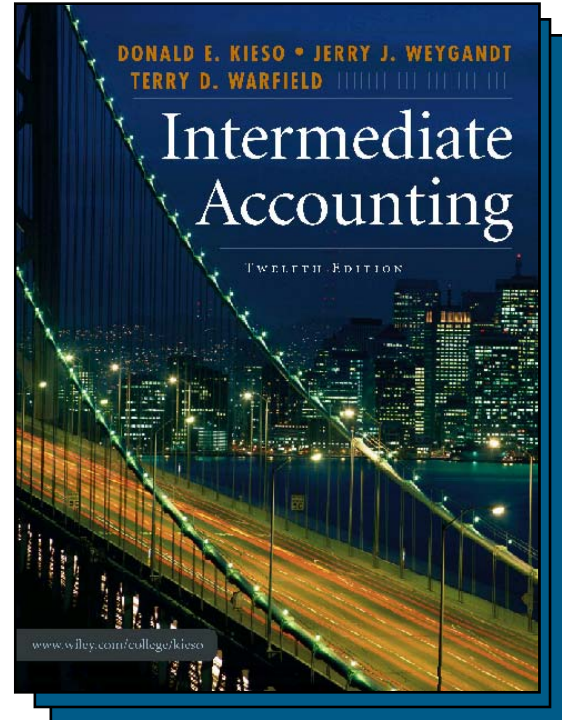
Financial Accounting and Accounting Standards

Chapter 1

Intermediate Accounting,
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Chapter 1 Learning Objectives

1. Identify the major financial statements and other means of financial reporting.
2. Explain how accounting assists in the efficient use of scarce resources.
3. Describe some of the challenges facing accounting.
4. List the objectives of financial reporting.
5. Explain the need for accounting standards.
6. Identify the major policy-setting bodies and their role in the standard-setting process.
7. Explain the meaning of generally accepted accounting principles.
8. Describe the impact of user groups on the standard-setting process.
9. Understand issues related to ethics and financial accounting.

Financial Accounting and Accounting Standards

Financial Statements and Financial Reporting

- Accounting and Capital Allocation
- Challenges
- Objectives
- The Need to Develop Standards

Parties Involved in Standard Setting

- Securities and Exchange Commission (SEC)
- American Institute of Certified Public Accountants (AICPA)
- Financial Accounting Standards Board (FASB)
- Governmental Accounting Standards Board (GASB)
- Changing Role of the AICPA

Generally Accepted Accounting Principles

Issues in Financial Reporting

- Political Environment
- The Expectations Gap
- International Accounting Standards
- Ethics

Characteristics of Accounting

Essential characteristics of accounting are:

(1) the identification, measurement, and communication of financial information about

(2) economic entities to

(3) interested parties.

Characteristics of Accounting

Economic Entity	Financial Statements	Additional Information
Financial Information	Balance Sheet	President's letter
Accounting?	Income Statement	Prospectuses,
Identifies and Measures and Communicates	Statement of Cash Flows	SEC Reporting
	Statement of Owners' or Stockholders' Equity	News releases
	Note Disclosures	Forecasts
		Environmental Reports
		Etc.
	GAAP	**Not GAAP**

LO 1 Identify the major financial statements and other means of financial reporting..

Characteristics of Accounting

Review

What is the purpose of information presented in notes to the financial statements?

a. To provide disclosure required by generally accepted accounting principles.

b. To correct improper presentation in the financial statements.

c. To provide recognition of amounts not included in the totals of the financial statements.

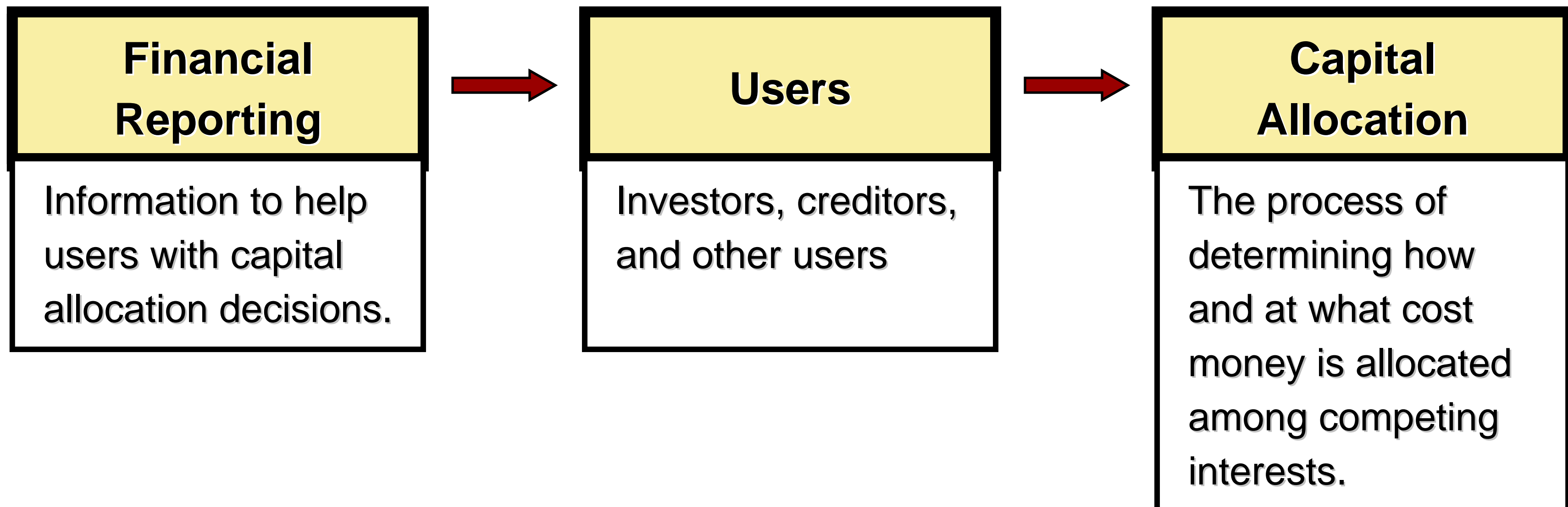
d. To present management's responses to auditor comments.

