are bound by contracts entered by other partners.
5. All partners share in profits and losses.
6. A partnership is a non-taxable entity. Income taxes are only paid by partners to the extent of their share of profits. Information forms must, however, be sent annually to the Internal Revenue Service indicating the income of the business and the payments received by the partners.

2.3 ADVANTAGES & DISADVANTAGES OF PARTNERSHIPS

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The following are advantages of partnerships:

1. capital, entrepreneurial skills and experience are combined,
2. easy and inexpensive formation,
3. little government regulation, and
4. non-taxable entity.

The following are disadvantages of partnerships:

1. mutual agency,

2. unlimited liability,
3. limited life, and
4. limited capital raising abilities.

2.4 ACCOUNTING FOR PARTNERSHIPS

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Accounting for partnerships is similar to other forms of business organization. The same accounts are used, with the exception of capital accounts. Partnerships have separate drawing and capital accounts for each partner. Income is distributed differently from other forms of business organizations. Since a partnership has a limited life, special transactions need to be performed upon the death or withdrawal of a partner, dissolution and liquidation.

2.5 INVESTING IN PARTNERSHIPS

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Separate entries are required for each member that joins a partnership. A monetary value is assigned to all non-cash assets contributed by each partner. Only receivables which are collectible should be recorded in the partnerships books. Any liability entered into by members of the partnership becomes a liability of the newly formed business. To record the initial investment, entries are performed to debit assets and credit liabilities. The net difference between assets and liabilities is a credit to the capital account of the partner.

2.6 DIVIDING NET PROFITS OR LOSSES

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All members of a partnership are entitled to share profits. If no provisions are set forth in the articles of partnership as to how profits or losses are to be divided, they must be shared equally. Partners commonly receive a salary and an interest allowance. If net income remains after all allowances have been satisfied, the remaining income is split according to agreed proportions. A loss is shared in the same proportions.

2.7 FINANCIAL STATEMENTS FOR PARTNERSHIPS

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Partnerships must provide information on how net income was distributed among partners. This information can be combined with the balance sheet or the income statement. If desired, it can also be reported separately. The changes of a partner's

equity can be found in the statement of owners' equity, which reflects any investment withdrawal or income distribution. The ending capital balance represents the owners' equity at the end of an accounting period.

2.8 ADMITTING NEW PARTNERS

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Partners can be admitted into a partnership by either 1) purchasing an interest of the firm from a current partner, or 2) contributing assets to the business. When a partner purchases an interest in a business, only the capital accounts change. When a new partner contributes assets to a business, both assets and owners' equity increase. When a new partner contributes assets, current partners should assign a fair market value to the asset. In the event an asset is improperly valued, and is reevaluated at a later date, the partners divide an increase or a decrease among themselves.

2.9 NEW PARTNERS AND GOODWILL

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When a new partner is admitted, the profitability of a partnership often increases. Either the new partner or the former partners may be entitled to a bonus or goodwill. The bonus or goodwill is determined by bargaining between members of a partnership. Goodwill is recorded as an asset, and is credited to the proper capital accounts.

2.10 WITHDRAWAL OR DEATH OF PARTNER

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The withdrawal or death of a partner dissolves a partnership. A partnership can operate undisturbed only if the remaining partners agree to purchase the withdrawing partner's interest. In the event of the death of a partner, a stipulation in the partnership agreement may allow a business to operate for a period of time until assets are transferred to the deceased's estate. When a withdrawing partner's assets are bought out by existing partners, only capital accounts are effected.

General Journal

Date	Account title and explanation	Post ref.	Debit	Credit
	FGSDFG			
	FDSAF			
	DFSAF			
	FDSA			

FDAS

If a partner is paid from assets of the business, the result will be a decrease in asset and capital accounts.

General Journal

Date Account title and explanation Post ref. Debit Credit

2.11 LIQUIDATING A PARTNERSHIP

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When a partnership liquidates, the following occurs:

1. assets are sold,
2. creditors are paid, and
3. cash is distributed to partners.

Difficulties arise because the proceeds from the sale of assets rarely equal the value stated in the books of the partnership. Gains or losses on realization are recorded to the Gain and Loss on Realization account. The net gain or loss represents a change in equity, and is divided among partners according to the income-sharing agreement.

Chapter 3 CORPORATIONS

3.1 INTRODUCTION TO CORPORATIONS

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A corporation is an legal entity created by state law. It has a distinct and separate existence from the individuals who created it, and those who control its operations. Corporations are commonly classified as profit or nonprofit, and public or nonpublic. A profit corporation's survival depends upon its ability to make profits. A not-for-profit corporation relies on donations and grants. Public corporations issue stock that is widely held and traded. Shares of a nonpublic corporation are usually held by a small number of individuals. Regardless of the form or purpose of corporations, all must be created according to either state or federal statutes.

3.2 CHARACTERISTICS OF A CORPORATION

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A corporation has the ability to enter into contracts, incur liabilities, and buy, sell, or own assets in its corporate name. These provisions can be found in the charter or articles of incorporation. Ownership of a corporation is divided into shares of stock. Stocks can be issued in different classes. All shares of stock in the same class have identical rights and privileges. The buying and selling of shares does not effect the business activities of the corporation. Shareholders' liability is limited to the amount they invested.

3.3 CHARACTERISTICS OF A CORPORATION

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The corporation is subject to considerable more regulation than other forms of business organization. Corporations are also subject to greater taxes. Earnings are taxed before they are distributed to shareholders, and again when shareholders report them on their individual tax returns. The IRS does under certain conditions allow a corporation to be taxed in a manner similar to a partnership, provided it has a small number of shareholders. All corporations are subject to federal income taxes. The payment of state income taxes depends upon where the corporation was incorporated and in which states it conducts business.

3.4 ORGANIZATION OF A CORPORATION

ORGANIZATIONAL STRUCTURE OF A CORPORATION

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1. Shareholders of a corporation elect the board of directors.
2. The board of directors are responsible for determining corporate policies and electing officers.
3. Officers are responsible for operations and hiring employees. When shareholders are not pleased with the performance of the board of directors, they can elect new directors.

3.5 ADVANTAGES/DISADVANTAGES OF CORPORATIONS

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The major advantages of corporations as a form of business are:

1. limited liability of shareholders,
2. large capital formation,
3. ease of transfer of ownership,
4. continuity of existence.

The disadvantages of corporations are:

1. double taxation of profits,
2. possible conflicts between management and shareholders,
3. government regulations.

3.6 SHAREHOLDERS' EQUITY

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The shareholders' equity (that is, owners' equity of a corporation) consists of primarily paid-in capital and retained earnings. Paid-in capital represents the funds paid for shares of stock. When more than one class of stock is issued, separate paid-in capital accounts are maintained. The retained earnings account should normally have a credit balance, and it represents past net income that has been accumulated by the corporation. Dividends are paid out of retained earnings resulting in debit to retained earnings account. If the retained earnings account balance is itself a debit, a deficit has been incurred by the corporation, i.e. losses in excess of profits.

3.7 CHARACTERISTICS OF STOCK

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The number of shares of stock a corporation may issue is stated in the articles of incorporation. Shares can be issued with or without par. A par value does not reflect the true value of the stock, it is merely an arbitrary monetary figure. The par value of a stock can be found on the stock certificate which also serves as evidence of ownership. Most states require that a stock be assigned a stated value. It is the responsibility of the board of directors to either assign a par or stated value to shares of stock.

