Financial Accounting,

PowerPoint Presentations

Chapter 1

Accounting: The Language of Business

Learning Objectives

After studying this chapter, you should be able to:

- Explain how accounting information assists in making decisions.
- Describe the components of the balance sheet.
- Analyze business transactions and relate them to changes in the balance sheet.
- Compare features of proprietorships, partnerships, and corporations.

Learning Objectives

After studying this chapter, you should be able to:

- Describe auditing and how it enhances the value of financial information.
- Distinguish between public and private accounting.
- Evaluate the role of ethics in the accounting process.

Introduction

- Accounting - a process of identifying, recording, summarizing, and reporting economic information to decision makers in the form of financial statements

- Financial accounting - focuses on the specific needs of decision makers external to the organization, such as stockholders, suppliers, banks, and government agencies

The Nature of Accounting

- The accounting system is a series of steps performed to analyze, record, quantify, accumulate, summarize, classify, report, and interpret economic events and their effects on an organization and to prepare the financial statements.

The Nature of Accounting

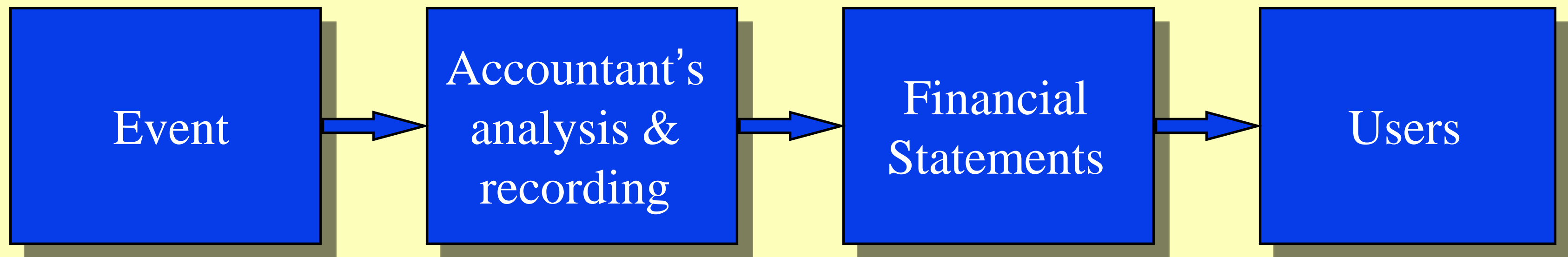
- Accounting systems are designed to meet the needs of the decisions makers who use the financial information.
- Every business has some sort of accounting system.
  - These accounting systems may be very complex or very simple, but the real value of any accounting system lies in the information that the system provides.

Accounting as an Aid to Decision Making

- Accounting information is useful to anyone who makes decisions that have economic results.
  - Managers want to know if a new product will be profitable.
  - Owners want to know which employees are productive.
  - Investors want to know if a company is a good investment.
  - Legislators want to know how a proposed law will affect budgets.
  - Creditors want to know if they should extend credit, how much to extend, and for how long.
  - The IRS wants to know if taxable income is measured properly.
  - Government regulators want to know if financial statements conform to requirements.

Accounting as an Aid to Decision Making

- Fundamental relationships in the decision-making process:



Financial and Management Accounting

- The major distinction between financial and management accounting is the users of the information.
  - Financial accounting serves external users.
  - Management accounting serves internal users, such as top executives, management, and administrators within organizations.

Financial and Management Accounting

The primary questions about an organization's success that decision makers want to know are:

What is the financial picture of the organization on a given day?

How well did the organization do during a given period?

Financial and Management Accounting

Accountants answer these primary questions with three major financial statements.

- Balance Sheet - financial picture on a given day
- Income Statement - performance over a given period
- Statement of Cash Flows - performance over a given period

Financial and Management Accounting

- Annual report - a document prepared by management and distributed to current and potential investors to inform them about the company's past performance and future prospects.
  - The annual report is one of the most common sources of financial information used by investors and managers.

Financial and Management Accounting

- The annual report usually includes:
  - a letter from corporate management
  - a discussion and analysis of recent economic events by management
  - footnotes that explain many elements of the financial statements in more detail
  - the report of the independent auditors
  - a statement of management's responsibility for preparation of the financial statements
  - other corporate information

The Balance Sheet

- What are the different sections of the Balance Sheet?

The Balance Sheet

Sections of the balance sheet:

- Assets - resources of the firm that are expected to increase or cause future cash flows (everything the firm owns)
- Liabilities - obligations of the firm to outsiders or claims against its assets by outsiders (debts of the firm)
- Owners/Equity - the residual interest in, or remaining claims against, the firm's assets after deducting liabilities (rights of the owners)

The Balance Sheet

The balance sheet equation:

Assets = Liabilities + Owners/Equity

or

Owners/Equity = Assets - Liabilities

The Balance Sheet

HAMILTON COMPANY
Balance Sheet
December 31, 1997

Assets		Liabilities	
Current assets:		Current liabilities:	
Cash	$ 4,525	Accounts payable	$ 9,800
Accounts receivable	2,040	Wages payable	3,765
Total current assets	$ 6,565	Total liabilities	$13,565
Plant assets:			
Land	$ 9,755		
Equipment	6,500	Owners/Equity	
Total plant assets	16,255	Hamilton, capital	9,255
		Total liabilities and	
Total assets	$22,820	Owners/equity	$22,820
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Balance Sheet Transactions

- The balance sheet is affected by every transaction that an entity encounters.
- Each transaction has counterbalancing entries that keep total assets equal to total liabilities and owners?equity, i.e., the balance sheet equation ***must always*** be balanced.

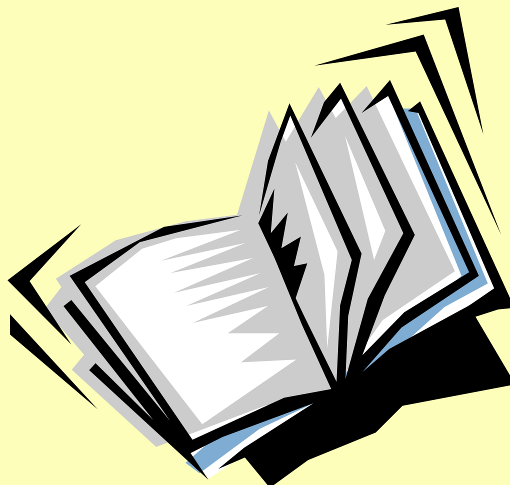
Balance Sheet Transactions

- Just as the balance sheet equation must always balance, the balance sheet ***must also always*** balance.

- A balance sheet could be prepared after every transaction, but this practice would be awkward and unnecessary.
  - Therefore, balance sheets are usually prepared monthly or on some other periodic schedule.

Transaction Analysis

- Transactions are recorded in accounts, which are summary records of the changes in particular assets, liabilities, or owners/equity.
- The account balance is the total of all entries to the account.



Transaction Analysis

- For each transaction, the accountant must determine:
  - which specific accounts are affected
  - whether the account balances are increased or decreased
  - the amount of the change in each account

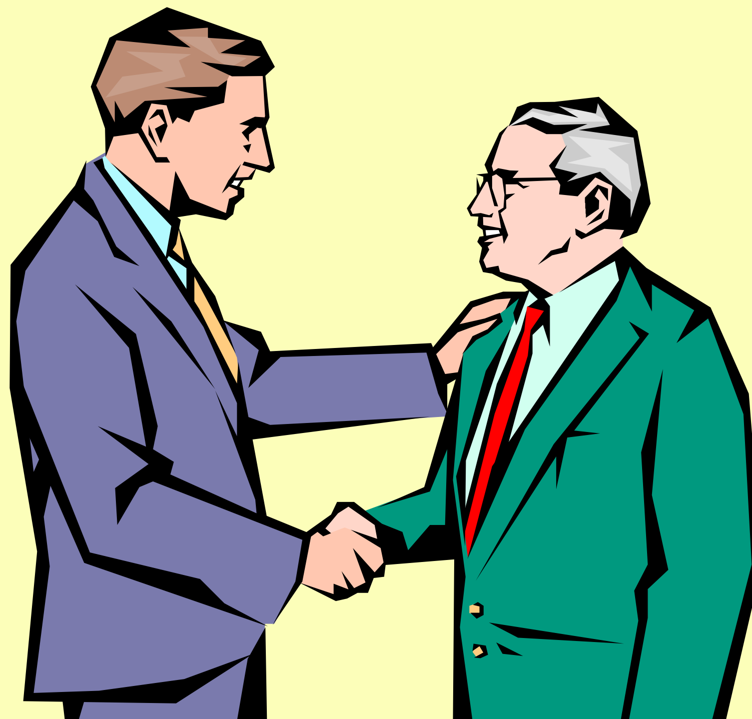
Transaction Analysis

Some definitions to remember:

- Inventory - goods held by a firm for resale to customers
- Account payable - a liability that results from the purchase of goods or services on account
- Compound entry - a transaction that affects more than two accounts
- Creditor - one to whom money is owed
- Debtor - one who owes money

Types of Ownership

- Three basic forms of ownership:
  - Sole proprietorships
  - Partnerships
  - Corporations



Types of Ownership

Sole Proprietorship

- A separate organization with a ***single*** owner
- Tend to be small retail establishments and individual professional or service business - for example, a single dentist, attorney, or public accountant
- The sole proprietorship is an individual entity that is separate and distinct from the owner.

Types of Ownership

Partnership

- An organization that joins two or more individuals who act as co-owners
- Dentists, doctors, attorneys, and accountants tend to conduct their activities as partnerships. Some can be large international firms.
- The partnership is an individual entity that is separate and distinct from each of the partners.

Types of Ownership

Corporation

- An Artificial entity? created under state laws
- Corporations have limited liability - corporate creditors have claims against corporate assets only.
  - Individual investors are at risk only up to the amount they have invested in the corporation. Creditors cannot hold investors liable for the corporation debts.

Types of Ownership

Corporation

- Owners are called shareholders or stockholders.
- Publicly owned vs. privately owned corporations
  - Public - Shares in the ownership are sold to the public on a stock exchange; the corporation can have many thousands of shareholders.
  - Private - Shares in the ownership are owned by families, small groups of shareholders, or a single shareholder, and shares are not sold to the public.

Types of Ownership

Management by the owners:

- Sole proprietorship - The owner is an active manager in day-to-day operation of the business.
- Partnership - Partners are usually active managers in day-to-day operations of the business.
- Corporation - Shareholders usually do not participate in the day-to-day operations of the business.

Advantages and Disadvantages of Forms of Ownership

Corporations

- Advantages
  - limited liability
  - easy transfer of ownership - shares of stock can be bought and sold easily (stock exchanges)
  - ease of raising ownership capital - many potential stockholders
  - continuity of existence - life of the corporation continues even if its ownership changes

Advantages and Disadvantages of Forms of Ownership

Corporations

- Disadvantages
  - possibility of double taxation - corporation pays tax at the entity level and its owners pay taxes on distributions of earnings to them

Advantages and Disadvantages of Forms of Ownership

Proprietorships and Partnerships

- Advantages
  - no taxation at the entity level - income of sole proprietorship and partnership is attributed to the owners as individual taxpayers

Advantages and Disadvantages of Forms of Ownership

Proprietorships and Partnerships

- Disadvantages
  - unlimited liability - creditors of the business can look to the owners/personal assets for repayment
  - not easy to transfer ownership
  - not easy to raise ownership capital - few, if any individuals interested in a particular proprietorship or partnership
  - no continuity of existence - changes in ownership terminate the proprietorship or partnership

Accounting for Owners/Equity

Proprietorships and Partnerships vs. Corporations

- Owners?equities for proprietorships and partnerships are called capital.
- Owners?equity for a corporation is called stockholders?equity or shareholders?equity.