LO 1 Identify the major financial statements and other means of financial reporting..

Accounting and Capital Allocation

Resources are limited. Efficient use of resources often determines whether a business thrives.

Illustration 1-1 Capital Allocation Process



LO 2 Explain how accounting assists in the efficient use of scare resources.

Accounting and Capital Allocation

Review

An effective process of capital allocation is critical to a healthy economy, which

a. promotes productivity.

b. encourages innovation.

c. provides an efficient and liquid market for buying and selling securities.

d. All of the above.

LO 2 Explain how accounting assists in the efficient use of scare resources.

Challenges Facing Financial Accounting

- Non-financial Measurements
- Forward-looking Information
- Soft Assets
- Timeliness

LO 3 Describe some of the challenges facing accounting.

Objectives of Financial Accounting

Financial reporting should provide information:

(a) that is useful to present and potential investors and creditors and other users in making rational investment, credit, and similar decisions.

(b) to help present and potential investors and creditors and other users in assessing the amounts, timing, and uncertainty of prospective cash receipts.

(c) about the economic resources of an enterprise, the claims to those resources, and the effects of transactions, events, and circumstances that change its resources and claims to those resources.

LO 4 List the objectives of financial reporting.

Objectives of Financial Accounting

Review

All of the following are objectives of financial reporting except to provide information

a. About enterprise resources, claims to those resources, and changes in them.

b. That is useful in investment and credit decisions.

c. About the management and major shareholders of an enterprise.

d. That is useful in assessing cash flow prospects.

Need to Develop Standards

Various users need financial information

Financial Statements

- Balance Sheet
- Income Statement
- Statement of Stockholders' Equity
- Statement of Cash Flows
- Note Disclosure

The accounting profession has attempted to develop a set of standards that are generally accepted and universally practiced.

Generally Accepted Accounting Principles (GAAP)

LO 5 Explain the need for accounting standards.

Parties Involved in Standard Setting

Four organizations:

- Securities and Exchange Commission (SEC)
- American Institute of Certified Public Accountants (AICPA)
- Financial Accounting Standards Board (FASB)
- Government Accounting Standards Board (GASB)

LO 6 Identify the major policy-setting bodies and their role in the standard-setting process.

Securities and Exchange Commission

- Established by federal government
- Accounting and reporting for public companies

Securities Act of 1933	Securities Act of 1934

- Encouraged private standard-setting body
- SEC requires public companies to adhere to GAAP
- SEC Oversight
- Enforcement Authority

LO 6 Identify the major policy-setting bodies and their role in the standard-setting process.

American Institute of CPAs

- National professional organization
- Established the following:

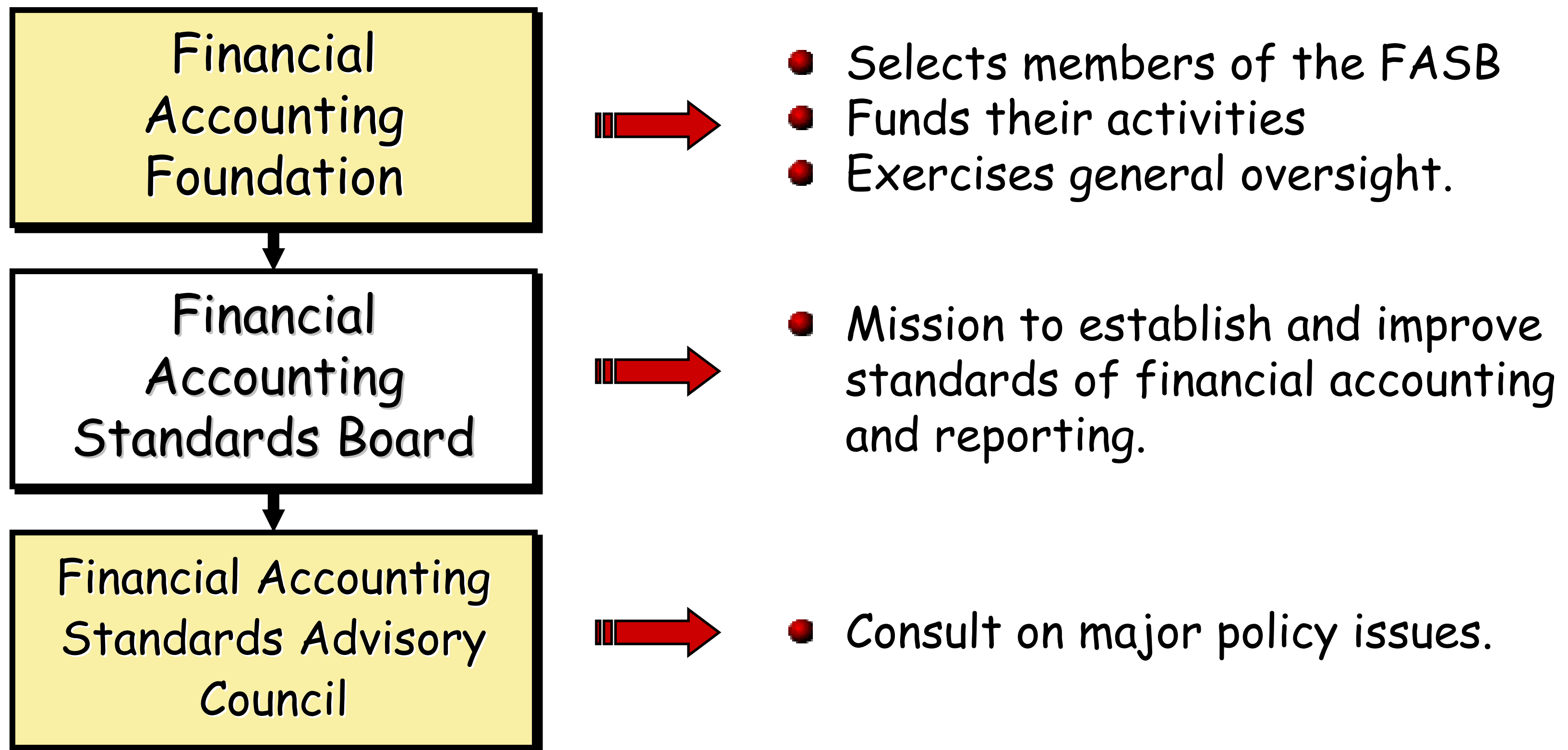
Committee on Accounting Procedures	Accounting Principles Board
• 1939 to 1959 • Issued 51 Accounting Research Bulletins (ARBs) • Problem-by-problem approach failed	• 1959 to 1973 • Issued 31 Accounting Principle Board Opinions (APBOs) • Wheat Committee recommendations adopted in 1973

AICPA http://www.aicpa.org/

LO 6

Financial Accounting Standards Board

Wheat Committee's recommendations resulted in the creation of a the Financial Accounting Standards Board in 1973.



LO 6 Identify the major policy-setting bodies and their role in the standard-setting process.

Financial Accounting Standards Board

Missions is to establish and improve standards of financial accounting and reporting. Differences between FASB and APB include:

- Smaller Membership
- Full-time, Remunerated Membership
- Greater Autonomy
- Increased Independence
- Broader Representation

http://www.fasb.org/

LO 6 Identify the major policy-setting bodies and their role in the standard-setting process.

Financial Accounting Standards Board

Review

The first step taken in the establishment of a typical FASB statement is

a. The board conducts research and analysis and a discussion memorandum is issued.

b. A public hearing on the proposed standard is held.

c. The board evaluates the research and public response and issues an exposure draft.

d. Topics are identified and placed on the board's agenda.

Due Process

FASB relies on two basic premises:

(1) Responsive to entire economic community

(2) Operate in full view of the public

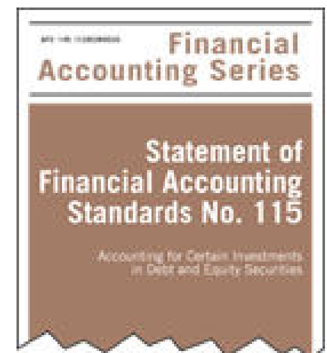
Step 1 = Topic placed on agenda

Step 2 = Research conducted and Discussion Memorandum issued.

Step 3 = Public hearing

Step 4 = Board evaluates research, public response and issues Exposure Draft

Step 5 = Board evaluates responses and issues final Statement of Financial Accounting Standard



LO 6 Identify the major policy-setting bodies and their role in the standard-setting process.