3.8 CHARACTERISTICS OF STOCKS

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Shares of ownership in a corporation are capital stock. Shares owned by shareholders are referred to as stock outstanding. The creditors of a corporation have no legal claim against shareholders. The law requires, however, that a specific minimum contribution of shareholders be held by the corporation as protection for creditors. The percentage is determined by state laws, and is known as legal capital. The percentage of investment held as legal capital tends to be low, similar to the par or stated value of the stock.

3.9 CLASSES OF STOCK

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All shareholders of a corporation are entitled to basic rights. These rights differ according to classes of stock. Common stock possesses most of the voting powers, while preferred stock has preferential rights to a share in the distribution of earnings, and often has first claim to assets in the event of liquidation. Each common stoch shareholder also has a preemptive right to any new issue. The specific rights of a stock are found in either the charter or the stock certificate. The board of directors decides if earnings should be distributed to shareholders as dividends. Distribution of dividends is not guaranteed, and the decision is usually based upon the needs of a corporation.

3.10 TYPES OF PREFERRED STOCK

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Preferred shareholders are assured of receiving dividends before any common shareholder. When preferred stock is participating, preferred shareholders can share

in excess profits with common shareholders. Nonparticipating preferred stock is limited to a fixed dividend. When a preferred stock is cumulative, the preferred shareholder is entitled to all dividend payments in arrears before any common shareholder can be paid a dividend. A preferred stock that is both cumulative and participating is the most attractive to investors.

3.11 ISSUANCE OF STOCK

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The entries to record investments of shareholders are similar to most other forms of business. A cash or an asset account is debited, and a capital account is credited. A corporation must keep detailed records of shareholders investments if it plans to pay the correct amount of dividends to the appropriate individuals. It also uses these records to sent shareholders financial reports and proxy forms. When corporations issue stock, it rarely sells at its par value. The price of a stock is influenced by many factors.

3.12 PREMIUMS AND DISCOUNTS ON STOCK

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When stock is issued at a higher value than par, a premium on stock account is credited. If a stock is issued below par, a discount on stock account is debited. Under certain circumstances, a corporation may decide to return a premium as a dividend at a later date. When a stock is issued at a discount, shareholders may be liable up to the amount of the discount in the event of a liquidation. The discount on capital account is classified as a contra paid-in capital account, and is subtracted from other capital accounts when determining the total shareholders' equity.

3.13 STOCK SUBSCRIPTION

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When a corporation does not want to sell its own shares, it can sell its stock to an underwriter who resells it at a higher price to earn a profit. The advantages of issuing stock through an underwriter are that it relieves a company from marketing tasks, and the company may even receive funds before shares are sold. Stock can be subscribed at par, below par, or above par.

3.14 STOCK SUBSCRIPTION

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When a company sells its stock directly to investors, a Stock Subscription Receivable account is debited for each sale. A Stock Subscribed account is credited upon the initial offering of the subscription. When a subscription has been paid in full, Stock Subsdcribed account is debited and the appropriate stock account credited. At the same time the stock certificates are issued to shareholders. To keep track of subscription payments a subscribers ledger shows individual accounts. Paper stock certificates are currently phased out and replaced by computerized entries.

3.15 TREASURY STOCK

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Treasury stock represents stock that has been issued, subscribed in the past, and later repurchased from shareholders. Motives for repurchasing shares may be to provide employees with stock bonuses, use these stocks for employee savings plans, or to boost the market value of the stock. If treasury stock is reissued or cancelled, it is no longer treasury stock. The accounting method most commonly employed to record the purchase and sale of treasury stock is the cost basis. The purchase or sale price is used to record the entry with no consideration given to par value or original issue price. When the stock is resold a Paid-In Capital from Sale of Treasury Stock account is used to record any premiums or discounts on sales.

3.16 EQUITY PER SHARE

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Equity per share represents the book value of a share (not its market value). Equity per share is calculated by dividing total shareholders' equity by the number of shares outstanding. In the event more than one type of stock has been issued, the equity must be allocated among the different types. The presence of preferred stock reduces the amount of equity available to common stock shareholders. The equity per share has an insignificant influence on the market price of a stock: earnings per share, dividend payments, and future expectations are far more influential.

3.17 ORGANIZATION COSTS

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Any expenditure incurred when the corporation is formed, is charged to the Organization Costs account. This account is an intangible asset that has no value in

the event the corporation is liquidated. The Internal Revenue Code allows Organization Costs to be amortized, but this must be done within five years. Organization Costs are usually not large, and their amortization has little effect on net income.

Chapter 4 CAPITAL

4.1 PAID-IN CAPITAL

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The paid-in capital section of a balance sheet provides information on the type of shares issued, and whether or not any premiums or discounts was present. Also reported are the number of shares authorized and the number of shares issued. There are many acceptable variations in reporting shareholders' equity on the balance sheet. Premium paid-in capital accounts may be combined into a single heading called additional paid-in capital or listed separately. Any significant changes that occur to the paid-in capital section of the balance sheet should be disclosed in financial statements.

4.2 CORPORATE EARNINGS AND INCOME TAXES

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Net income or loss is determined for corporations in a similar fashion to other business enterprises. Corporations are required to make advance quarterly payments for income taxes. These payments are only estimates, and adjustments are necessary at the end of the year. If advance payments exceed the tax liability, a receivable account is debited. If tax liabilities exceed advance payments, a payable account is credited. Tax authorities are permitted to review income tax returns up to three years after they have been filed. Because income tax expenses are determined on net income, they are usually the last expense reported on the income statement.

4.3 ALLOCATING INCOME TAXES BETWEEN PERIODS

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The taxable income of a corporation is usually calculated differently for tax and financial statement purposes. These differences in reporting can be permanent or due to timing. A permanent difference is caused by a different treatment of a revenue or an expense. For example, certain types of revenue may not be taxable, and certain allowable deductions may not be actual expenses. Timing differences commonly occur when sales are made on an installment basis, or revenue is earned from long-term projects, and when the depreciation methods use for tax and financial statement purposes differ. Corporations in such circumstances tend to accelerate expenses, and defer income to future years when reporting for tax purposes. The opposite approach is taken when accounting for financial statements.

4.4 UNUSUAL ITEMS IN FINANCIAL STATEMENTS

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Unusual items are not commonly reported on the income statement. Unusual items are for instance: prior year income adjustments, extraordinary gains or losses, effects of a change in accounting methods, and gains or losses from discontinued operations.

4.5 PRIOR PERIOD ADJUSTMENTS

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Minor accounting errors are usually caused by the use of estimates. These errors are considered to be normal and are also recurring. The effects of these errors should be reflected in the accounts of the current period. Material errors are caused by mathematical errors, improper use of accounting principles, misuse of facts, etc. The treatment of material errors depends on when they have been discovered.

4.6 PRIOR PERIOD ADJUSTMENTS

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When a material error is discovered in the period it occurred, the following procedures should be followed: 1) post the error in a journal entry, 2) post the correct journal entry, and 3) determine the debit and credit adjustments needed to bring the correct balance to accounts. When material errors are not discovered in the same period they have occurred, an adjustment must be made to the retained earnings balance.

4.7 PRIOR PERIOD ADJUSTMENTS

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Prior period adjustments are recorded immediately after the beginning balance of retained earnings. Prior period adjustments are made net of any income tax. Past balance sheets and income statements should be corrected. Actual prior period adjustments are rare due to the strict internal controls of accounting systems and audits performed by independent accountants.

4.8 DISCONTINUED OPERATIONS

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When a segment of a business is disposed, a gain or loss may be realized. This gain or loss should be reported on the income statement under discontinued operations. It is customary to report the results of continuing operations first. In addition to gain or loss information, the following should also be disclosed in the financial statements: the disposal date, which assets and liabilities were effected, the manner of disposal, and the identity of the segment.