Accounting for Owners/Equity

- In a corporation, the total capital investment actively invested by the owners at the inception of the company and subsequently is called paid-in capital.
- Paid-in capital consists of two parts:
  - capital stock at par value
  - paid-in capital in excess of par value (additional paid-in capital)

The Meaning of Par Value

- Par value (stated value) - a nominal dollar amount printed on each stock certificate - required by most states
  - Stock is usually issued and sold at more than par value.
- Paid-in capital in excess of par - difference between the total amount received for the stock (issue price or sales price) and par value

The Meaning of Par Value

- The following formulas show the components of total paid-in capital:

Total paid-in capital = Capital stock at par + Paid-in capital in excess of par

Capital stock at par = Number of shares issued x Par value per share

The Meaning of Par Value

- The following formulas show the components of total paid-in capital:

Paid-in capital in excess of par	=	Total paid-in capital	-	Capital stock at par
Total paid-in capital	=	Number of shares issued	x	Average issue price per share

The Meaning of Par Value

- Par value was originally a measure of protection for investors because it established a minimum legal liability of a stockholder.
  - The creditors would be assured that the corporation would have at least a minimum amount of ownership capital because the investors agreed to invest at least par value.

- Capital stock is sometimes called common shares or common stock.

The Meaning of Par Value

- Some investors purchase stock directly from the corporation (as in the previous discussion).
  - The company records cash received and records the par value and paid-in capital in excess of par.
- Usually, stock transactions involve two or more individuals.
  - In that case, the corporation does not record anything - the only change on the corporation records is the change in ownership.

Credibility and the Role of Auditing

- Corporate management is responsible for preparing the financial statement. Management may have incentives to make the company's performance look better than it actually is.
  - Investors must be able to rely on managers to tell the truth and the financial statements to show an accurate picture of the company.

Credibility and the Role of Auditing

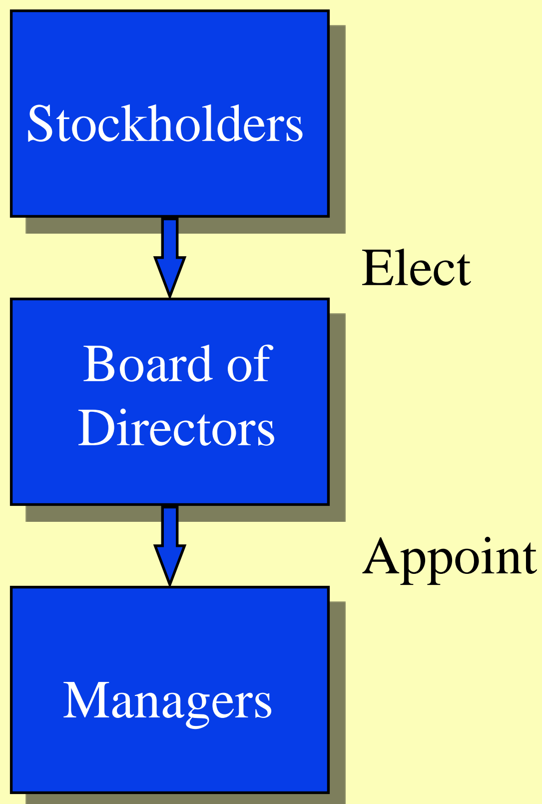
- One way to ensure that the financial statements are credible is to introduce an independent, expert third party. The auditor examines the information used by management to prepare the financial statements and attests to the credibility of those statements.
- Another way to ensure that the financial statements are credible is to make misrepresenting information in financial statements illegal.

Stockholders and the Board of Directors

- In the corporate form of business, management activities and ownership activities are kept separate.
- The board of directors is the link between the owners (stockholders) and the actual managers.
  - The board has the responsibility to ensure that management acts in the interests of the stockholders.

Stockholders and the Board of Directors

- The relationship among owners, managers, and the board of directors:



Stockholders and the Board of Directors

- The board of directors is elected by the stockholders.
  - Often, top executives (president, vice presidents, etc.) are elected to the board of directors
- Management is appointed by the board of directors
- Therefore, the interests of both the stockholders and management are usually represented on the board of directors.

The Certified Public Accountant

- Providing credibility to financial statements requires individuals who have:
  - the technical knowledge to assess financial statements and determine their quality
  - the reputation for integrity and honestly telling interested parties if management has not produced fair financial statements
- The accounting profession has such individuals.

The Certified Public Accountant

- Certified Public Accountant (CPA) - earns the designation by a combination of education, qualifying experience, and the passing of a two-day written national examination
- The CPA exam covers four major areas:
  - auditing
  - accounting theory
  - business law
  - accounting practice (taxes, cost accounting, etc.)

The Certified Public Accountant

- Hong Kong Institute of Certified Public Accountants (HKICPA) - principal professional association in the private sector that regulates the quality of the public accounting profession
  - The HKICPA prepares and grades the CPA exam.
  - Each state has its own regulations concerning the qualifications for taking the CPA exam and for earning the right to practice as a CPA.

The Auditor's Opinion

- Audit - an examination of transactions and financial statements made in accordance with generally accepted auditing standards developed primarily by the HKICPA
- An audit includes:
  - tests of the accounting records
  - tests of the internal control system
  - other audit procedures as deemed necessary

The Auditor's Opinion

- The audit is described in the auditor's opinion.
  - The auditor's opinion is also known as the independent opinion or the independent auditor's report.
  - The auditor's opinion is included with the financial statements of the organization being examined.

The Accounting Profession

- The most common way to classify accountants is to divide them into public accountants and private accountants.
  - Public accountants - those whose services are offered to the general public on a fee basis
  - Private accountants - all other accountants, including those who work for businesses, government agencies, and other not-for-profit organizations

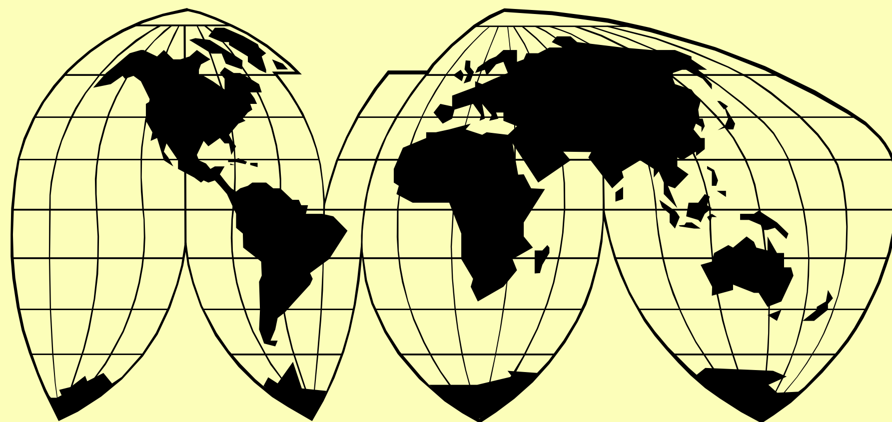
The Accounting Profession

- Public Accounting Firms:
  - Services offered include auditing, preparing income tax returns, and management consulting.
  - Firms vary in size and services offered.
    - Small proprietorships perform mostly income tax returns and monthly write-up? work (bookkeeping).
    - Large partnerships perform many different types of accounting and consulting services. Some of these firms have thousands of partners and offices in many different countries.

The Accounting Profession

The Big Four? accounting firms:

- PricewaterhouseCoopers
- Deloitte & Touche
- Ernst & Young
- KPMG Peat Marwick



Other Opportunities for Accountants

- Many accountants start their careers in public accounting and move to positions in business or government.
  - Accounting provides an excellent opportunity for gaining broad knowledge which, in turn, provides excellent opportunities for upward movement within organizations.

Professional Ethics

- Members of the HKICPA must follow a code of professional conduct.
  - especially concerned with competence, confidentiality, integrity, objectivity and independence.
- Ethics extend beyond public accounting.
  - Members of the Institute of Management Accountants and the Institute of Internal Auditors are expected to follow their respective codes of ethics.

Chapter 2

Measuring Income to Assess Performance

Learning Objectives

After studying this chapter, you should be able to:

- Explain how income is measured using both the accrual basis and cash basis accounting methods.
- Use the concepts of recognition, matching, and cost recovery to record revenues and expenses.
- Prepare an income statement and show how it is related to the balance sheet.
- Prepare a statement of cash flows and show how it differs from an income statement.

Learning Objectives

After studying this chapter, you should be able to:

- Account for cash dividends and prepare a statement of retained earnings.
- Compute and explain earnings per share, price-earnings ratio, dividend-yield ratio, and dividend-payout ratio.

Introduction

- Income is calculated as the difference between revenues and expenses.
  - Income is a measure of accomplishment or a means of evaluating an organization's performance.

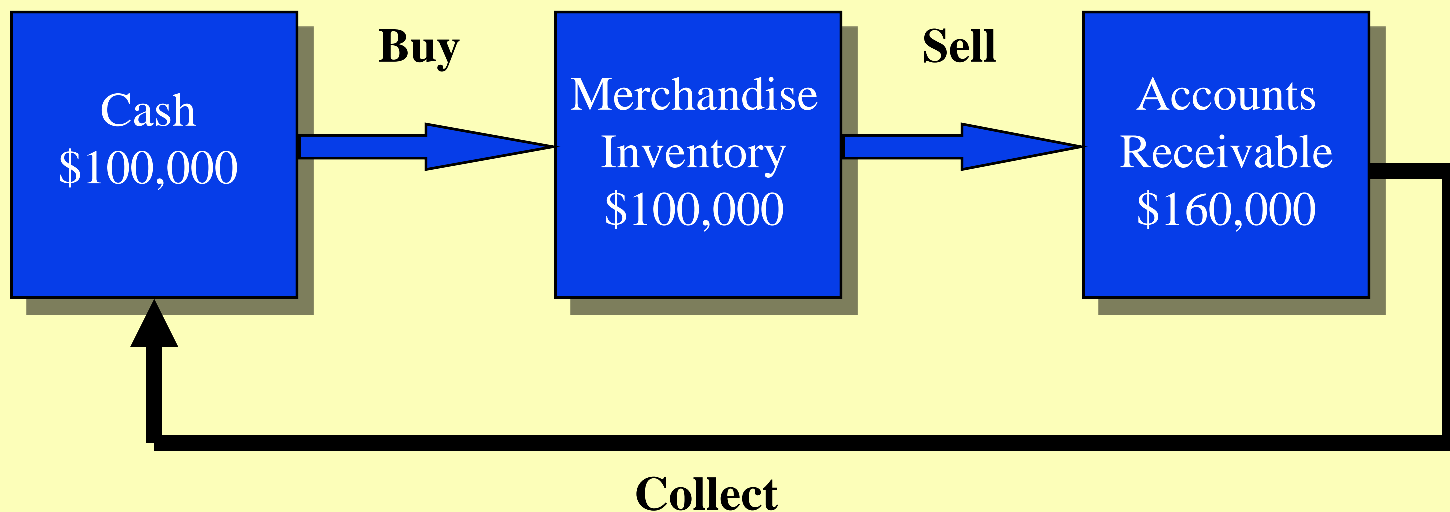
- Accountants have agreed to use the accrual basis of accounting rather than the cash basis.

Introduction to Income Measurement

- Accountants have agreed that all income should be measured in the same way following a common set of rules.
  - This common set of rules allows decision makers to compare the performance of one company with that of other companies because net income is fairly standard.