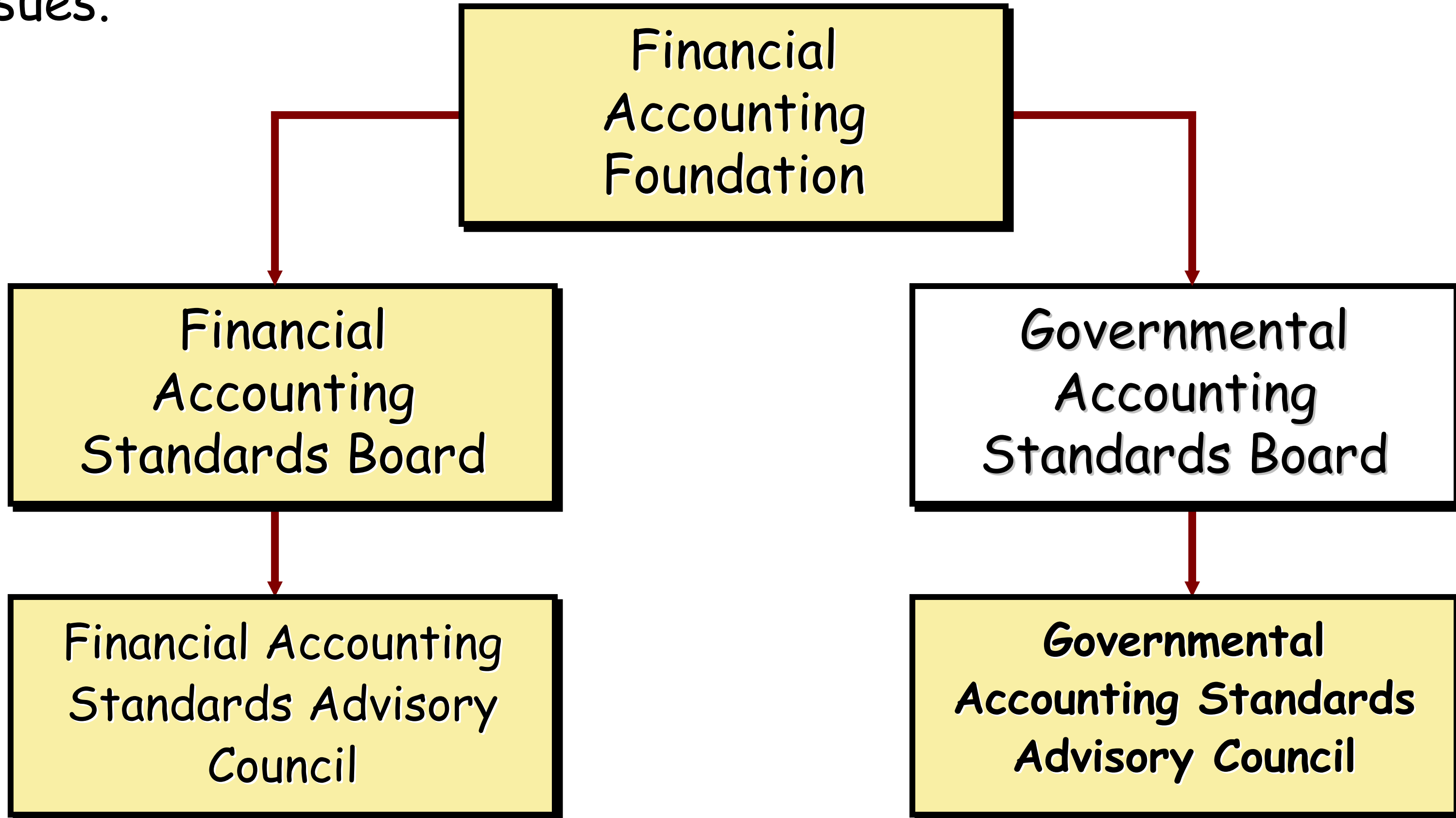
Types of Pronouncements

Issued by the FASB:

- Standards, Interpretations, and Staff Positions.
- Financial Accounting Concepts
- Emerging Issues Task Force Statements

Governmental Accounting Standards Board

Created in 1984 to address state and local governmental reporting issues.



http://www.gasb.org/

Generally Accepted Accounting Principles

Those principles that have **substantial authoritative support**.

Major sources of GAAP are:

- FASB Standards, Interpretations, and Staff Positions
- APB Opinions
- AICPA Accounting Research Bulletins

LO 7 Explain the meaning of generally accepted accounting principles.

House of GAAP

AICPA Accounting Interpretations

FASB Implementation Guides

Recognized Industry Practices

Category D (Least Authoritative)

FASB Emerging Issues Task Force

AICPA AcSEC Practice Bulletins

Category C

FASB Technical Bulletins

AICPA Industry Audit and Accounting Guides

AICPA Statements of Position

Category B

FASB Statements, Interpretations, and Staff Positions

APB Opinions

CAP Accounting Research Bulletins

Category A (Most Authoritative)

Generally Accepted Accounting Principles

Review

Which of the following accounting pronouncements is the most authoritative?

a. FASB Statement of Financial Accounting Concepts.

b. FASB Technical Bulletins.

c. AICPA Accounting Principles Board Opinion.

d. AICPA Statement of Position.