4.9 EXTRAORDINARY ITEMS

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Extraordinary items are events or transactions which are unusual in nature and do not occur frequently. Gains and losses from disposal of plant assets or selling investments do not qualify as extraordinary because they are considered to be normal business activities. Two distinct approaches are used for extraordinary items. The all-inclusive theory recommends that both ordinary and extraordinary items be included in the income statement; it is the most commonly followed. The current operating performance theory recommends that only normal, ordinary, and recurring items be listed on the income statement, and extraordinary items be shown in retained earnings.

4.10 CHANGES IN ACCOUNTING PRINCIPLES

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When a company changes one of its accounting methods, the change must be disclosed in the financial statements of a company. The reasoning for the change, the effect on net income, and the justification of the change all should be disclosed. The disclosure should indicate the cumulative effect of the change on net income of prior periods and the current period. The cumulative effect on income is usually found listed after extraordinary items.

4.11 EARNINGS PER COMMON SHARE

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Although absolute amounts are very helpful in evaluating a company's performance, it is not useful in comparing companies of different sizes. Earnings per common share is determined by dividing net income by the number of outstanding common shares. If

there are any outstanding preferred stock, their dividends should be subtracted from net income before calculating EPS.

4.12 EARNINGS PER COMMON SHARE

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Many corporations issue both debt and equity instruments. When bonds and preferred stock have conversion privileges, two EPS figures should be calculated. The first (called primary EPS) assumes no conversion has taken place, and the other (called fully diluted EPS) assumes all conversion privileges are used. EPS information can be found at the bottom of an income statement. It considers both activities from continuing operations and nonrecurring items.

4.13 RETAINED EARNINGS APPROPRIATIONS

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Portions of retained earnings which are restricted to specific uses, are called appropriations or reserves. The board of directors commonly makes decisions regarding appropriations, or they may be required by laws or contracts. When an appropriation is called for, retained earnings is debited and an appropriation account credited. Appropriations are commonly classified as either contractual or discretionary.

4.14 RETAINED EARNINGS APPROPRIATIONS

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Contractual appropriations restrict the use of retained earnings under specified conditions. For example, common stock dividends will not be paid unless all bondholders receive their interest payments. Discretionary appropriations are voluntary decisions. Most appropriation accounts are not related to specific assets. A funded appropriation is commonly accompanied by a specific current asset.

4.15 RETAINED EARNINGS APPROPRIATIONS

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The purpose of appropriations should be indicated in the balance sheet. Losses should never be posted to an appropriation account, but to a special loss account. The retained earnings statement is divided into two sections: 1) appropriated funds and 2) unappropriated funds. The last figure on the retained earnings statement shows the ending balance of the retained earnings statement.

4.16 CASH DIVIDENDS

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Before cash dividend payments can be made, three prerequisites must be met:

1. the board of directors declares them,
2. a sufficient cash balance is on hand, and
3. a sufficient unappropriated retained earnings balance exists.

The following three dates are associated with any declaration: 1) declaration date, 2) date of record, and 3) date of payment. The declaration date is when the board of directors decides to make cash dividend payments. The date of record is when a list is compiled of owners of shares. The date of payment is when checks are mailed out to all shareholders.

4.17 CASH DIVIDENDS

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A declaration of a cash dividend becomes a liability at the date of declaration and requires a journal entry. Cash dividends are debited and cash dividends payable credited. On the date of payment, cash dividends payable is debited and cash credited.

4.18 CASH DIVIDENDS

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Corporations which have a stable dividend record are very attractive to investors seeking a steady flow of investment income. Dividends can be paid out on a quarterly, semi-annual or annual basis. In years when earnings are higher than normal, common shares may be eligible to receive an extra dividend. The declaration of dividends is at the sole discretion of the board of directors. In the event cumulative preferred stock exists and dividends are in arrears, no dividend payments can be made to common shareholders until preferred shareholders have received all dividends in arrears.

4.19 STOCK DIVIDENDS

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Stock dividends are usually issued to holders of common stock, and are in the form of common stock. No cash or other corporate asset is distributed through stock dividends. A stock dividend alters the capital structure of a company by transferring accumulated retained earnings to paid-in capital. Stock dividends are commonly used

by corporations which wish to use their funds for expansion purposes instead of cash dividends. The issuance of stock dividends does not effect asset, liability, or the total stockholders' equity balance of a company.

4.20 STOCK SPLITS AND SPECIAL DIVIDENDS

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Stock splits reduce the par or stated value of a corporation's common stock, by issuing a proportionate number of additional shares. The purpose of stock splits is to reduce the market value of shares and encourage more investors to purchase shares of stock. Shareholders do not lose any equity or fractional share of company ownership. Stock splits do not change any asset, liability, or shareholders' equity balances of a corporation. No journal entry is needed for stock splits.

4.21 STOCK SPLITS AND SPECIAL DIVIDENDS

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Liquidating dividends are paid out of paid-in capital accounts. These dividends are most commonly issued when a company reduces its operations or closes down completely. Stock that has been issued and repurchased by a corporation, i.e. treasury stock, receives no cash dividends. Stock dividends can be based on either the number of shares issued or the number of shares outstanding. The same option is available for stock splits.

Chapter 5 LIABILITIES

5.1 CORPORATE FINANCING OPTIONS

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Corporations can raise funds by issuing common stock, preferred stock, long-term bonds or notes. The board of directors is responsible for choosing financing options. A great number of factors influence financing options such as the ability to raise funds, interest rates, tax considerations, and investor income return expectations. The type and mix of securities issued have an important effect on net income and earnings per share.

5.2 INTRODUCTION TO BONDS

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Each time a corporation issues a bond, a contract, known as the bond or trust indenture, is executed. The principal or face value of the bond, when interest payments are due and the interest rate are stated in the bond indenture. Bonds differ by the following characteristics: transferability of ownership, issuance and maturity dates, conversion provisions, redemption rights, and whether they are secured or not.

5.3 USING PRESENT VALUE

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Present value is used for both financial analysis and to make business decisions. The concept of present value indicates that the value of a dollar today is not the same as the value of a dollar in the future. When a bond is issued two obligations arise: 1) periodic interest payments and 2) paying the the face amount of the bond at maturity. The selling price of a bond is determined by the present value of the combination of these two obligations.

5.4 BONDS & INTEREST RATES

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The interest rate of a bond is stated in the bond indenture. That interest rate, known as contract or coupon rate, is often different from the prevailing market interest rates on the day the bond is issued. When the market or effective rate is higher than the coupon rate of the bond, the bond will be sold at a discount. When the market or

effective rate is lower than the coupon rate, the bond will be sold at a premium. Bonds are rarely sold at their face value due to interest rate changes.

5.5 RECORDING BOND ISSUES

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Bonds can be issued at face value, at a discount, or at a premium. When bonds are issued at face value, cash is debited and bonds payable credited. When bonds are issued at a discount, the discount on bonds payable account is debited for the amount of the discount. When bonds are issued at a premium, the premium on bonds payable account is credited for the amount of the premium. The present value of a bond is determined by adding the present value of the face value of the bond and the present value of its interest payments. The present value can be calculated using formulas, present value charts, financial calculators or computer programs.

5.6 AMORTIZATION OF DISCOUNTS & PREMIUMS

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The bond premium or discount is amortized to interest expense until the bond is redeemed or matures. There are two amortization methods: the straight-line method and the interest method. The straight-line method amortizes identical interest expenses to each period. The interest method uses a constant rate of interest. The amortization of premiums decreases interest expense, while the amortization of discounts increases interest expense.