Operating Cycle

- Operating cycle - the time span during which cash is used to acquire goods and services, which in turn are sold to customers, who in turn pay for their purchases, with cash

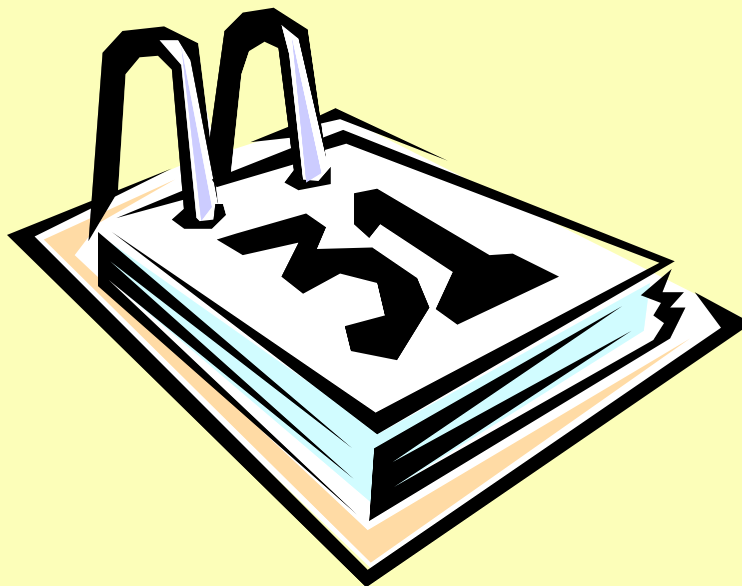


The Accounting Time Period

- Companies need a way to measure performance over discreet time periods.
- The most popular period for measuring income is the calendar year, but many companies use a fiscal year.
  - The fiscal year ends on a date other than December 31, usually at the low point in annual business activity.

The Accounting Time Period

- Companies also prepare statements for interim periods, generally on a quarterly or monthly basis.



Revenues and Expenses

- Revenues - gross increases in owners/equity arising from increases in assets received in exchange for the delivery of good or services to customers
- Expenses - decreases in owners/equity that arise because goods or services are delivered to customers

Revenues and Expenses

- Income (profit) - the excess of revenues over expenses
  - Revenues - Expenses = Profit
- Retained earnings - additional owners/equity generated by income or profits
  - Revenues increase owners/equity.
  - Expenses decrease owners/equity.

Measuring Income

- Income can be measured in many ways.
  - The most common ways of measuring income are the accrual basis and the cash basis.

Accrual Basis and Cash Basis

- Accrual basis - recognizes the impact of transactions for the time periods when revenues and expenses occur even if no cash changes hands
- Cash basis - recognizes the impact of transactions only when cash is received or disbursed

Accrual Basis and Cash Basis

- Under the accrual basis:
  - Revenues are recorded when earned.
    - For example, a sale on account is recorded as revenue when the transaction takes place even though the seller receives no cash at that moment.
  - Expenses are recorded when incurred.
    - For example, a purchase on account is recorded as an expense when the transaction takes place even though the buyer disburses no cash at that moment.

Accrual Basis and Cash Basis

- Under the cash basis:
  - Revenues are recorded when a sale is made for cash at the time when the cash changes hands.
  - Expenses are recorded when a purchase is made for cash at the time when the cash changes hands.

Accrual Basis and Cash Basis

- The accrual basis is the current standard for the measurement of income.

  - presents a more complete summary of the entity's value producing activities
  - matches costs to revenues
  - recognizes unexpired assets

Recognition of Revenues

- Recognition - a test to determine whether revenues should be recorded in the financial statements
- To be recognized, revenue must be:
  - earned - goods are delivered or a service is performed
  - realized - cash or a claim to cash (credit) is received in exchange for goods or services

Recognition of Revenues

- For most retailers, revenue recognition is straightforward - revenue is earned and realized at the point of sale, which is when the customer pays and takes possession of the goods.

Recognition of Revenues

- For other companies, revenue may be earned and realized at different times.
  - Magazine subscriptions are received in advance, but the revenue is not earned until the issues are delivered.
  - Supplies are sent to customers throughout the month, but the cash is not received until the supplies are billed to the customers.

Matching and Cost Recovery

Two types of expenses:

- Product costs - those linked with revenue earned in the same period
  - Cost of goods sold or sales commissions
    - Without sales there is no cost of goods sold or sales commissions.
- Period costs - those linked with the time period itself
  - Rent or other administrative expenses
    - Rent is paid even if no sales are made.

Matching and Cost Recovery

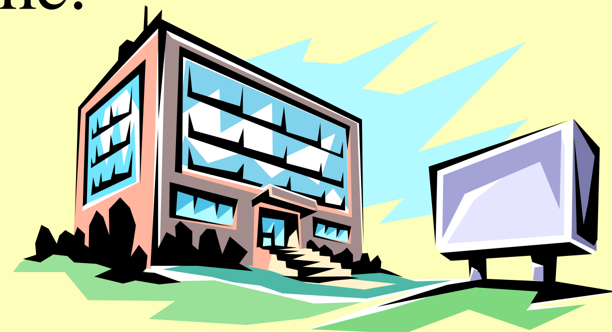
- Matching - recording of expenses in the same time period as the related revenues are recognized
- Cost recovery - concept by which some purchases of goods or services are recorded as assets because the costs are expected to be recovered in future periods
  - An example is rent for one year paid in advance.

Matching and Cost Recovery

- Another example of matching and cost recovery is depreciation.
  - the systematic allocation of the acquisition cost of long-lived assets or fixed assets to the expense accounts of particular periods that benefit from the use of the assets
  - wearing out or using up of the purchased asset over a period of time

Recognition of Expired Assets

- Assets such as inventory, prepaid rent, and equipment may be considered costs that are stored to be carried forward to future periods and recorded as expenses in the future.
  - If these costs are used up immediately, they are expensed immediately rather than being carried as assets for such a short period of time.



Recognition of Expired Assets

- The income statement is really just a way of explaining changes that occur between one balance sheet date and another.
- The balance sheet equation can be manipulated to show that revenues and expenses are subparts of owners/equity.
  - The income statement collects the changes and combines them in one place.

Recognition of Expired Assets

The balance sheet equation:

Assets = Liabilities + Owners/Equity

Assets = Liabilities + Paid-in Capital + Retained Earnings

Assets = Liabilities + Paid-in Capital + Revenues - Expenses

The Income Statement

- Income Statement - a report of all revenues and expenses pertaining to a specific time period
- Net income - the remainder after all expenses (including income taxes) have been deducted from revenue - the bottom line
- Net loss - the excess of expenses over revenues

The Income Statement

WASHINGTON COMPANY
Income Statement
For the Year Ended December 31, 1997

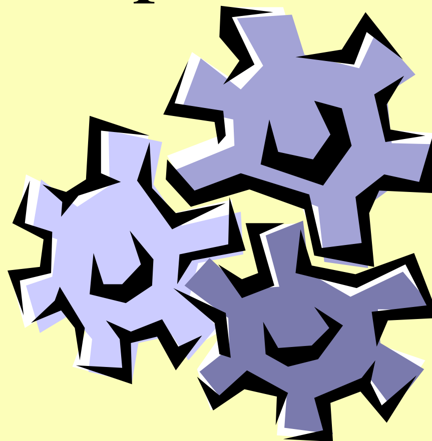
Sales		**$98,600**
Expenses:		
Wages expense	**$45,800**	
Rent expense	**12,000**	
Utilities expense	**6,500**	
Depreciation expense	**5,000**	
Total expenses		**69,300**
Net Income		**$29,300**

The Income Statement

- The income statement must always indicate the exact period covered (month ended, quarter ended, year ended).
- Decision makers inside and outside the company use the income statement to assess the company's performance over a span of time.
  - By tracking net income from period to period, decision makers can evaluate the success of the period's operations.

Relationship Between Income Statement and Balance Sheet

- The balance sheet provides a snapshot of an entity's financial position at an instant in time.
- The income statement provides a moving picture of events over a span of time and explains the changes that have taken place between balance sheet dates.



Statement of Cash Flows

- Income does not measure an entity's performance in generating cash, especially if the income is measured using the accrual basis. The statement of cash flows is prepared to meet this need.
- In a way, accountants use both the accrual and cash bases.
  - The accrual basis is used in the income statement.
  - The cash basis is used in the statement of cash flows.

Statement of Cash Flows

- Statement of cash flows (cash flow statement) - reports the cash receipts and cash payments of an entity during a particular period
  - It summarizes activity over a period of time, so it must be labeled with the exact period covered.
  - It details the changes in the cash account, much like the income statement which shows changes in retained earnings.

Statement of Cash Flows

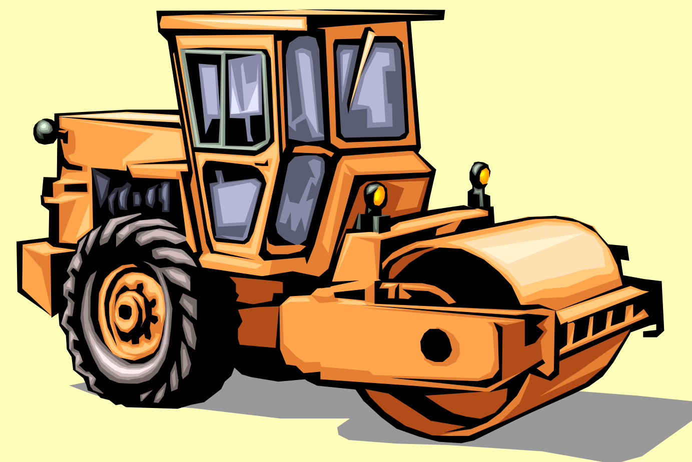
- Creation of statement of cash flows:
  - List activities that increased cash (cash inflows) and decreased cash (cash outflows).
  - Place each cash inflow and outflow into one of three categories according to type of activity:
    - operating activities
    - investing activities
    - financing activities

Statement of Cash Flows

- Operating activities - sale and purchase or production of goods and services
  - collecting accounts receivable from customers
  - paying suppliers or employees
  - paying rent, taxes, and interest
  - collecting interest and dividends from investments

Statement of Cash Flows

- Investing activities - acquiring and selling long-term assets and securities held for long-term investment purposes
  - purchasing a building to be used as a warehouse
  - selling investments
  - purchasing securities of another company as an investment
  - selling a piece of equipment



Statement of Cash Flows

- Financing activities - obtaining resources from owners and creditors and repaying amounts borrowed
  - issuing stocks at par value
  - paying dividends to investors
  - issuing bonds at face value
  - borrowing money from the bank

Accounting for Dividends and Retained Income

- Revenues and expenses are recorded in the Retained Income (Retained Earnings) account.
  - Net income increases retained income.
  - Net losses decrease retained income.

Cash Dividends

- Cash dividends - distributions of cash to stockholders (owners) that reduce retained income
  - Companies pay dividends to provide stockholders a return on their investments.
- Although cash dividends decrease retained income, they are ***not*** treated as expenses.
  - Retained income can be described as the cumulative lifetime earnings of the company, less its cumulative lifetime losses and dividends.

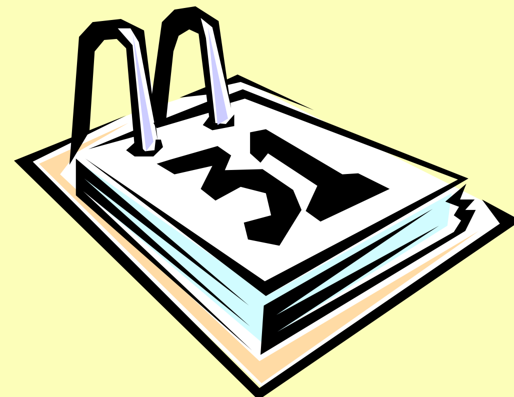
Cash Dividends

- Cash dividends are limited by the amount of cash on hand or available.
- Many companies do not pay cash dividends.
  - These companies retain the cash for financing future growth.
- The board of directors decides if and when cash dividends will be paid to stockholders.

Dividend Transactions

Three important dividend dates:

- Declaration date - board of directors announces its intention to pay a dividend
- Record date - date when ownership of shares is determined
- Payment date - actual payment of the dividend to the stockholders on the record date



Dividend Transactions

- Dividend transactions entail two accounting transactions.
  - Upon declaration, stockholders become creditors because the dividend becomes a legal liability of the company.
  - The resulting liability is reduced only when the cash is disbursed.
    - If the fiscal year ends between the declaration date and the payment date, the amount is shown as a current liability (dividends payable) on the company’s balance sheet.