Issues in Financial Reporting

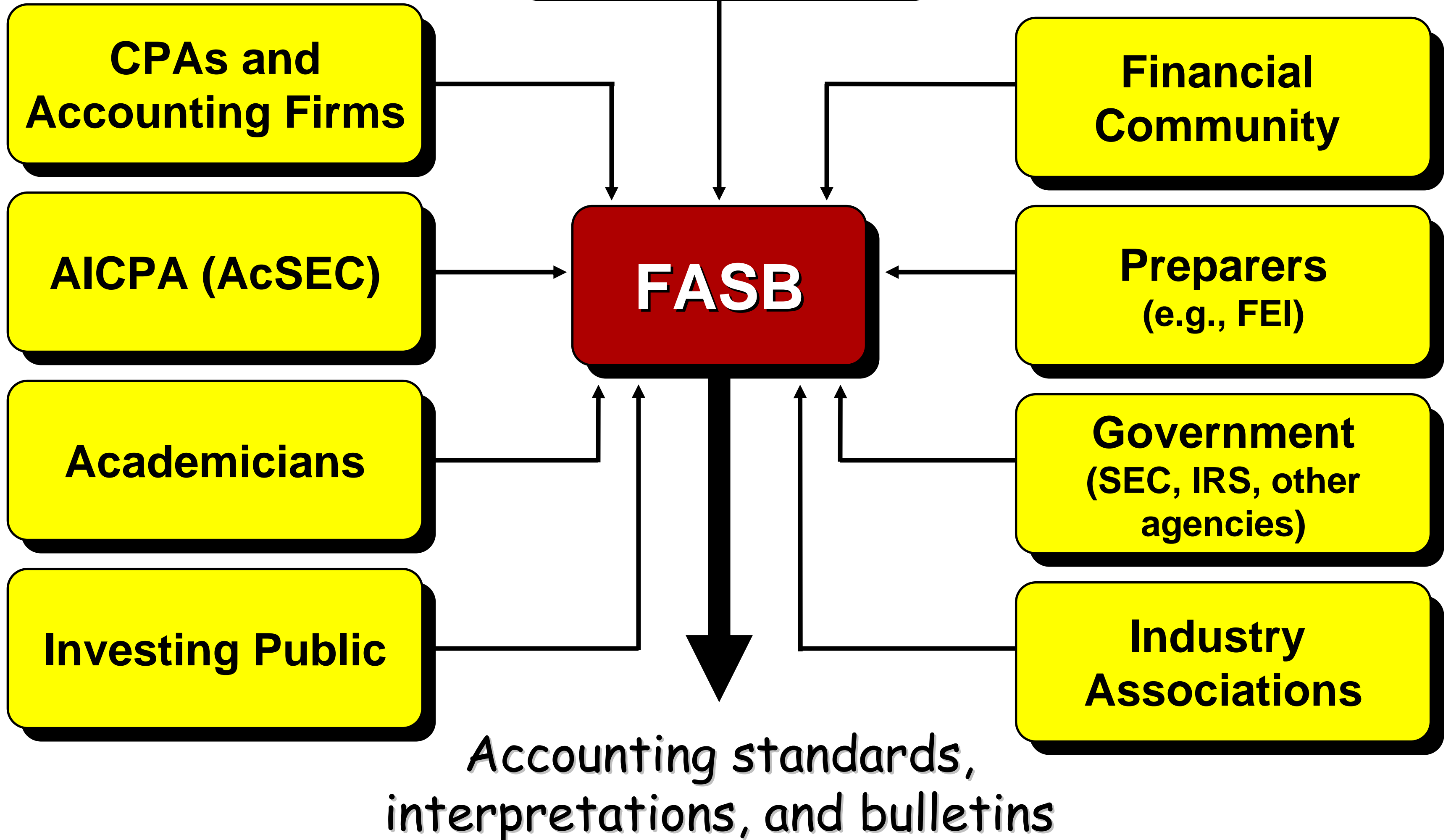
Standard Setting in a Political Environment

Accounting standards are as much a product of political action as they are of careful logic or empirical findings.

LO 8 Describe the impact of user groups on the standard-setting process.

Standard Setting

Illustration 1-5 User Groups that Influence Accounting Standards



LO 8 Describe the impact of user groups on the standard-setting process.

Issues in Financial Reporting

Review:

All those who serve on the FASB must be Certified Public Accountants.

False

Issues in Financial Reporting

Expectation Gap

What the public thinks accountants should do vs. what accountants think they can do.

- Difficult to close
- Sarbanes-Oxley Act (2002)
- Public Company Accounting Oversight Board (PCAOB)

LO 8 Describe the impact of user groups on the standard-setting process.

Issues in Financial Reporting

International Accounting Standards

Two sets of standards accepted for international use:

- U.S. GAAP, issued by the FASB
- International Financial Reporting Standards (IFRS), issued by the IASB

FASB and IASB recognize that global markets will best be served if only one set of GAAP is used.

LO 8 Describe the impact of user groups on the standard-setting process.

Issues in Financial Reporting

Ethics in the Environment of Financial Accounting

In accounting, we frequently encounter ethical dilemmas.

- GAAP does not always provide an answer
- Doing the right thing is not always easy or obvious

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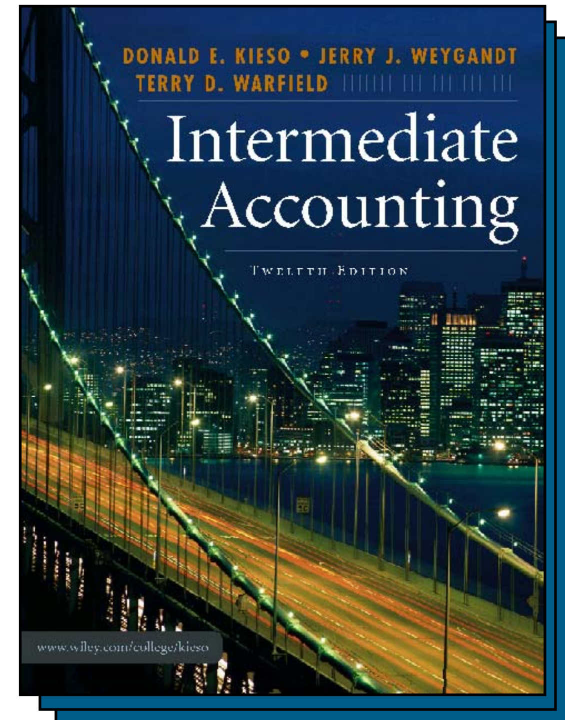
Conceptual Framework Underlying Financial Accounting