5.7 BOND SINKING FUNDS

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Bond sinking funds are designed for the purpose of being able to meet debt obligations when they mature. Cash in these funds is invested in income producing securities. The income earned from investments and cash deposits are managed so that it will equal the amount due at maturity. A company has the option to manage its own bond sinking fund or appoint a trustee.

5.8 APPROPRIATION FOR BONDED INDEBTEDNESS

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Appropriations for bonded indebtedness restrict a company's ability to pay dividends to shareholders. It requires that part of retained earnings be set aside for the repayment of bonds. Appropriations do not have a direct relationship to the bond

sinking fund. Whenever an appropriation is made, Retained Earnings is debited and Appropriation for Bonded Indebtedness credited.

5.9 BOND REDEMPTION

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Bonds are redeemed most commonly when the market rate of interest declines after they have been issued. A company can usually realize a saving by redeeming its bonds and issuing new bonds with lower interest rates. Only callable bonds have the feature which allows the company to redeem them at a stated price within a specific time period. All other bonds can be purchased on the open market. It is very unlikely, however, that an entire issue can be purchased in this manner.

5.10 BOND REDEMPTIONS

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When a company is able to redeem bonds at a price above the carrying amount, a loss is incurred. This requires an entry that debits Bonds Payable and a Loss on Redemption of Bonds, and credits Cash. If any unamortized premium remains, this amount must also be debited. Unamortized premiums increase the cash payment required for bond redemptions. If a bond is redeemed at a price below the carrying amount, a gain has been realized. The Gain on Redemption of Bonds account is credited in such circumstances.

5.11 BONDS PAYABLE & THE BALANCE SHEET

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Bonds payable are shown as long-term balance sheet liabilities, unless they mature in a year or less. If current assets are expected to be used to retire the bonds, a Bonds Payable account should be listed in the current liability section. If the bonds are to be retired and new ones issued, they should remain as a long-term liability. All bond discounts and premiums also appear on the balance sheet.

5.12 BONDS PAYABLE & THE BALANCE SHEET

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Different bond issues should be maintained in separate accounts. When a Bonds Payable account is present on the balance sheet, it can be broken down into different issues or consolidated into a single balance. In the latter case, a schedule or note should disclose the details of the bond issues. It is also customary to provide a description of bonds issued in financial statements. The effective interest rate,

maturity date, terms, and sinking fund requirements are commonly indicated in accompanying notes to financial statements.

5.13 BOND INVESTMENTS

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Investments in bonds or notes should be listed under investments in the balance sheet. They should be kept separate from marketable securities. Businesses commonly invest in bonds because they have idle funds available. Corporate bonds can be purchased through a broker or directly from the issuing company. Purchasing from a company is cheaper because commission fees are absent.

5.14 BOND INVESTMENTS

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Information on bonds can be obtained from the financial section of most major newspapers. Bond interest rates, volume of sales, closing price, the low and high price of the day, and the maturity date can all be found. Prices of bonds are quoted as a percentage of a bond's face value. The cost method is recommended when recording the purchase of a bond. All transaction fees and commissions should be included in the price of the purchase.

5.15 BOND INVESTMENTS

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When bonds are purchased between interest payments, it is customary to pay the accrued interest to the seller. This accrued interest paid to the seller is debited to the Interest Income account when bonds are initially acquired. As interest payments are received, the Interest Income account is credited. At the end of a fiscal year, an adjusting entry is made for any accrued interest.

5.16 SELLING INVESTMENTS IN BONDS

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When the investing company sell a bond, it records a selling price net of all transaction costs and commissions. The seller also records any accrued interest. The first step in recording the sale of a bond requires one to determine the appropriate amount of the amortization of a discount or a premium. This is necessary to calculate the amount of gain or loss realized from the sale of the investment.

5.17 SELLING INVESTMENTS IN BONDS

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If a discount has been amortized in the current year, it is subtracted from the carrying value of the bond. A premium is added to the carrying amount of the bond. When the proceeds of a sale are greater than the ending carrying amount of the bond, a gain has been realized. A loss is realized when the proceeds of a sale are less than the ending carrying amount.

Chapter 6 CONSOLIDATION

6.1 STOCK INVESTMENTS INFORMATION THAT CAN BE FOUND IN THE FINANCIAL PAGES OF A NEWSPAPER ON STOCK

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1. The high and low price for the past year.
2. The volume of sales for the day.
3. The low, high, and closing price for the day.
4. The current annual dividend and dividend yield.
5. The price-earnings ratio. Stocks of companies which are unprofitable will not have P-E ratios.

6.2 SELLING LONG-TERM STOCK INVESTMENTS GAINS FROM THE OF LONG-TERM INVESTMENTS IN STOCK

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Example: A corporation purchases $50,000 of XYZ company stock, and sells it for $65,000 five years later. The brokerage fee is equal to $750, and another $250 is used for administrative expenses. What entry is necessary to record this transaction?

Entry: debit - Cash 64,000

credit - Investment in XYZ Company Stock 50,000

- Gain on of Investments 14,000

6.3 SELLING LONG-TERM STOCK INVESTMENTS LOSSES FROM THE OF LONG-TERM INVESTMENTS IN STOCK

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Example: A corporation purchases $50,000 of XYZ company common stock, and sells it for $35,000 five years later. A brokerage fee of $500 is incurred as a result. What entry is necessary to record this transaction?

Entry: debit - Cash 34,500

- Loss on of Investment 15,500

credit - Investment in XYZ Company Stock 50,000

6.4 BUSINESS COMBINATIONS MERGERS

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When one company purchases all the properties of another company, and as a result the latter ceases to exist; a merger has taken place. The acquiring company takes over all assets and all liabilities. The acquiring company can make payment in the form of cash, assets, debt obligations, or capital stock. Mergers can produce legal, accounting, managerial, and financial problems. The most difficult task is deciding upon the correct value of the assets of the company being taken over. Besides the value of assets, the market price of both companies securities and their future earnings prospects must be taken into consideration.

6.5 CONSOLIDATED FINANCIAL STATEMENTS EXAMPLES OF INTERCOMPANY ITEMS THAT MUST BE ELIMINATED BEFORE A CONSOLIDATED FINANCIAL STATEMENT IS PREPARED

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1. accounts payable and accounts receivable
2. notes payable and notes receivable
3. interest payable and interest receivable
4. sales and purchases
5. loans between companies
6. ownership of each other's stock

Chapter 7 STATEMENT OF CASH FLOWS

7.1 THE CASH BASIS FUNDS STATEMENT: SOURCES OF CASH

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1. Operating income - is usually the largest and most frequent source of cash provided a business is profitable. When revenues exceed expenses, cash flow increases. When expenses exceed revenues, cash flow decreases.
2. Issuance of capital stock or long-term debt.
3. The sale of noncurrent assets such as equipment, land, buildings, patents, etc.

7.2 CASH PROVIDED BY OPERATIONS: CONVERSION OF NET INCOME FROM A ACCRUAL BASIS TO A CASH BASIS

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1. The following items should be added to net income: depreciation expenses, increases in current liabilities, decreases in current assets, and the amortization of bond discount or intangible assets.
2. The following items should be subtracted from net income: amortization of bond premium, increases in current assets, and decreases in current liabilities.

7.3 WORKING CAPITAL FUNDS STATEMENT: SOURCES OF WORKING CAPITAL

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1. Operating income - when revenues exceed expenses.
2. The issuance of long-term debt.
   Example: Issued a $50,000 bond due to mature in ten years.
3. The issuance of capital stock.
   Example: 10,000 shares of $100 par preferred stock are sold to shareholders for $105 a share.
4. The sale of noncurrent assets.
   Example: building, land, bonds, equipment, etc.