Statement of Retained Income

- Statement of retained income - lists the beginning balance in Retained Income, followed by a description of any changes that occurred during the period covered by the statement (net income and dividends) and the ending balance in Retained Income

Statement of Retained Income

WASHINGTON COMPANY
Statement of Retained Income
For the Year Ended December 31, 1997

Retained Income, January 1, 1997	**$108,600**
Net income for the year	**29,300**
Total	**$137,900**
Cash dividends declared	**10,000**
Retained Income, December 31, 1997	**$127,900**

Statement of Retained Income

- Often, the statement of retained income is added to the bottom of an income statement to produce the statement of income and retained income.
  - This statement can be anchored to the balance sheet equation as follows:

Assets = Liabilities + Paid-in Capital + Retained Income

Beginning Balance + Revenues - Expenses - Dividends

Statement of Retained Income

WASHINGTON COMPANY

Statement of Income and Retained Income

For the Year Ended December 31, 1997

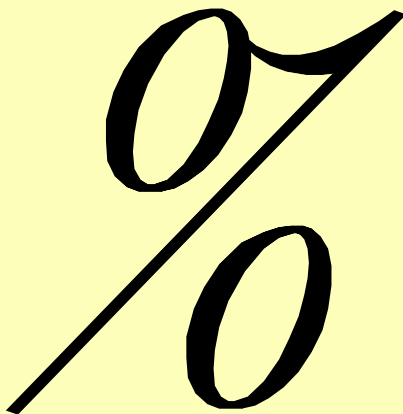
Sales		**$ 98,600**
Expenses:		
Wages expense	**$45,800**	
Rent expense	**12,000**	
Utilities expense	**6,500**	
Depreciation expense	**5,000**	**69,300**
Net Income		**$ 29,300**
Retained Income, January 1, 1997		**108,600**
Total		**$137,900**
Dividends declared		**10,000**
Retained Income, December 31, 1997		**$127,900**

Customs of Presentation

- Customs that accountants follow when preparing financial statements:
  - Accountants often place a subtotal to the right of the final number in a column (see previous slide).
  - Dollar signs are used for the first number in a column and for totals and some subtotals.
  - Double underscores are usually used to signify final numbers.

Four Popular Financial Ratios

- A financial ratio is computed by dividing one number by another.
- Literally hundreds of financial ratios can be computed for each set of financial statements if desired.



Four Popular Financial Ratios

- Four widely used financial ratios:
  - Earnings per Share (EPS)
  - Price-Earnings (P-E) Ratio
  - Dividend-Yield Ratio
  - Dividend-Payout Ratio

Earnings per Share (EPS)

- EPS must actually be shown on the face of the financial statements.
- Earnings per share is the net income per common share of stock outstanding during a period.

$$\text{EPS} = \frac{\text{Net income}}{\text{Average number of shares outstanding}}$$

Price-Earnings (P-E) Ratio

- The P-E ratio measures how much investors are willing to pay for a chance to share the company's potential earnings.

$$\text{P-E Ratio} = \frac{\text{Market price per share}}{\text{Earnings per share}}$$

Price-Earnings (P-E) Ratio

- A high P-E ratio indicates that investors predict that the company's net income will grow rapidly.
- The ratio is determined by the marketplace because the market price of the stock is used to compute the ratio.

Dividend-Yield Ratio

- The dividend-yield ratio measures dividend payouts.

$$\text{Dividend yield} = \frac{\text{Common dividends per share}}{\text{Market price per share}}$$

Dividend-Payout Ratio

- The dividend-payout ratio measures the percentage of earnings per share distributed in the form of cash dividends.

$$\text{Dividend Payout Ratio} = \frac{\text{Common dividends per share}}{\text{Earnings per share}}$$

The Language of Accounting in the Real World

- Organizations use different terms to describe the same concept or account.
- Common terms and some synonyms:

Net Income	Net Earnings
	Profit
Retained Income	Retained Earnings
	Reinvested Earnings
	Earnings retained for use in the business
	Profit employed in the business

Accounting for Nonprofit Organizations

- The basic concept of assets, liabilities, revenues, expenses, and financial statements applies to all organizations.
- Some nonprofit organizations have been slow to adopt accounting concepts used by most profit-seeking organizations.
  - This causes problems in evaluating the performance of such organizations.

Chapter 3

Recording Transactions

Learning Objectives

After studying this chapter, you should be able to:

- Use double-entry accounting.
- Analyze and journalize transactions.
- Post journal entries to the ledgers.
- Prepare and use a trial balance.
- Correct erroneous journal entries and describe how errors affect accounts.

Learning Objectives

After studying this chapter, you should be able to:

- Use T-accounts to analyze accounting relationships.
- Explain how computers have transformed processing of accounting data.

The Double-Entry Accounting System

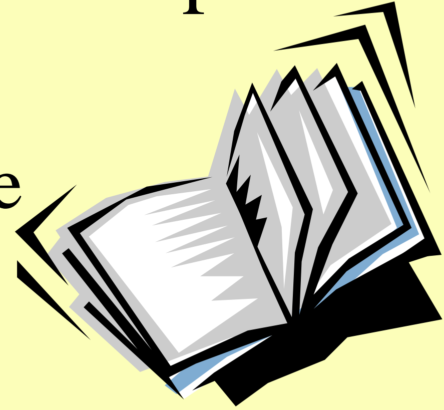
- Businesses enter into thousands of transactions daily.
  - Accountants must carefully keep track of and record these transactions in a systematic manner.
- Accountants use a double-entry accounting system, in which at least two accounts are always affected by each transaction.

The Double-Entry Accounting System

- Each transaction must still be analyzed to determine which accounts are involved, whether the accounts increase or decrease, and how much the balance will change.
- The balance sheet equation can be used for this analysis, but with so many transactions, this is not realistic.
  - In practice, accountants use ledgers.

Ledger Accounts

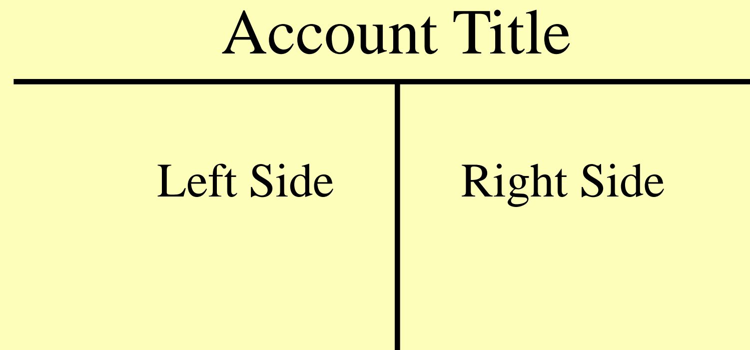
- Ledger - a group of related accounts kept current in a systematic manner
  - Think of a ledger as a book with one page for each account.
  - The ledger is a company's looks.



- General ledger - the collection of accounts that accumulates the amounts reported in the major financial statements

Ledger Accounts

- A simplified version of a ledger account is called the T-account because it takes the form of the capital letter T.
  - A vertical line separates the left side from the right side.
  - The horizontal line is for the account title.



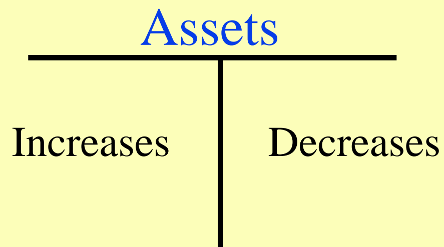
Ledger Accounts

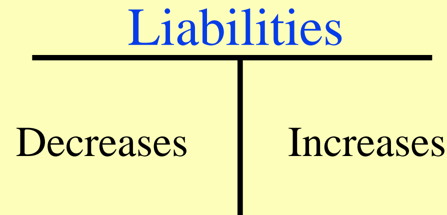
- Balance - difference between total left-side amounts and total right-side amounts at any particular time
  - Assets - left-side balance
    - increased by entries to the left side
    - decreased by entries to the right side
  - Liabilities and Owners/Equity - right-side balance
    - decreased by entries to the left side
    - increased by entries to the right side

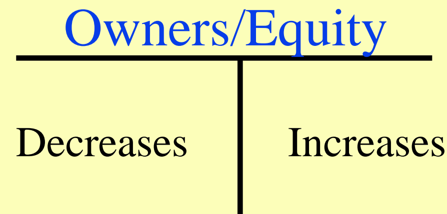
Ledger Accounts

- T-accounts and the balance sheet equation:

Assets = Liabilities + Owners/Equity





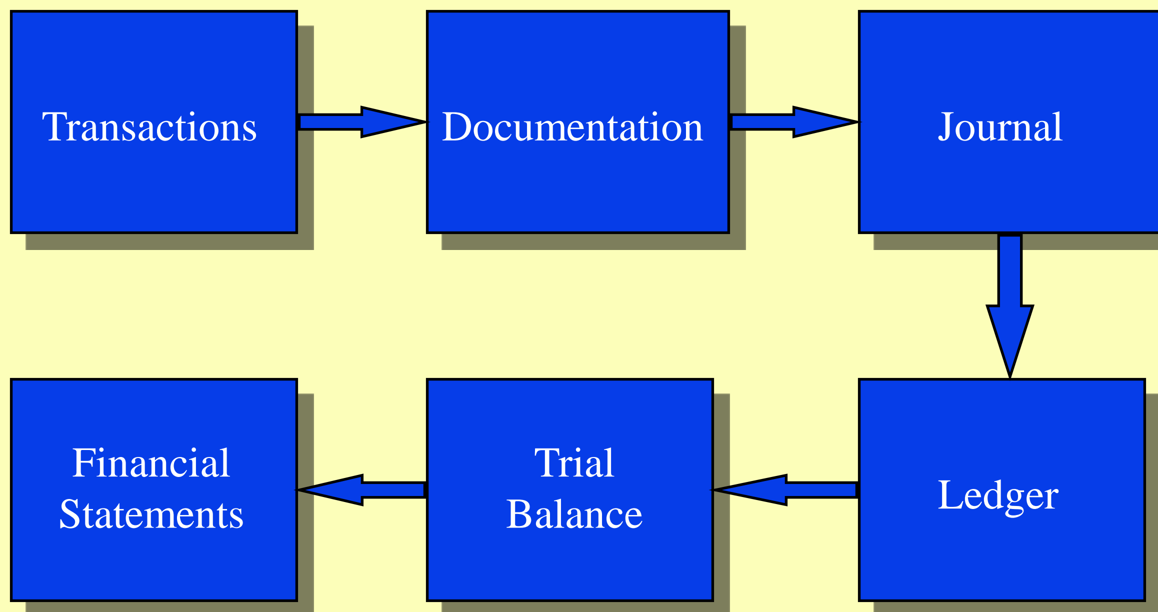


Debits and Credits

- Debit (dr.) - an entry or balance on the left side of an account
- Credit (cr.) - an entry or balance on the right side of an account
- Remember:
  - debit is *always* the left side
  - credit is *always* the right side

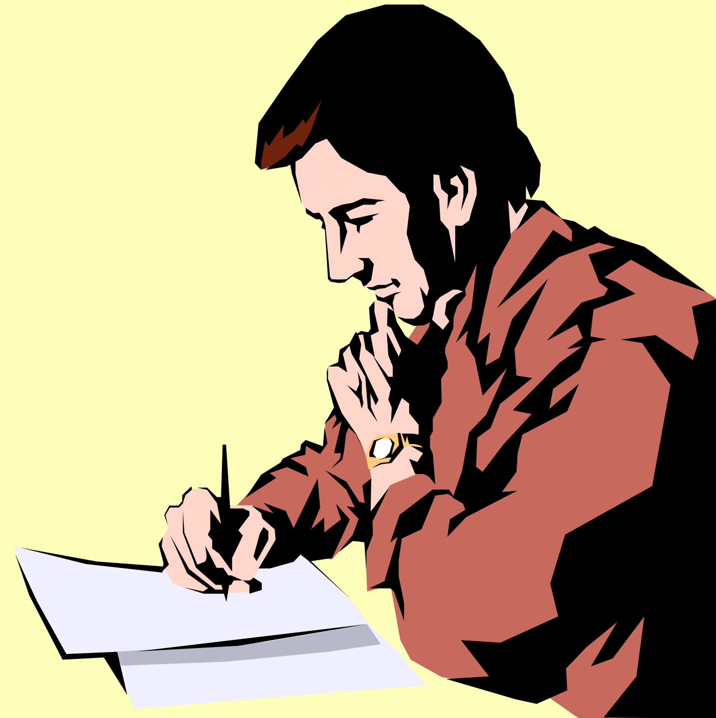
The Recording Process

- The sequence of steps in recording transactions:



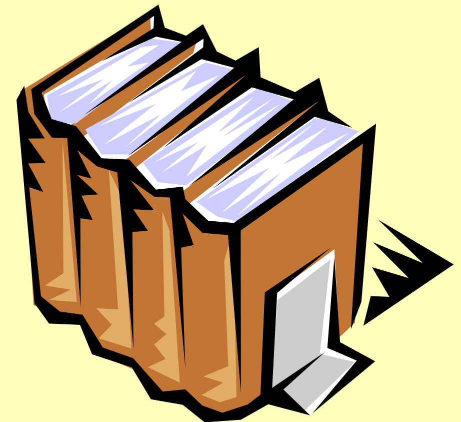
The Recording Process

- The process starts with source documents - the supporting original records of any transaction.
  - sales slip or invoice
  - check stub
  - purchase order
  - receiving report
  - cash receipts



The Recording Process

- In the second step, an analysis of the transaction is placed in the book of original entry, which is a chronological record of how the transactions affect the balances of applicable accounts.
  - The most common example is the general journal - a diary of all events in an entity's life.



The Recording Process

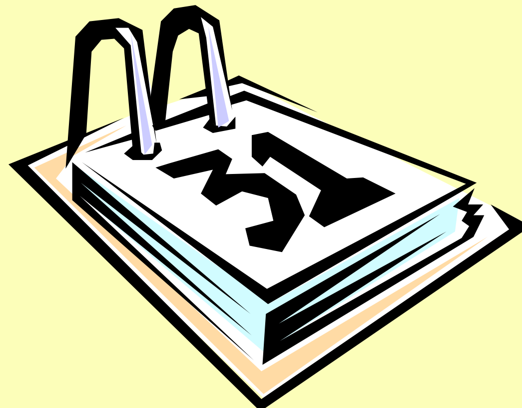
- In the third step, transactions are entered into the ledger.
  - Transactions are entered into the applicable accounts in the ledger.
  - Information is updated periodically.

The Recording Process

- In the fourth step, the trial balance is prepared.
- Trial balance - a simple listing of all accounts in the general ledger together with their balances
  - aids in verifying accuracy and in preparing the financial statements

The Recording Process

- In the final step, the financial statements are prepared.
  - Financial statements are prepared each quarter, or three months, for publicly traded companies.
  - Other companies prepare financial statements periodically to meet the needs of their users.



Journalizing Transactions

- Journalizing - the process of entering transactions into the journal
- Journal entry - an analysis of the effects of a transaction on the accounts, usually accompanied by an explanation
  - identifies the accounts to be debited and credited

Journalizing Transactions

- The conventional form for journal entries includes the following:
  - the date and identification number of the entry
  - the accounts affected and an explanation of the transaction
  - the posting reference - the number assigned to each account to which the transaction is being posted
  - the amounts that the accounts are to be debited and credited

Journalizing Transactions

- The conventional form for recording in the general journal:

Date	Entry No.	Accounts and Explanations	Post. Ref	Debit	Credit
1997					
12/31	1	Cash	100	400,000	
		Paid-in Capital	300		400,000
12/31	2	Cash	100	100,000	
		Notes Payable	202		100,000
1998					
1/2	3	Merchandise Inventory	130	150,000	
		Cash	100		150,000

Chart of Accounts

- Chart of accounts - a numbered or coded list of all account titles
  - Makes recording and understanding recording easier

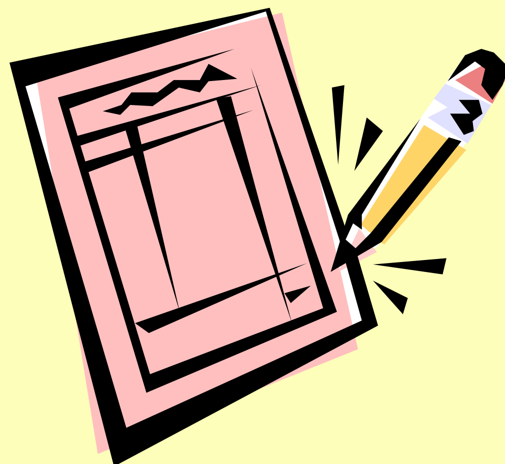
Chart of Accounts

- Example of a chart of accounts:

Account Number	Account Title	Account Number	Account Title
100	Cash	202	Notes payable
120	Accounts receivable	203	Accounts payable
130	Merchandise inventory	300	Paid-in capital
140	Prepaid rent	400	Retained income
170	Store equipment	500	Sales revenue
170A	Accumulated depreciation	600	Cost of goods sold
		601	Rent expense
		602	Depreciation expense

Posting Transactions to the Ledger

- Posting - transferring of amounts from the journal to the appropriate accounts in the ledger
  - Dates, explanations, and journal references are provided in detail on paper formatted with special columns.

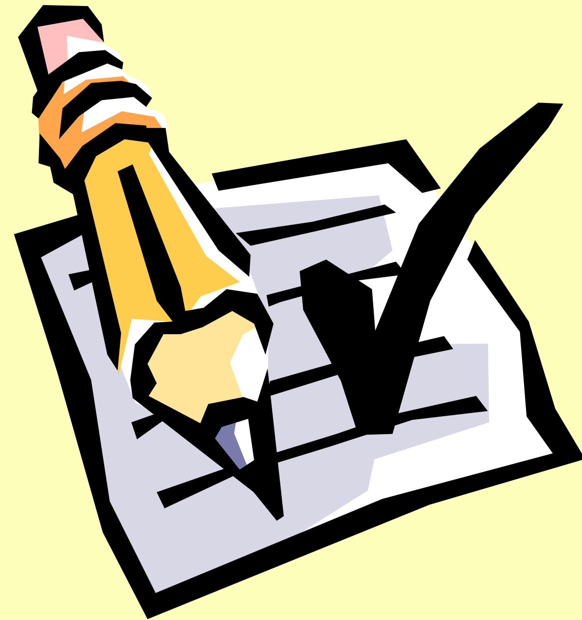


Posting Transactions to the Ledger

- Keying of entries (cross-referencing) - process of numbering or otherwise specifically identifying each journal entry and each posting
  - Transactions are posted to several different accounts, but keying (cross-referencing) allows users to find all components of a transaction in the ledger no matter where they start.

Running Balance Column

- Ledgers do not always look like T-accounts.
- One form provides columns for:
  - date
  - explanation
  - journal reference
  - debits
  - credits
  - balance



Running Balance Column

- This format is much like the check register in your checkbook.
- The running balance provides a status report for an account at a glance at any given point in time.

CASH Account No. 100

Date	Explanation	Journal Ref.	Debit	Credit	Balance
1997					
12/31		1	400,000		400,000
12/31		2	100,000		500,000
1998					
1/2		3		150,000	350,000

Analyzing, Journalizing, and Posting Transactions

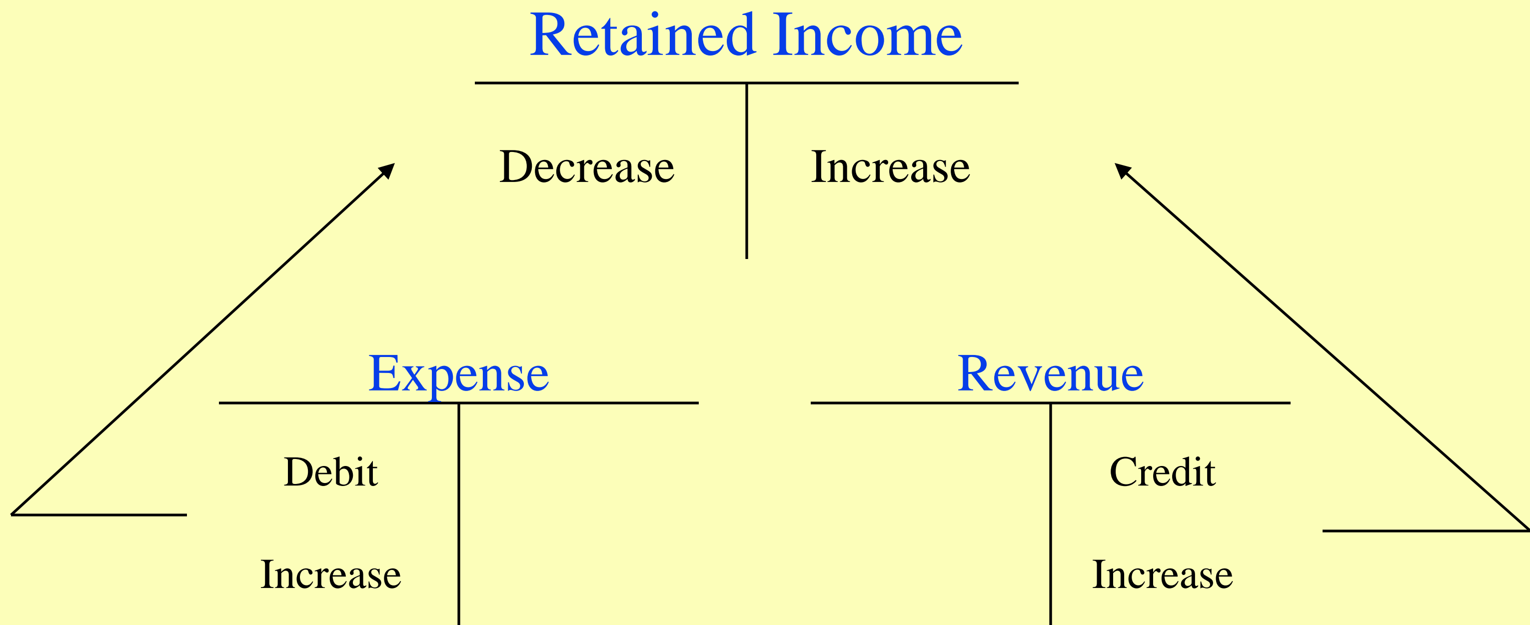
- Types of journal entries:
  - simple entry - an entry for a transaction that affects only two accounts
  - compound entry - an entry for a transaction that affects more than two accounts
- Remember: whether the entry is simple or compound, the debits and credits ***must always*** equal.

Revenue and Expense Transactions

- Retained Income is merely accumulated revenues less expenses, but we cannot just increase or decrease the retained income account directly.
  - This would make preparing the income statement very difficult
- By accumulating revenues and expenses separately, a more meaningful income statement can be easily prepared.

Revenue and Expense Transactions

- Revenue and expense accounts are a part of Retained Income.



Revenue and Expense Transactions

- Summary of revenue and expense transactions:
  - A credit to a revenue increases the revenue and increases Retained Income.
  - A debit to a revenue decreases the revenue and decreases Retained Income.

  - A credit to an expense decreases the expense and increases Retained Income.
  - A debit to an expense increases the expense and decreases Retained Income.

Revenue and Expense Transactions

- Keeping revenues and expenses in separate accounts makes the preparation of the income statement easier.
  - The income statement provides a detailed explanation of how operations caused the retained income balance to change during the period.

Prepaid Expense and Depreciation Transactions

- Prepaid expenses relate to assets having useful lives that will expire sometime in the future.
  - The expiration, or using up, of those assets is an expense.
- With depreciation, a new account, accumulated depreciation is introduced.
  - Accounts such as accumulated depreciation are called contra accounts.