Chapter 2

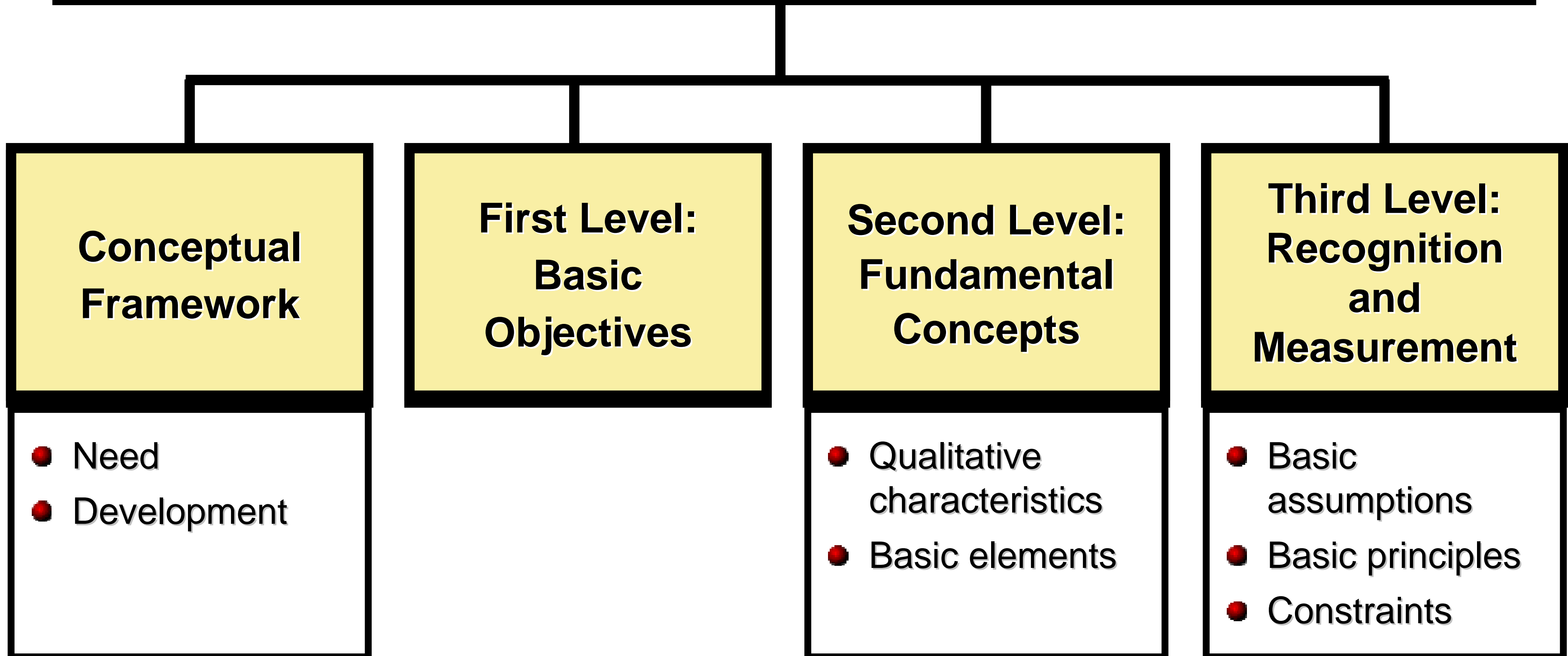
Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Chapter 2 Learning Objectives

1. Describe the usefulness of a conceptual framework.
2. Describe the FASB's efforts to construct a conceptual framework.
3. Understand the objectives of financial reporting.
4. Identify the qualitative characteristics of accounting information.
5. Define the basic elements of financial statements.
6. Describe the basic assumptions of accounting.
7. Explain the application of the basic principles of accounting.
8. Describe the impact that constraints have on reporting accounting information.


Conceptual Framework
Conceptual Framework
First Level: Basic Objectives
Second Level: Fundamental Concepts
Third Level: Recognition and Measurement
Need
Development
Qualitative characteristics
Basic elements
Basic assumptions
Basic principles
Constraints

Conceptual Framework

The Need for a Conceptual Framework

- To develop a coherent set of standards and rules
- To solve new and emerging practical problems

Conceptual Framework

Review:

A conceptual framework underlying financial accounting is important because it can lead to consistent standards and it prescribes the nature, function, and limits of financial accounting and financial statements.

True

LO 1 Describe the usefulness of a conceptual framework.

Conceptual Framework

Review:

A conceptual framework underlying financial accounting is necessary because future accounting practice problems can be solved by reference to the conceptual framework and a formal standard-setting body will not be necessary.