7.4 WORKING CAPITAL FUNDS STATEMENT: USES OF WORKING CAPITAL

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1. The declaration of cash dividends.
   Example: The board of directors issues a declaration that all common shareholders will receive $0.50 for each share held.
2. The retirement of long-term debt.
   Example: Full payment is made to bondholders at maturity.
3. The purchase of noncurrent assets. Example: equipment, land, buildings, etc.

7.5 WORKING CAPITAL FUNDS STATEMENT: WORKING CAPITAL IS NOT AFFECTED BY THE FOLLOWING TRANSACTIONS

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1. Those that are only between current asset accounts.
   Example: Cash is used to purchase inventory.
2. Those that are only between current liability accounts.
   Example: A 90 day note is drawn up for a trade receivable.
3. Those that are only between current asset and current liability accounts.
   Example: A cash payment is made to reduce accounts payable.

Chapter 8 FINANCIAL STATEMENT ANALYSIS

8.1 INTRO TO FINANCIAL STATEMENT ANALYSIS

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Financial statement analysis provides information to those interested in the financial condition and operating results of a company. When financial statement items are considered individually, they usually will have a limited significance. A better perspective is gained when comparisons are made with previous statements, other businesses and industry averages. The main purpose of conducting financial analysis is to measure profitability and solvency. A business which is not able to make interest payments will experience difficulty in obtaining credit. This could lead either to reduced profitability or bankruptcy. A company with lower than average earnings may also find credit harder and more expensive to obtain.

8.2 ANALYTICAL PROCEDURES

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Most analytical measures are expressed as percentages or ratios. This allows easy comparison with other businesses regardless of size. Horizontal and vertical analyses express entire financial statements in percentages. The horizontal analysis is an analysis of the rate of change in items of financial statements form year to year. The vertical (or common size) analysis presents each item as a percentage of total assets for the balance sheet and sales for income statement. When using these analytical measures, one should take the following factors into consideration: 1) industry trends, 2) changes in price levels, and 3) future economic conditions.

8.3 CURRENT POSITION ANALYSIS

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A current position analysis is used to measure the ability of a firm to meet its current (and non-current) obligations. Three popular methods of analysis are: 1) determining working capital, 2) current ratio, and 3) quick ratio. The primary users of current position analysis are creditors. Working capital information is less meaningful than current or quick ratios. These ratios must be compared with other firms in the same industry to see if they are in line.

8.4 ACCOUNTS RECEIVABLE ANALYSIS

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An accounts receivable analysis is used to measure a firm's solvency. The size and composition of accounts receivable is under continuous change, and therefore must be watched closely. Since funds tied up in accounts receivable yield no benefits or interest, it is best to keep this balance to a minimum. The quicker a firm is able to turn-over its accounts receivable, the lesser the risk of loss from uncollectible accounts. In addition, the firm has the option to put these funds into more productive uses.

8.5 ACCOUNTS RECEIVABLE ANALYSIS

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Two commonly used methods to analyze accounts receivable are

1. accounts receivable turnover, and
2. number of days' sales in receivables (or days sales outstanding).

Both methods measure a firm's ability to generate sales and quickly collect its accounts receivable. A lower number of days' sales in receivables indicates a firm is collecting receivables quicker. Both of these measures must be compared with other firms in the same industry.

8.6 INVENTORY ANALYSIS

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A business should maintain an adequate inventory balance to meet demands of its operations, but at the same time keep this balance to a minimum. When a firm has excess inventory, it will have higher operating expenses, reduced solvency, increased risks of losses due to price declines and obsolescence, and, in addition, it limits its chances to take advantage of more favorable investment opportunities. Two measures commonly used to assess inventory management efficiency are

1. inventory turnover ratios and
2. the number of days' sales in inventory.

These figures must be compared with industry averages to properly evaluate inventory management.

8.7 SOLVENCY ANALYSIS - LONG-TERM LIABILITIES

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The following methods are commonly used to evaluate the safety of long-term creditors:

1. ratio of shareholders' equity to liabilities (debt-to-equity),
2. ratio of plant assets to long-term liabilities,
3. operating income divided by interest expense, as well as other payments (known as times-interest-earned or coverage ratios).

For all these methods of analysis, the higher the number, the greater the amount of safety. This information is used by investors, creditors, shareholders and management. It indicates the ability of a firm to meet its financial obligations.

8.8 PROFITABILITY ANALYSIS

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Profitability analysis measures the ability to generate income. Common measures used are

1. profit margin: sales divided by net income,
2. total assets turnover: ratio of net sales to total assets,
3. return on assets: net income divided by total assets,
4. return on equity: net income divided by either shareholders' total equity or common stock only,
5. earnings per share of common stock,
6. dividends per share of common stock.

In addition, investors also use price-earnings ratio, and dividend yield. All these ratios are most useful to those interest in the future ability to prosper, that is the shareholders and other investors, as well as management.

8.9 REVIEW OF ANALYTICAL MEASURES

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Analytical measures are used to assess solvency and profitability. The type of analytical measure chosen usually is dependent on the following factors: 1) the size of the company, 2) its capital structure, and 3) the type of business activity. Analytical measures are useful for evaluating the financial results of a business and the performance of management. They are also used to predict future performance.

8.10 CORPORATE ANNUAL REPORTS

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Corporate annual reports contain information that summarizes the activities of the past year, and the future plans of the company. No standard or required format exists. However, annual reports must by law provide accurate financial statements. Most annual reports contain the following sections:

1. financial highlights,
2. management report,
3. president's letter,
4. an independent auditors' opinion, and
5. historical data.

Chapter 9 MANAGERIAL ACCOUNTING

9.1 FINANCIAL VS. MANAGERIAL ACCOUNTING

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Accounting information is usually divided into two types: 1) financial and 2) managerial. Financial information (i.e. balance sheet and income statement) is prepared periodically, and is primarily intended for outsiders of the firm. Financial information is also useful to management in directing the current operations of a business and planning. Managerial accounting provides additional both historical and estimated data, which is intend specifically for management to run current operations and to plan for the future. The information generated is far more extensive than in financial accounting, and the reports are based on management's needs.

9.2 THE MANAGEMENT PROCESS

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Managerial accounting gives management the information to perform the functions of control and planning. The control function is concerned with the process of directing the operations of an enterprise to achieve its goals. Planning is concerned with developing and setting goals for the use of company resources and formulating methods to achieve these goals. Control and planning decisions are the responsibility of management. The controller of a company gives advice but assumes no responsibility for managerial decisions. Results of management decisions are continuously compared to the goals, and the goals themselves are periodically revised.

9.3 INTRODUCTION TO RESPONSIBILITY ACCOUNTING

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When all major planning and operating decisions are made by one or a few individuals of a business, it is considered to be a centralized organization. The larger a business becomes, the more difficult it is to remain centralized. When an organization becomes decentralized, it is divided into separate units. Each of these units is delegated responsibilities for planning and control. Managers are not required to seek approval from upper management for normal operating decision. The level of decentralization varies greatly among companies because each one has specific and unique circumstances. Managerial accountants assist managers of decentralized organizations.

9.4 DECENTRALIZED OPERATIONS

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Decentralized operations are usually classified according to the scope of responsibility assigned and the decision making authority delegated to managers. The three types of decentralized operations are: 1) cost center, 2) profit center, and 3) investment center.

9.5 COST CENTERS

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A budget is the tool used for planning and controlling costs. It represents a written statement of management's plans for the future in financial terms. Budget performance reports are prepared to compare actual results with budgeted figures. It is the management's responsibility to investigate variances, determine their cause, and suggest improvements. Often there are good explanations for these variances, and variances do not necessarily reflect poor management.