Prepaid Expense and Depreciation Transactions

- Contra account - a separate but related account that offsets or is a deduction from a companion account
- Book value - the balance of an account shown on the books, net of any contra accounts
  - also known as net book value, carrying amount, or carrying value
  - The book value of equipment is its acquisition cost minus accumulated depreciation.

A Note on Accumulated Depreciation

- Accumulated depreciation - the cumulative sum of all depreciation recognized since the date of acquisition of the particular asset described
  - Financial statements usually report the original acquisition cost and the accumulated depreciation (which is known as the book value).

A Note on Accumulated Depreciation

- Why use accumulated depreciation? Why not just reduce the asset account as it expires?
  - Accountants want the acquisition cost to remain on the books, so the asset must be reduced?in some manner.
  - Accumulated depreciation is an estimate of the allocation of the cost of that asset over the period that it benefits.

Transactions in the Journal and Ledger

- Some details to remember:
  - Do not use dollar signs in either the journal or the ledger.
  - Do not use negative numbers. The effect on the account is conveyed by using either the debit or credit column.
  - For ledgers that do not have a running balance, the balances may be updated from time to time.

Preparing the Trial Balance

- Once all transactions have been posted, a trial balance is prepared.
- Trial balance - a list of all of the accounts with their balances
  - It is prepared as a test check before continuing the recording process.

Preparing the Trial Balance

- The purposes of the trial balance:
  - to help check on accuracy of posting by proving whether the total debits equal the total credits
  - to establish a convenient summary of balances in all accounts for the preparation of formal financial statements

Preparing the Trial Balance

An example of a short Trial Balance:

Account Number	Account Title	Balance	
		Debit	Credit
100	Cash	350,000	
130	Merchandise Inventory	150,000	
202	Note payable		100,000
300	Paid-in capital		400,000
		500,000	500,000

Deriving Financial Statements from the Trial Balance

- The trial balance is the starting point for the preparation of the balance sheet and the income statement.
  - The income statement accounts are summarized in an account called net income.
  - The trial balance shows the beginning balance in retained income because no changes have actually been made to the account during the year.

Deriving Financial Statements from the Trial Balance

- Note that a trial balance may balance even when there are recording errors.
  - A transaction may be recorded in the wrong amount in two different accounts.
  - A transaction may be recorded in a wrong account.
- In both situations, the total debits will still equal total credits on the trial balance.

Effects of Errors

- When a journal entry contains an error, it can be erased or crossed out *only* if the error is detected before the entry is posted to the ledgers.
- If the error is detected after posting, a correcting entry must be made.
  - The correcting entry counteracts the incorrect entry to correct the account.

Some Errors Are Counterbalanced

- Some errors are counterbalanced by offsetting errors in the next accounting period.
  - Errors misstate net income in both periods, but by the end of the second period, the errors offset each other.
  - Errors misstate the balance sheet of the first year, not the second year because the errors offset each other.
- Errors that are not counterbalanced will keep the balance sheet incorrect until correcting entries are made.

Incomplete Records

- Accountants must sometimes till in the blanks? when accounting records are lost, stolen, or destroyed.
  - T-accounts can help to recreate and calculate unknown amounts.
    - The accountant must understand the account and the amounts that flow through it in order to determine unknown amounts.
  - This process can become extremely complicated when many accounts are used.

Data Processing and Computers

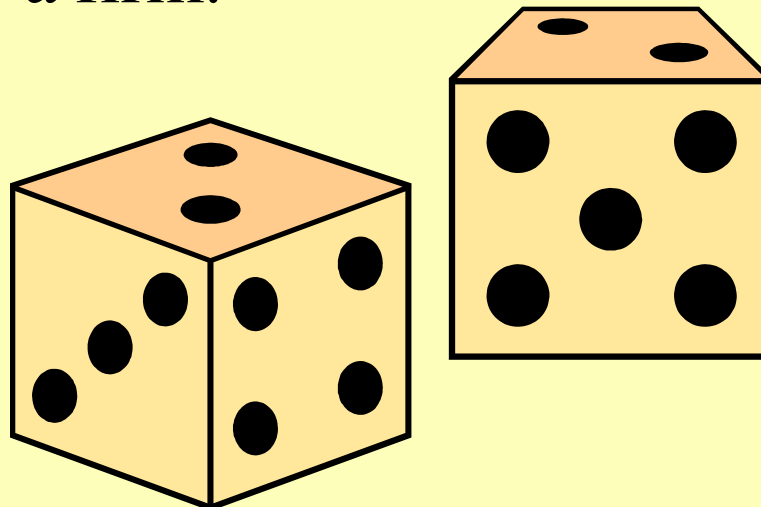
- Data processing - the totality of procedures used to record, analyze, store, and report on chosen activities
  - An accounting system is a data-processing system.
- Accounting systems are now likely to be computerized.
  - Regardless of format, information still must be entered.

Data Processing and Computers

- Advantages to computerized systems:
  - Managers can get daily financial reports.
  - Employees can enter transactions into a terminal, such as a cash register, and the computer will perform many tasks (performing credit checks, preparing monthly statements, and posting to the journals and ledgers).
  - Computers reduce the need for paperwork and data processing costs.

Debt Ratios and Interest-Coverage Ratios

- Debt ratios are used to measure the extent to which a company has used borrowing to finance its activities.
  - The more borrowing, and the less equity, the riskier it is to lend money to a firm.



Debt Ratios and Interest-Coverage Ratios

Debt-to-equity ratio

$$\text{Debt-to-equity ratio} = \frac{\text{Total liabilities}}{\text{Total shareholders' equity}}$$

Debt Ratios and Interest-Coverage Ratios

Long-term-debt-to-total-capital ratio

$$\text{Long-term-debt-to-total-capital ratio} = \frac{\text{Total long-term debt}}{\text{Total shareholders' equity} + \text{long-term debt}}$$

Debt Ratios and Interest-Coverage Ratios

Debt-to-total-assets ratio

$$\text{Debt-to total-assets ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}$$

Debt Ratios and Interest-Coverage Ratios

Interest-coverage ratio

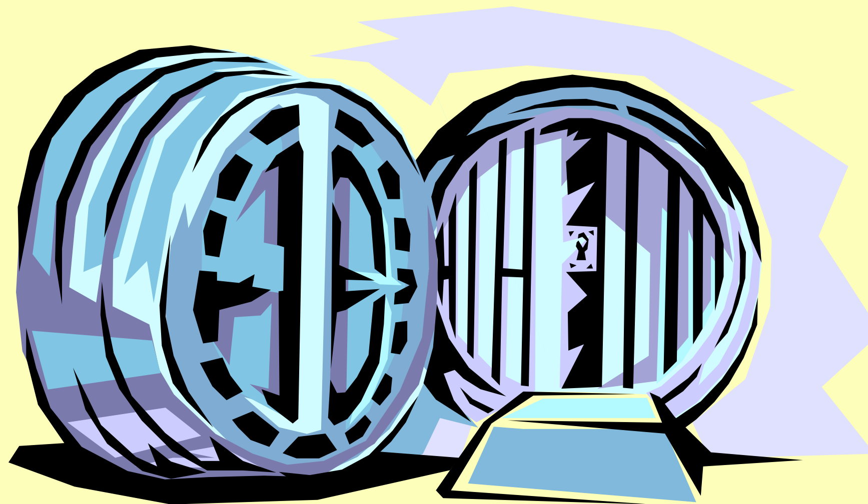
$$\text{Interest-coverage ratio} = \frac{\text{Pretax income} + \text{Interest expense}}{\text{Interest expense}}$$

Debt Ratios and Interest-Coverage Ratios

- The first three ratios are alternative ways of expressing what part of a firm resources is obtained by borrowing and what part is invested by owners.
- The interest-coverage ratio measures the firm ability to meet its interest obligations.

Chapter 4

Statement of Cash Flows



Learning Objectives

After studying this chapter, you should be able to:

- Explain the concept of the statement of cash flows.
- Classify activities affecting cash as operating, investing, or financing activities.
- Use the direct method to measure cash flow.
- Determine cash flows from income statement and balance sheet accounts.
- Use the indirect method to calculate cash flows from operations.

Learning Objectives

After studying this chapter, you should be able to:

- Relate depreciation to cash flows provided by operating activities.
- Reconcile net income to cash provided by operating activities.
- Adjust for gains and losses from fixed asset sales and debt extinguishments in the statement of cash flows.
- Use the T-account approach to prepare the statement of cash flows.

Overview of Statement of Cash Flows

- The statement of cash flows provides a thorough explanation of the changes that occurred in a firm cash balance during the entire accounting period.
  - The statement of cash flows reports cash receipts and payments of a company during a given period for operating, financing, and investing activities.
  - ash?includes cash and cash equivalents.

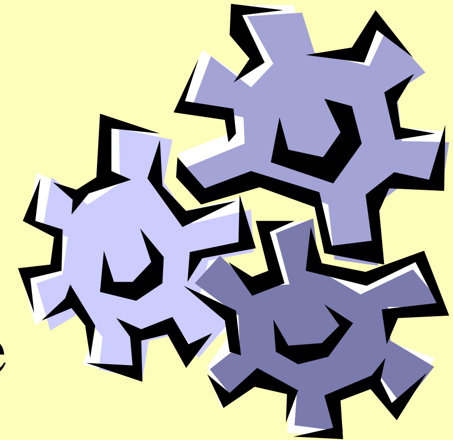
Purposes of Cash Flow Statement

The FASB requires a statement of cash flows.

- It shows the relationship of net income to changes in cash balances.
- It reports past cash flows as an aid to:
  - Predicting future cash flows
  - Evaluating the way management generates and uses cash
  - Determining a company's ability to pay interest and dividends and to pay debts when they are due
- It identifies changes in the mix of productive assets.

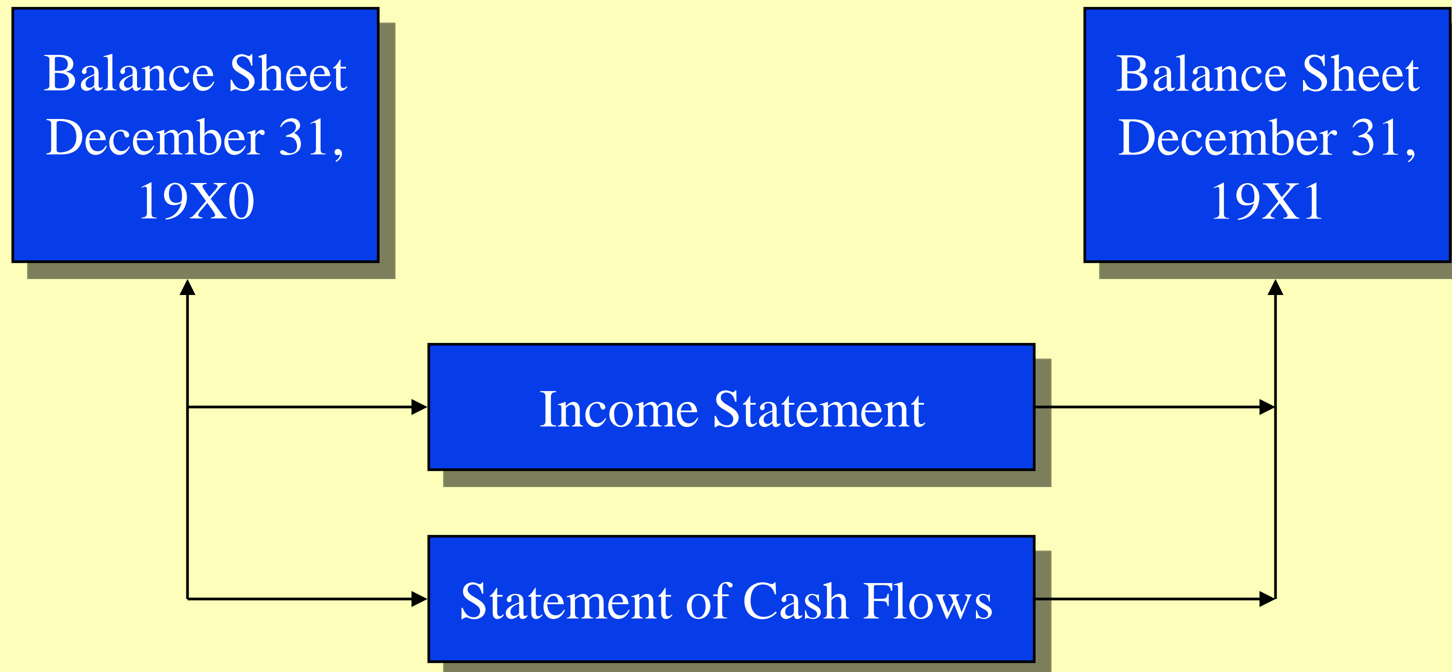
Purposes of Cash Flow Statement

- The statement of cash flows, along with the income statement, explains why balance sheet items have changed during the period.
  - The balance sheet shows the status of a company at a point in time.
  - The statement of cash flows and the income statement show the performance of a company over a period of time.