False

Development of Conceptual Framework

The FASB has issued six **Statements of Financial Accounting Concepts** (SFAC) for business enterprises.

SFAC No.1 - Objectives of Financial Reporting

SFAC No.2 - Qualitative Characteristics of Accounting Information

SFAC No.3 - Elements of Financial Statements (superceded by SFAC No. 6)

SFAC No.4 - Nonbusiness Organizations

SFAC No.5 - Recognition and Measurement in Financial Statements

SFAC No.6 - Elements of Financial Statements (replaces SFAC No. 3)

SFAC No.7 - Using Cash Flow Information and Present Value in Accounting Measurements

Conceptual Framework

The Framework is comprised of three levels:

- **First Level** = Basic Objectives
- **Second Level** = Qualitative Characteristics and Basic Elements
- **Third Level** = Recognition and Measurement Concepts.

LO 2 Describe the FASB's efforts to construct a conceptual framework.

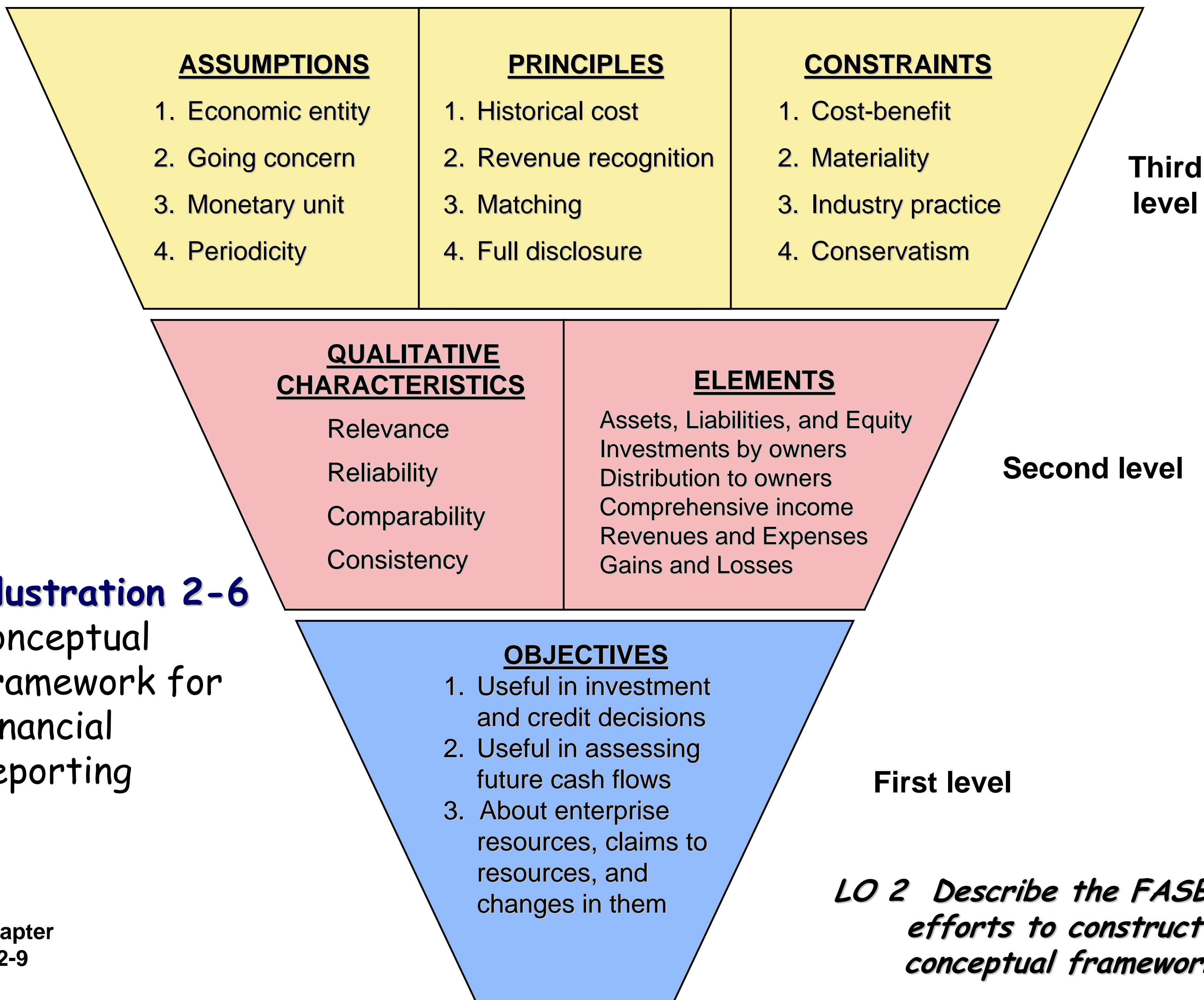


Illustration 2-6
Conceptual Framework for Financial Reporting

LO 2 Describe the FASB's efforts to construct a conceptual framework.

Conceptual Framework

Review:

What are the Statements of Financial Accounting Concepts intended to establish?

a. Generally accepted accounting principles in financial reporting by business enterprises.

b. The meaning of "Present fairly in accordance with generally accepted accounting principles."

c. The objectives and concepts for use in developing standards of financial accounting and reporting.

d. The hierarchy of sources of generally accepted accounting principles.