9.6 PROFIT CENTERS

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Managers of profit centers are responsible for expenses and revenues. The income statement is usually the report used to evaluate performance. Income statements for profit centers can emphasize either gross profit or operating income, in addition to showing revenues and expenses of that department. Difficulties arise when expenses are apportioned among departments. Some expenses (period costs and indirect costs) reported on departmental income statements are assigned based on subjective criteria, and the method of allocation is often questionable. Direct costs are under the direct control of the department. Indirect costs are company wide and are referred to as overhead.

9.7 INVESTMENT CENTERS

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Investment center managers are responsible for revenues, expenses, and invested assets. Results can be measured by evaluating operating income, rate of return on investment, and residual income. Because operating income only represents revenues and expenses with no consideration for the amount of invested assets, it does not portray a clear picture of profitability. The rate of return on investment and residual income offer more informative approaches.

Chapter 10 COST ACCOUNTING

10.1 INTRODUCTION TO MANUFACTURING OPERATIONS

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In manufacturing, raw material is transformed with the help of labor and machinery. In a merchandising firm, only one type of inventory is maintained, and only few costs are added to the purchase price of goods to arrive at cost of goods sold. In a manufacturing firm, many and different types of costs are incurred:

1. direct material,
2. direct labor, and
3. factory or manufacturing overhead.

These costs are accumulated in three inventories:

1. materials,
2. work in process, and
3. finished goods.

10.2 INVENTORY ACCOUNTS

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The three inventory accounts used in manufacturing operations are

1. materials inventory: these are raw materials which have not yet entered the processing phase;
2. work in process: this accounts for all goods in the process of manufacturing;
3. finished goods: these are completed goods ready to be sold. Combined, they represent the inventory in the balance sheet.

10.3 TYPES OF COSTS

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To control costs, the different types of costs are identified:

1. direct materials: these make up the major component of and are easily traceable to a given finished product;
2. direct labor: that portion of labor which is assignable to a specific product;
3. factory overhead: all costs other than direct materials and direct labor; this includes fixed costs such as rent and depreciation, but also indirect materials and indirect labor.

Direct materials and direct labor are the prime costs. Direct labor and factory overhead are conversion costs. All the above costs are product costs, as opposed to period cost which are not part of the cost of products and are classified as expenses.

10.4 COST OF GOODS MANUFACTURED

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The cost of goods manufactured statement combines all the direct materials, direct labor and factory with beginning work in process inventory, minus the ending work in process inventory, to report the total cost of the goods which have been manufactured during the period. In order to prepare the statement, a manufacturing summary is debited for all the costs during the year, and credited for the cost of goods manufactured and ending inventories. The cost of goods manufactured is added to finished goods inventory to sum to the goods available for sale, which gives the cost of goods sold when ending finished inventory is deducted.

10.5 COST ACCOUNTING SYSTEM

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The cost accounting system provides a much more effective means of controlling costs than a general accounting system, and offers information on unit costs useful for product pricing and promotion. The cost accounting system uses perpetual inventories. There are two types of cost accounting systems:

1. job order cost systems used when one-of-a-kind products or batches of products are manufactured,
2. process cost systems applicable when uniform and identical products are manufactured on a continuous basis.

10.6 JOB ORDER DIRECT MATERIALS COST

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A purchase requisition triggers a purchase order to a supplier from the purchasing department, and when the goods are delivered, a receiving report showing the quantity and condition of the goods. After verification, the material inventory account is debited. A materials requisition causes goods to be transferred from the storeroom or warehouse to the manufacturing department, and thereupon the materials inventory account is credited. A separate account is often maintained for each type of material.

10.7 JOB ORDER DIRECT LABOR COST

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Time tickets are used to record the labor cost for each individual job. Hours worked are verified by comparing time tickets and clock cards. Labor costs are recorded by debiting work in process and/or factory overhead (depending on whether it is direct or indirect labor), and crediting wages payable.

10.8 JOB ORDER FACTORY OVERHEAD COST

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Factory overhead consists of all manufacturing costs other than direct materials and direct labor. Factory overhead costs are both fixed and variable. The factory overhead controlling account is debited when costs are incurred and credited when factory overhead is "applied" (i.e. allocated) to various job orders. The overhead application rate can be based on either direct labor hours, direct labor cost or machine hours. Total credits rarely equal debits. A remaining credit indicates the overhead was underapplied (or underabsorbed), a debit indicates the overhead was overapplied. If this difference is small, it is closed to cost of goods sold. If it is large, it is allocated to the various inventory accounts.

10.9 JOB ORDER WORK IN PROCESS

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The work in process account receives debits for direct materials, direct labor and factory overhead costs. The work in process account is a controlling account. Cost ledgers maintain details on the costs of each individual job. A individual cost ledger account is called a job cost sheet. It provides extensive information on each job direct materials, direct labor, and factory overhead costs. When a job is completed, total costs are added up and divided by the number of units finished to determine cost per unit.

10.10 FINISHED GOODS

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The finished goods account is a controlling account, with a subsidiary ledger called the stock ledger or the finished goods ledger. The finished goods ledger provides detailed information on goods manufactured and shipped on quantity, price, date, and unit cost. When finished goods are sold, the cost of goods sold is debited and finished

goods credited. In the event goods are returned by buyers, the finished goods account is debited and the cost of goods sold credited.

10.11 REVIEW OF JOB ORDER COST SYSTEMS

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Three inventory accounts are used by manufacturing enterprises: 1) materials, 2) work in process, and 3) finished goods. These inventory accounts record the costs of manufacturing goods. The materials account records the costs of materials purchased for production purposes. When materials are used in production, the work in process account is debited. The work in process inventory records materials, labor, and factory overhead costs. When goods are completed the finished goods account is debited. When goods are sold the cost of goods sold accounts is debited. Each of these accounts are controlling accounts, and the detailed information is present is subsidiary ledgers.

Chapter 11 BUDGETS

11.1 INTRODUCTION TO BUDGETING

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Budgets are formal operating plans expressed in financial terms. Budgets help management

1. planning for the future and setting goals,
2. motivating employees,
3. coordinating activities,
4. identifying problem areas with performance evaluation, and, thus,
5. correcting difficulties.

11.2 THE BUDGET PERIOD

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Most companies use a budget period which corresponds to their fiscal year. Annual budgets are often split into shorter periods - quarter or month - over which greater control can be exercised. When budgets are revised periodically to take account of changing internal and external conditions, this is called continuous budgeting. Budgeting extending over several years is referred to as long range planning.

11.3 BUDGET PREPARATION

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The preparation of budgets is the responsibility of the budget committee. The budget committee is usually composed of employees of all levels of management because the success of the budgeting process depends on the cooperation of all departments and all employees. The preparation of budgets follows a sequence in which departmental estimates based on sales forecasts are received and combined into a master budget which must be approved by upper management. Most businesses initially base their estimates on prior years. But government agencies and not-for-profit organizations commonly prepare estimates as if the organization has just been created (which is called zero-base budgeting).

11.4 THE MASTER BUDGET

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The master budget integrates all the departmental budgets. It is used to prepare projected financial statements called pro forma income statement and pro forma balance sheet. The contents of the master budget differ depending on the type of business (manufacturing, merchandising or services). But they always help management make operating, financing and capital expenditure decisions.

11.5 COMPONENTS OF A MASTER BUDGET

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The master budget is composed of three parts:

1. the operating budget,
2. the capital expenditure budget, and
3. the cash or financial budget.

The operating budget is further decomposed into

1. the sales budget,
2. the cost of goods sold budget, and
3. operating expenses budget.