Purposes of Cash Flow Statement

- The relationship among the balance sheet, income statement, and statement of cash flows:



Typical Activities Affecting Cash

Cash is affected by two primary areas of a firm.

- Operating management - largely concerned with the major day-to-day activities that generate revenues and expenses
- Financial management - largely concerned with where to get cash and how to use cash for the benefit of the entity

Typical Activities Affecting Cash

- Operating activities - transactions that affect the income statement
- Investing activities - activities that involve (1) providing and collecting cash as a lender or as an owner of securities and (2) acquiring and disposing of plant, property, equipment, and other long-term productive assets
- Financing activities - activities that include obtaining resources as a borrower or issuer of securities and repaying creditors and owners

Typical Activities Affecting Cash

Typical operating activities

Cash inflows

- Collections from customers
- Interest and dividends collected
- Other operating receipts

Cash outflows

- Cash payments to suppliers
- Cash payments to employees
- Interest and taxes paid
- Other operating cash payments

Typical Activities Affecting Cash

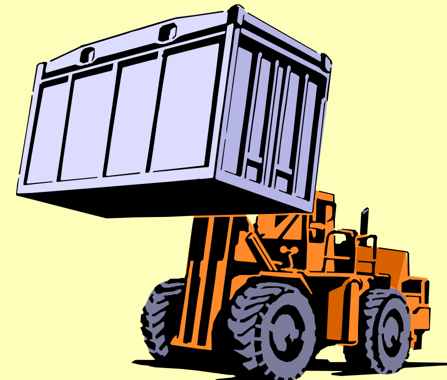
Typical investing activities

Cash inflows

- Sale of property, plant, and equipment
- Sale of securities that are not cash equivalents
- Receipt of loan repayments

Cash outflows

- Purchase of property, plant, and equipment
- Purchase of securities that are not cash equivalents
- Making loans



Typical Activities Affecting Cash

Typical financing activities

Cash inflows

- Borrowing cash from creditors
- Issuing equity securities
- Issuing debt securities

Cash outflows

- Repayment of amounts borrowed
- Repurchase of equity shares (including treasury stock)
- Payment of dividends

Approaches to Calculating the Cash Flow from Operating Activities

Two approaches may be used to compute cash flow from operating activities.

- Direct method - the method that calculates net cash provided by operating activities as collections minus operating distributions
- Indirect method - the method that adjusts the accrual net income to reflect only cash receipts and outlays
  - Under either method, the final cash flow from operating activities will be the same.

Approaches to Calculating the Cash Flow from Operating Activities

- Under the direct method, income statement amounts are adjusted for changes in related asset and liability accounts.
  - Each revenue and expense account calculated under the accrual method is adjusted to reflect the actual cash paid or received.
- Under the indirect method, *net income* is adjusted for changes in related asset and liability accounts, rather than adjusting each revenue and expense account that affects net income.

Approaches to Calculating the Cash Flow from Operating Activities

- The FASB prefers the direct method because it shows operating cash receipts and payments in a way that is easy for investors to understand.
- The indirect method is more common because many people are used to thinking in terms of net income.
  - The indirect method starts with net income and adjusts for non-cash transactions.

Transactions Affecting Cash Flows from All Sources

Effects of operating transactions on cash:

Transaction	Effect
Sales of goods and services for cash	+
Sales of goods and services on credit	0
Receive dividends or interest	+
Collection of accounts receivable	+
Recognize cost of goods sold	0
Purchase inventory for cash	-
Purchase inventory on credit	0
Pay trade accounts payable	-

??denotes that the transaction has no effect on cash.

Transactions Affecting Cash Flows from All Sources

Effects of operating transactions on cash:

Transaction	Effect
Accrue operating expenses	0
Pay operating expenses	-
Accrue taxes	0
Pay taxes	-
Accrue interest	0
Pay interest	-
Prepay expenses for cash	-
Write off prepaid expenses	0
Charge depreciation or amortization	0

??denotes that the transaction has no effect on cash.

Transactions Affecting Cash Flows from All Sources

Effects of investing activities on cash:

- Purchase fixed assets for cash -
- Purchase fixed assets by issuing debt 0
- Sell fixed assets +
- Purchase securities that are not cash equivalents -
- Sell securities that are not cash equivalents +
- Make a loan -

??denotes that the transaction has no effect on cash.

Transactions Affecting Cash Flows from All Sources

Effects of financing transactions on cash:

Transaction	Effect
Increase long-term or short-term debt	+
Reduce long-term or short-term debt	-
Sell common or preferred shares	+
Repurchase or retire common or preferred shares	-
Purchase treasury stock	-
Pay dividends	-
Convert debt to common stock	0
Reclassify long-term debt to short-term debt	0

??denotes that the transaction has no effect on cash.

Cash Flow and Earnings

- The income statement and the statement of cash flows each fill critical information needs.
  - The income statement shows how a company's owners/equity changes as a result of operations.
    - It matches revenues and expenses using the accrual concept and provides a measure of economic activity.
  - The statement of cash flows focuses on the net cash flow from operating activities.

A Detailed Example of the Direct Method

ECO-BAG COMPANY
Balance Sheet (in thousands)
December 31, 19X2 and 19X1

	19X2	19X1
Current assets:		
Cash	$ 16	$ 25
Accounts receivable	45	25
Inventory	100	60
Total current assets	$161	$110
Fixed assets, gross	581	330
Accum. depreciation	(101)	(110)
Net	480	220
Total assets	$641	$330

	19X2	19X1
Current liabilities:		
Accounts payable	$ 74	$ 6
Wages and salaries payable	25	4
Total current liabilities	99	10
Long-term debt	125	5
Stockholders/equity	417	315
Total liabilities and stockholders/equity	$641	$330

A Detailed Example of the Direct Method

ECO-BAG COMPANY
Statement of Income (in thousands)
for the year ended December 31, 19X2

Sales		$200
Costs and expenses:		
Cost of goods sold	$100	
Wages and salaries	36	
Depreciation	17	
Interest	4	
Total costs and expenses		157
Income before income taxes		43
Income taxes		20
Net income		$ 23

A Detailed Example of the Direct Method

ECO-BAG COMPANY
Statement of Cash Flows (in thousands)
For the year ended December 31, 19X2

CASH FLOWS FROM OPERATING ACTIVITIES:		
Cash collections from customers		**$ 180**
Cash payments:		
To suppliers	**$ 72**	
To employees	**15**	
For interest	**4**	
For taxes	**20**	
Total cash payments		**(111)**
Net cash provided by operating activities		**$ 69**

A Detailed Example of the Direct Method

ECO-BAG COMPANY
Statement of Cash Flows (in thousands)
For the year ended December 31, 19X2
(continued)

CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of fixed assets	**$(287)**	
Proceeds from sale of fixed assets	**10**	
Net cash used by investing activities		**(277)**

A Detailed Example of the Direct Method

ECO-BAG COMPANY
Statement of Cash Flows (in thousands)
For the year ended December 31, 19X2
(continued)

CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from issue of long-term debt	$120	
Proceeds from issue of common stock	98	
Dividends paid	(19)	
Net cash provided by financing activities		199
Net decrease in cash		(9)
Cash, December 31, 19X1		25
Cash, December 31, 19X2		$ 16
		========

A Detailed Example of the Direct Method

- The first step in developing the statement of cash flows is to compute the amount of the change in cash from the beginning to the end of the period.

  - This calculation is often included at the bottom of the statement.
  - The net change is added to the beginning balance to compute the ending balance.

A Detailed Example of the Direct Method

- In this example, cash decreases by $9,000.
  - Operating activities contribute $69,000 cash during the period.
  - Investing activities use $277,000 cash during the period.
  - Financing activities contribute $199,000 cash during the period.
- This example shows how a firm may have net income but still have a decline in cash.

Changes in the Balance Sheet Equation

- The balance sheet equation can be rearranged as follows:

$$\text{Cash} = \text{Liabilities} + \text{Equity} - \text{Noncash Assets}$$

or

$$\Delta\text{Cash} = \Delta L + \Delta SE - \Delta NCA$$

Any change (Δ) in a noncash item (liability, equity, or asset) must be accompanied by a change in cash.

- If a noncash item changes, what affect does it have on cash?

Changes in the Balance Sheet Equation

- The statement of cash flows focuses on the change in the non-cash accounts as a way of explaining how and why the amount of cash changes during a given period.

Change in cash = Change in all non-cash accounts

or

What happened to cash = Why it happened

Computing Cash Flows from Operating Activities

- Collections from sales to customers are usually the largest source of operating cash inflows.
- Disbursements for purchases of goods to be sold and operating expenses are usually the largest sources of operating cash outflows.
- Operating cash inflows minus operating cash outflows equals the net cash provided by, or used by, operating activities.

Working from Income Statement Amounts to Cash Amounts

- Accountants often compute collections and other operating cash flow items from figures in the income statement.
  - Many accountants use the balance sheet along with additional information and familiarity with the causes of certain changes in balance sheet amounts to compute the cash flow items.
  - However, many accounting systems are not capable of providing detailed information needed for that method.

Working from Income Statement Amounts to Cash Amounts

- In our example, $180,000 was collected from customers. That amount is determined as follows:

	Sales	**$200,000**
+	**Beginning accounts receivable**	**25,000**
	Potential collections	**$225,000**
–	**Ending accounts receivable**	**45,000**
	Cash collections from customers	**$180,000**

or

Sales	**$200,000**
Decrease (increase) in accounts receivable	**(20,000)**
Cash collections from customers	**$180,000**

- Note that the increase in A/R means that sales > collections.

Working from Income Statement Amounts to Cash Amounts

- The difference between cost of goods sold and cash payments to suppliers can be determined by looking at inventory and accounts payable.

	Ending inventory	$100,000
+	Cost of goods sold	100,000
	Inventory to account for	$200,000
–	Beginning inventory	(60,000)
	Purchases of inventory	$140,000

	Beginning trade accounts payable	$ 6,000
+	Purchases of inventory	140,000
	Total amount to be paid in cash	$146,000
–	Ending trade accounts payable	(74,000)
	Accounts paid in cash	$ 72,000

Working from Income Statement Amounts to Cash Amounts

- The effects of inventory and accounts payable on the previous slide can be combined into one calculation as follows:

Cost of goods sold	**$100,000**
Increase (decrease) in inventory	**40,000**
Decrease (increase) in trade accounts payable	**(68,000)**
Payments to suppliers	**$ 72,000**

Working from Income Statement Amounts to Cash Amounts

- Cash payments to employees can be determined by examining wages and salaries payable.