The budgeting process always starts with the sales budget.

11.6 BUDGETED FINANCIAL STATEMENTS

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The budgeted (or pro forma) income statement is based on the sales forecast and the cost data contained in the operating budgets. Financial ratios are used to assess the contribution of various budgeted items of the income statement to profitability, and to analyze the anticipated liquidity, leverage and return on equity portrayed by the budgeted balance sheet.

11.7 BUDGET PERFORMANCE REPORTS

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Budget performance reports compare budgeted figures with actual results. They reveal problem areas and help management correct them, as well as improve estimation methods. Because of the role of external factors, management is not always blamed for shortfalls. Nevertheless, it is essential that budgets contain

achievable targets which motivate employees avoiding frustration which unmet goals can cause.

11.8 FLEXIBLE BUDGETS

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When changing levels of production are build into budgets, the budgets are said to be flexible budgets. Costs are classified as

1. fixed, which do not change with the production level,
2. variable, which are tied to the production level, or
3. semi-variable, which vary only beyond a given production level.

Flexible budgets gives recognition to the fact that the different variable costs do not vary in the same proportion to production levels.

11.9 COMPUTERS & BUDGETING

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Most large businesses use computers to assist them in their budgeting efforts. The advantages of using computers are

1. they allow cost savings,
2. the data can be updated quickly and easily, and
3. the preparation of flexible and continuous budgets is simplified.

11.10 STANDARD COSTS

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Standard cost systems are designed to measure the efficiency of manufacturing operations. A standard cost is the cost of a product determined by combining past year direct materials cost, factory overhead cost and direct labor cost, to arrive at the cost which can be anticipated for a "normal" level of production. Standard costs are used in job order and process cost accounting systems. The difference between the standard cost and the actual cost is called a variance. Variances are calculated for the total standard cost as well as for its components: materials, labor and overhead. Standard costs are revised when changes occur in the manufacturing process.

11.11 DIRECT MATERIALS COST VARIANCE

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A direct materials cost variance is broken down into

1. a quantity variance (whether or not too much material was used), and
2. a price variance (whether or not the price was higher than anticipated).

A significant unfavorable materials quantity variance suggests the need to review the production process. A significant unfavorable materials price variance points at the purchasing department.

11.12 DIRECT LABOR COST VARIANCE

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A direct labor cost variance is broken down into

1. a direct labor time (or efficiency) variance, and
2. a direct labor rate (or wage) variance.

Significant direct labor time variances suggest problems in productive efficiency. Significant direct labor rate variances require review of company personnel policies.

11.13 FACTORY OVERHEAD COST VARIANCE

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A factory overhead cost variance is decomposed into

1. factory overhead volume variance (which is primarily affected by production being below 100% of capacity), and
2. factory overhead spending or controllable variance (which is capturing differences in the overhead amount itself).

Analysis of factory overhead variances is more difficult than other variances because overhead, being by nature fixed, is less under management's control, and because overhead is made of many different types of expenses. Since changes in levels of production are critical in this variance, flexible budgets are especially useful.

11.14 RECORDING STANDARDS IN ACCOUNTS

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Variances are most clearly revealed when the use of standard costs is incorporated into the work in process inventory account: crediting for standard cost and debiting for actual cost leaves any balance in the account in excess of ending inventory as a variance. The analysis of that variance is useful for management to understand the income statement better.

Chapter 12 UNIT COSTS

12.1 PROCESS COST SYSTEM

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The process cost system is used by firms manufacturing identical products in a continuous mass production. As opposed to job order cost systems where unit costs are determined for separate jobs, in process cost systems, there is only one product and, therefore, only one overall unit cost. But, separate unit costs for each department reflect the manufacturing process as the product moves from department to department.

12.2 PROCESS COST INVENTORIES

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Each department work in process inventory is debited for 1- the goods transferred to it and 2- the conversion costs (made of direct materials, direct labor and an apportioned factory overhead). It is credited for the goods transferred to the next department (or finished goods).

12.3 EQUIVALENT UNITS OF PRODUCTION

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The number of products which could have been manufactured from start to finish by a department in a given period is known as the equivalent units of production. This number takes into account the beginning and ending inventory being made of products in different stages of production: both are converted to full or equivalent units before being added and subtracted (respectively) from actual total production of completed units.

12.4 UNIT PROCESSING COST

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The unit processing cost is calculated by dividing the total processing cost assigned to the department by the equivalent units of production. This cost is further broken down into direct materials unit cost and conversion unit cost.

12.5 JOINT PRODUCT COST

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When two or more products are produced simultaneously in a single manufacturing process, the joint material, labor and/or overhead must be apportioned to the different products. A common allocation method is based on the relative sales value of each product. When one of the products has a much lower value, it is called a byproduct. A byproduct is valued at net realizable value.

12.6 MANAGERIAL ACCOUNTING REPORTS

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The desirable features of a managerial accounting reports are accuracy, clarity, conciseness, relevance and timeliness. Reports are not desirable if their cost exceeds any potential benefit.

12.7 GROSS PROFIT ANALYSIS

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Gross profit analysis reveals whether a change in gross profit is attributable to sales volume, selling price or cost of production. The cost of production is further analyzed with variable costing or absorption costing. The purpose of the analysis is to help management make production, pricing, sales mix decisions as well as control costs.

12.8 VARIABLE COSTING

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In variable costing, also known as direct costing, all the variable cost, and only variable costs, are assigned to cost of goods. A manufacturing margin (or marginal income) is derived by subtracting this variable cost from sales, and the factory overhead together with other selling and administrative expenses are deducted from it to arrive at net income. Variable costing reveals the effect of changing volume of production on net income.

Sales minus Variable costs = manufacturing margin (or marginal income)

Manufacturing margin

minus   factory overhead

minus   other selling and administrative expenses

Net income

12.9 ABSORPTION COSTING

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In absorption costing, both variable and allocated overhead costs are assigned to cost of goods sold. Variable and absorption costing are similar if goods sold and goods manufactured are equal. When they are not equal, the absorption costing method reveals the effect of changes in inventory on net income.

Chapter 13 COST-VOLUME-PROFIT RELATIONSHIPS

13.1 COST-VOLUME-PROFIT RELATIONSHIPS

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Cost-volume-profit analysis examines the interrelationships between costs, revenues, selling prices, revenues, production volume and profits. Cost-volume-profit analysis is based on data provided by accounting. Total costs are separated into

1. variable costs which change with production level,
2. fixed costs which do not change with production level, and
3. mixed costs which are partly fixed and partly variable.

13.2 BREAK-EVEN ANALYSIS

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At a break-even point, a business has neither profit nor loss. Break-even analysis is often used to predict and plan for the future. The break-even point is given by the quantity for which

REVENUES = FIXED COSTS + VARIABLE COSTS

where revenues and variable costs are estimated for various levels of production. A graphical representation shows that as fixed and variable costs increase, so does the break-even point. The break-even formula is modified to required a given profit.

13.3 BREAK-EVEN CHART

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Break-even charts are used to help in understanding the relationships between sales, costs, and operating profits or losses. The capacity stated in percentage form is represented on the horizontal axis of the chart. Revenue and costs are represented on the vertical axis. The total costs line begins at a point on the vertical axis. This point is equal to total fixed costs. The sales line begins at zero. When the sales and total costs lines intersect, the break-even point has been reached.

13.4 PROFIT-VOLUME CHART

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The profit-volume chart focuses on the profitability of a company. The vertical axis represents the maximum operating profit and the maximum operating loss that can be realized when capacity ranges from zero to 100%. The horizontal axis contains different levels of manufacturing capacity. Only one line is used by the profit-volume chart. This profit line begins at a negative point on the vertical axis which is equal to total fixed costs.

13.5 PROFIT-VOLUME CHART

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When the profit line crosses the horizontal axis, a break-even point has been established. This break-even point is stated in terms of a productive capacity. The profit-volume chart can be used to measure the effects of changes in unit selling prices, total fixed costs, and unit variable costs. Each time such a change occurs, the profit-volume chart is revised.

13.6 SALES MIX

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The sales mix must be taken into consideration because products have different selling prices, unit variable costs, and therefore profit margins. Starting with the proportion of each product in total revenue, each product selling price and cost, the contribution of each product to profits is determined. This information is incorporated on an increment basis product by product into the break-even analysis.

13.7 MARGIN OF SAFETY

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The margin of safety is measured as either a sales dollar volume or a ratio. The margin of safety in terms of sales dollar volume is calculated by subtracting break-even sales from current sales. The margin of safety as a ratio is calculated by dividing the dollar volume sales safety margin by current sales. When the margin of safety is low, management must exercise caution because a small decline in sales revenue could lead to an operating loss.

13.8 CONTRIBUTION MARGIN RATIO

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The contribution margin ratio is computed by subtracting variable expenses from sales and dividing the results by sales. The contribution margin ratio provides useful information on a firm's profit potential and the relationships between costs, profits, and volume. Contribution margins are often used to set business policies. Firms with large contribution margins and excessive productive capacity often concentrate their efforts on increasing production and sales volume.

Chapter 14 CAPITAL INVESTMENT ANALYSIS

14.1 RELEVANT INFORMATION

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The information needed for many business decisions requiring to choose between several alternatives, goes beyond the data provided in the financial statements and involves expected or future revenues and costs. In this analysis of expected numbers, only what changes is relevant: what does not change is irrelevant. Thus, the name given to this analysis as differential or incremental. Note that, while variable cost do naturally vary, some fixed cost can also change in some of these decisions. Note also that past costs are irrelevant: they called sunk costs.

14.2 LEASING OR SELLING EQUIPMENT

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When comparing the choice between leasing or selling currently unused equipment, the additional, incremental or differential elements of either are studied for

1. revenue,
2. costs, and
3. net gain.

Book value and accumulated depreciation are omitted as irrelevant, but net tax effects are not.

14.3 MAKE OR BUY

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When a manufacturer has excess productive capacity in space, equipment and labor, producing components may be better than purchasing them. Producing is chosen if the incremental cost is lower than the purchase price. The incremental cost combines additional direct materials, direct labor, fixed factory overhead and variable factory overhead. Non economic factors, such as relations with suppliers, also often come into consideration.

14.4 REPLACING PLANT ASSETS

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The differential analysis for plant asset replacement takes the following into consideration: annual variable costs of both new and old equipment, the expected life of new equipment, the cost of new equipment, the proceeds from the sale of old equipment, and any annual differential in cost.

14.5 OPPORTUNITY COST

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When a benefit or profit that could have been obtained, was not, this foregone benefit is referred to as an opportunity cost. While accounting is concerned with out-of-pocket costs, for most business decisions, opportunity costs are just as real and, in some cases, more significant.

14.6 DISCONTINUING UNPROFITABLE SEGMENTS

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Products, branches, segments, departments, and territories that are unprofitable should be considered for elimination. If eliminating the unprofitable segments has no effect on fixed costs, the overall net income from operations will improve from the reduction in variable costs. This depends, however, on whether the remaining products or segments are competing or complementary. In the later case, revenue may decrease creating an opportunity cost in excess of the out-of-pocket cost reduction. Fixed costs can also play a role if alternative uses for the plant capacity exist. Lastly, layoffs can affect morale.

14.7 SELLING OR PROCESSING GOODS FURTHER

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Manufacturing companies often sell their products at an intermediary stage of production. When differential analysis is used to determine whether goods should be sold now or processed further, only costs and revenues from further processing need to be considered. When more net income can be earned by processing goods further, they should be produced providing the production capacity exists.

14.8 ACCEPTING SPECIAL ORDERS

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A company may accept additional business at a special price. Incremental or differential analysis is used to determine the differential revenue and costs. Companies not operating at full capacity usually can benefit from additional business, if fixed costs remain the same and the fixed cost per unit produced decreases. However, a company operating at full capacity is likely to see both fixed costs and variable costs rise.

14.9 CAPITAL BUDGETING

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Capital investment analysis or capital budgeting is used by management to plan, evaluate, and control long-term investment decisions. Capital investment decisions commonly affect operations for a number of years and require a long-term commitment of funds. Capital investment decisions are usually based on either

1. payback period,
2. average rate of return,
3. net present value, or
4. internal rate of return.

14.10 AVERAGE RATE OF RETURN METHOD

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The average rate of return is calculated by dividing average annual net income by average investment. When comparing projects, the highest average rate of return is selected, but consideration for risk is given. The method is commonly used to determine investment proposals with a short life span, and therefore, it is not essential to use present values. The advantage of the method is its simplicity, but ignoring time value of money is a drawback.

14.11 PAYBACK PERIOD

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The payback period or cash payback method measures the number of years it will take to recover a capital investment. It is determined by dividing the original investment by annual net cash flows, or, if the cash flows are uneven, by adding up cash flows until the original investment is recovered. Generally, the shorter the payback period the better. A disadvantage of this method is that it does not take into

account cash flows beyond the payback period since proposals with longer payback periods may prove to be more profitable in the long-run. The method is used by firms with liquidity problems or high risk.

14.12 DISCOUNTED CASH FLOW METHODS

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Net present value and internal rate of return are both discounted cash flow methods and give recognition to the time value of money by discounting, that is, taking the present value of all future cash flows. Both methods require a discount rate or opportunity cost of capital. This rate is influenced by a number of factors such as presence of risk, availability of borrowing, relative profitability, minimum desired rate of return, nature of the business and purpose of capital investments. The calculation of discounted cash flows can involve the use of factor tables, exact formulas, financial calculators or computers.

14.13 NET PRESENT VALUE

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The net present value is the sum of the discounted future net cash flows minus the initial investment. All proposals with positive net present value are acceptable. When competing alternative proposals are compare, the one with the largest net present value is chosen. An index determined by dividing the total present value of net cash flows by the initial investment is sometimes used instead when comparing project with different size of initial investment.

14.14 INTERNAL RATE OF RETURN

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The internal rate of return, also called the discount rate, is the rate for which the net present value is zero. That is, the sum of future net cash flows discounted for time value of money is just equal to the initial investment for that particular rate. This internal rate of return is compared to the cost of capital or cutoff rate, and if higher, the project is accepted. When competing proposal are compared the project with the highest internal rate of return is chosen. Calculating the internal rate of return requires either a trial and error method by looking up in present value tables a present value factor given by dividing the initial investment by the annual cash flow, or with the use of a financial calculator or computer.

14.15 CAPITAL INVESTMENT ANALYSIS - PROBLEMS

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A number of factors complicate capital investment analysis. They are inflation, income taxes, incorrect estimates and the possibility of leasing instead of buying.

14.16 CAPITAL RATIONING

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Capital rationing means that there is only enough capital for the projects with the greatest profit potential. The proposals are initially evaluated to see if they meet minimum cash payback period or required average rate of return. If they do, they are then further evaluated by present value techniques. Proposals that have met all financial criteria are then subjected to nonfinancial analysis.

14.17 CAPITAL EXPENDITURES BUDGET

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Once capital expenditure proposals have been approved, a capital expenditure budget is prepared. Procedures for controlling expenditures should also be established. Capital expenditures budgets compare actual results with projections.