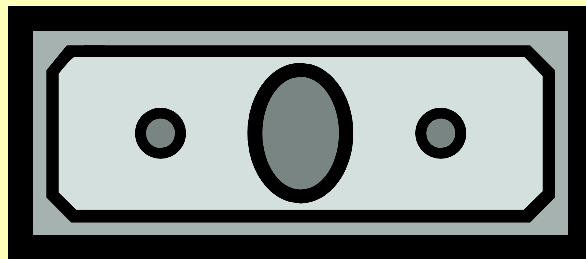
	Beginning wages and salaries payable	**$ 4,000**
+	**Wages and salaries expense**	**36,000**
	Total to be paid in cash	**$ 40,000**
–	**Ending wages and salaries payable**	**(25,000)**
	Cash payments to employees	**$ 15,000**

or

Wages and salaries expense	**$ 36,000**
Decrease (increase) in wages and salaries payable	**(21,000)**
Cash payments to employees	**$ 15,000**

Working from Income Statement Amounts to Cash Amounts

- Notice in this example that both interest payable and income taxes payable were zero at the beginning and end of the period.
  - This means that the entire amounts of interest expense and income tax expense were incurred and paid during the period, so the cash flows are the amounts of the expenses, $4,000 and $20,000 respectively.

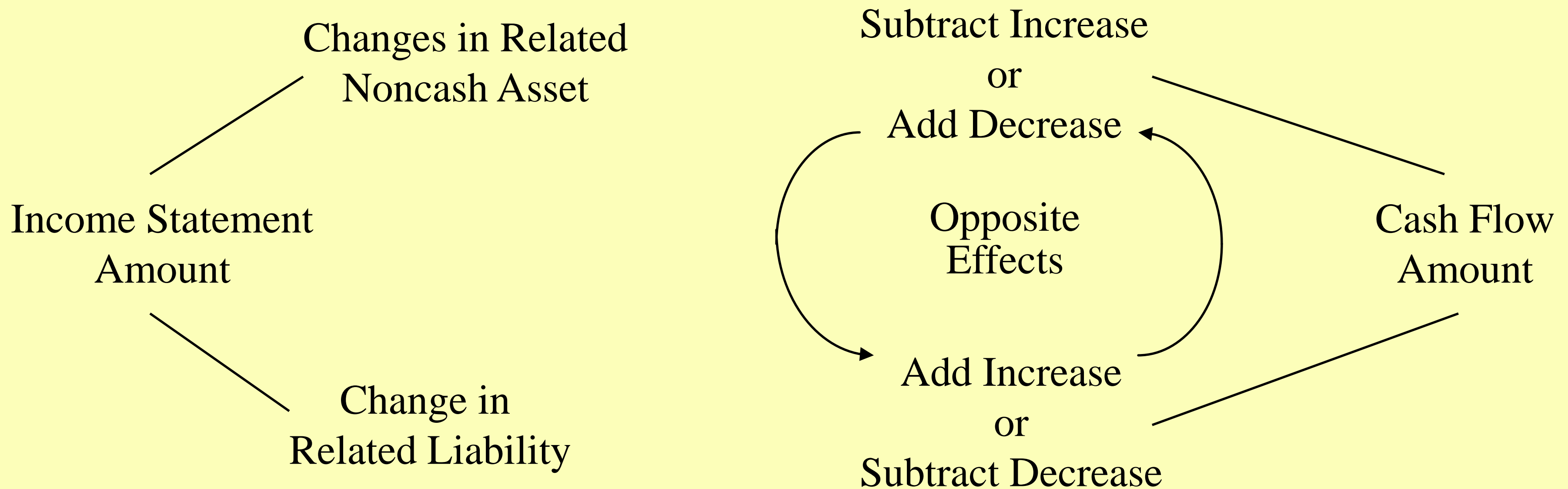


Comparison of Income Statement and Cash Flow Statement

- Most accrual based revenues and expenses are naturally linked to related asset or liability accounts.
  - The cash effects on the income statement accounts are affected by changes in their related balance sheet accounts.

Comparison of Income Statement and Cash Flow Statement

- A summary of the balance sheet approach:



Comparison of Income Statement and Cash Flow Statement

- Remember, to determine whether to add or subtract an increase or a decrease, any change in a noncash asset, liability, or equity account must be accompanied by change in cash that keeps the balance sheet equation in balance.

$$\Delta Cash = \Delta L + \Delta SE - \Delta NCA$$

Comparison of Income Statement and Cash Flow Statement

- Common adjustments to convert income statement amounts to cash flow amounts:

Income statement Amount	***Related Noncash Asset***	***Related Liability***
Sales revenue	Accounts receivable	Unearned revenue
Cost of goods sold	Merchandise inventory	Accounts payable
Wages expense	Prepaid wages	Wages payable
Rent expense	Prepaid rent	Rent payable
Insurance expense	Prepaid insurance	Insurance payable
Depreciation expense	Property, plant, & equipment	
Amortization expense	Intangible assets	

Investing and Financing Activities

- Cash flows from investing activities - arise from the sale and purchase of property, plant, and equipment and other long-lived assets

Investing and Financing Activities

- Cash flows from financing activities - arise from issuing debt or equity or repurchasing debt or equity
- The idea behind the investing and financing activities sections is that long-lived assets are investments; sources of capital finance the purchase of these investments.

Investing and Financing Activities

- Analysis of balance sheet items for investing and financing activities:
  - Increases in cash (cash inflows) stem from
    - Increases in liabilities or stockholders/equity
    - Decreases in non-cash assets
  - Decreases in cash (cash outflows) stem from
    - Decreases in liabilities or stockholders/equity
    - Increases in non-cash assets

Investing and Financing Activities

- Changes in fixed assets can be explained by:
  - Assets acquired
  - Assets disposed of
  - Depreciation expense

Increase in net plant assets = Acquisitions - Disposals - Depreciation

Investing and Financing Activities

- Changes in stockholders/equity can be explained by:
  - New issuances of stock
  - Net income
  - Dividends

Increase in stockholders equity = NeissuaNeitcoDievi

Non-cash Investing and Financing Activities

- Non-cash items do not affect cash, so they do not belong in the statement of cash flows.
- Because non-cash transactions are similar to cash transactions, readers of the statements of cash flows should be informed of such transactions.
  - Such items must be included in a separate schedule accompanying the statement of cash flows.

Preparing a Statement of Cash Flows - The Indirect Method

- In calculating cash flows from operating activities, the alternative to the direct method is the indirect method.
  - The indirect method is generally more convenient.
  - The indirect method reconciles accrual net income to cash flows from operating activities.

Reconciliation of Net Income to Net Cash Provided by Operations

- The indirect method begins with net income.
  - Additions or deductions are made for changes in related asset or liability accounts (items that affect net income and net cash flow differently).
- If a company uses the direct method, the FASB requires such a reconciliation using the indirect method.

Reconciliation of Net Income to Net Cash Provided by Operations

Items included in the reconciliation:

- Depreciation is added back to net income because it was deducted in arriving at net income, but it does not represent a use of cash.
- Increases in noncash current *assets* result in less cash flow from operations, so such increases are deducted from net income.
- Decreases in noncash current *assets* result in more cash flow from operations, so such decreases are added back to net income

Reconciliation of Net Income to Net Cash Provided by Operations

Items included in the reconciliation (continued):

- Increases in current *liabilities* result in more cash flow from operations, so such increases are added back to net income.
- Decreases in current *liabilities* result in less cash flow from operations, so such decreases are deducted from net income.

Reconciliation of Net Income to Net Cash Provided by Operations

- The general rules for additions and deductions to adjust net income using the indirect method are the same as those for adjusting line items on the income statement under the direct method.
- Remember:

$$\Delta Cash = \Delta L + \Delta SE - \Delta NCA$$

Reconciliation of Net Income to Net Cash Provided by Operations

- The cash flows from operating activities for Eco-Bag Company:

Net income		**$23**
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation	**$ 17**	
Net increase in accounts receivable	**(20)**	
Net increase in inventory	**(40)**	
Net increase in accounts payable	**68**	
Net increase in wages and salaries payable	**21**	
Total additions and deductions	**46**	
Net cash provided by operating activities	**$ 69**	
	=======	

Depreciation and Cash Flows

- As stated earlier, depreciation is an allocation of historical cost to expense over a period of time.
- Depreciation does not entail a current outflow of cash. It is a non-cash expense.
- Depreciation is added back to net income to compute cash flows from operating activities simply to cancel its deduction in calculating net income.

Reconciling Items

ADD CHARGES (EXPENSES) NOT REQUIRING CASH

- Depreciation
- Depletion
- Amortization of Assets
- Non-operating Losses
- Amortization of Bond Discount

DEDUCT CREDITS TO INCOME (REVENUES) NOT PROVIDING CASH

- Non-operating Gains
- Amortization of Bond Premium

ADJUST FOR CHANGES IN CURRENT ASSETS AND LIABILITIES RELATING TO OPERATING ACTIVITIES

Changes in Non-cash Current Assets	**Changes in Non-cash Current Liabilities**
deduct increases	add increases
add decreases	deduct decreases

Reconciling Items

- Non-operating gains and losses are gains and losses that are not part of the normal ongoing activities of the business.
  - Gains must be deducted from net income
  - Losses must be added back to net income

Reconciling Items

Jamison Corporation sells a piece of land for $50,000 in cash. The land originally cost $75,000. The loss on the sale is $25,000. How does this transaction affect the operating activities section?

Reconciling Items

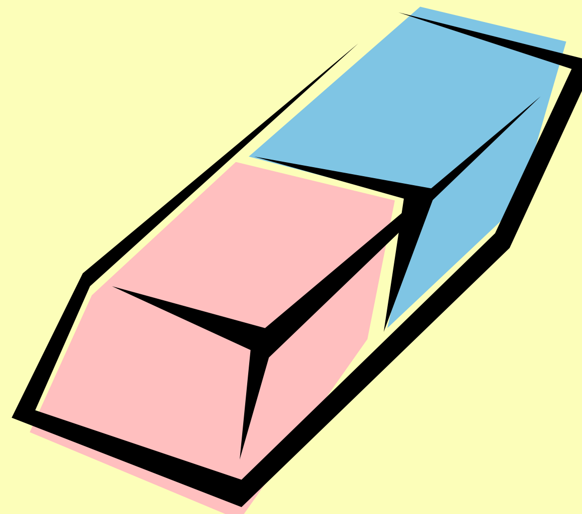
- Net income includes the loss of $25,000. The cash flow from the sale is $50,000, but this is not cash from operations.
- The $50,000 cash flow from the sale is included in the investing activities section (sale of long-lived asset).
- The $25,000 is added back to net income in the reconciliation to avoid including elements of the sale in two places on the statement of cash flows.

More on the Statement of Cash Flows

- Two items that occur frequently on the statement of cash flows are:
  - Gains or losses on disposal of fixed assets
  - Gains or losses on early retirement of debt

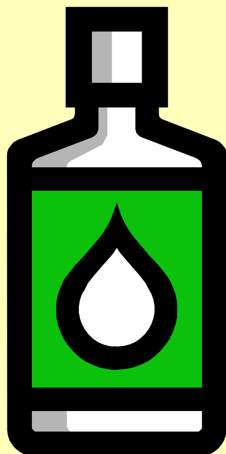
Gain or Loss on Disposal of Fixed Assets

- As stated before, gains and losses must be deducted or added to net income to arrive at net cash flows from operating activities.
  - They are non-operating items that are included in net income, so they must be removed.



Gain or Loss on Early Retirement of Debt

- Issuing and retiring debt are financing activities. Any gain or loss on early retirement is included in net income.
  - These gains or losses must be removed from net income in essentially the same way as gains or losses from sales of fixed assets.



T-Account Approach to Statement of Cash Flows

- When complicated or numerous activities are encountered while trying to prepare the statement of cash flows, the T-account approach may be easier to use.
  - The T-account approach is an easier way of ensuring that all the appropriate activities are identified and treated properly.

T-Account Approach to Statement of Cash Flows

- The T-account approach is merely another way of applying the balance sheet equation.
- This method again focuses on the changes in the non-cash accounts to explain why cash changed.