(CPA adapted)

First Level: Basic Objectives

Financial reporting should provide information that:

(a) is useful to present and potential investors and creditors and other users in making rational investment, credit, and similar decisions.

(b) helps present and potential investors and creditors and other users in assessing the amounts, timing, and uncertainty of prospective cash receipts.

(c) portrays the economic resources of an enterprise, the claims to those resources, and the effects of transactions, events, and circumstances that change its resources and claims to those resources.

LO 3 Understand the objectives of financial reporting.

Conceptual Framework

Review:

According to the FASB conceptual framework, the objectives of financial reporting for business enterprises are based on?

a. Generally accepted accounting principles

b. Reporting on management's stewardship.

c. The need for conservatism.

d. The needs of the users of the information.

(CPA adapted)

Second Level: Fundamental Concepts

Question:

How does a company choose an acceptable accounting method, the amount and types of information to disclose, and the format in which to present it?

Answer:

By determining which alternative provides the most useful information for decision-making purposes (**decision usefulness**).

Second Level: Fundamental Concepts

Qualitative Characteristics

"The FASB identified the **Qualitative Characteristics** of accounting information that distinguish better (more useful) information from inferior (less useful) information for decision-making purposes."

Second Level: Qualitative Characteristics

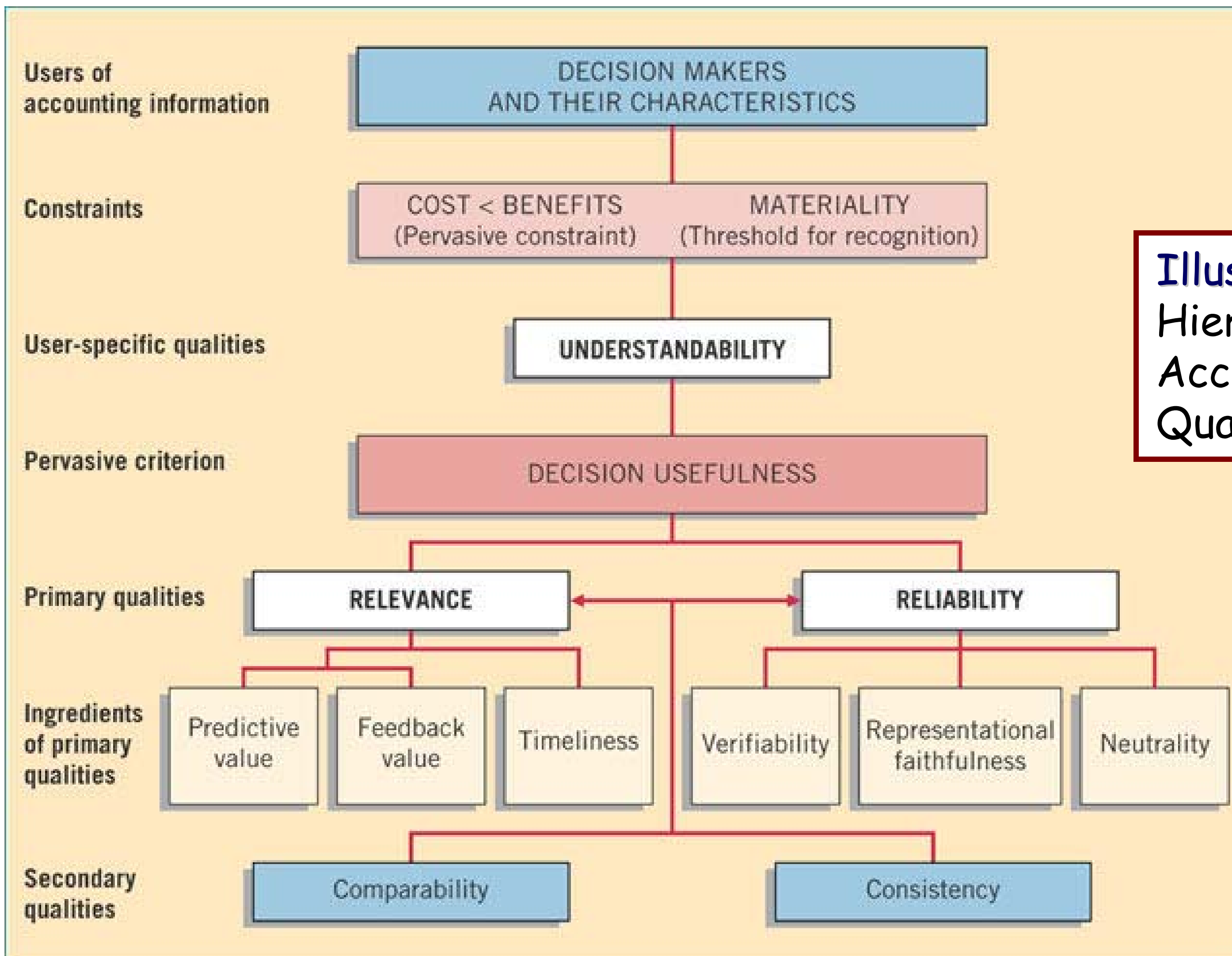


Illustration 2-2
Hierarchy of Accounting Qualities

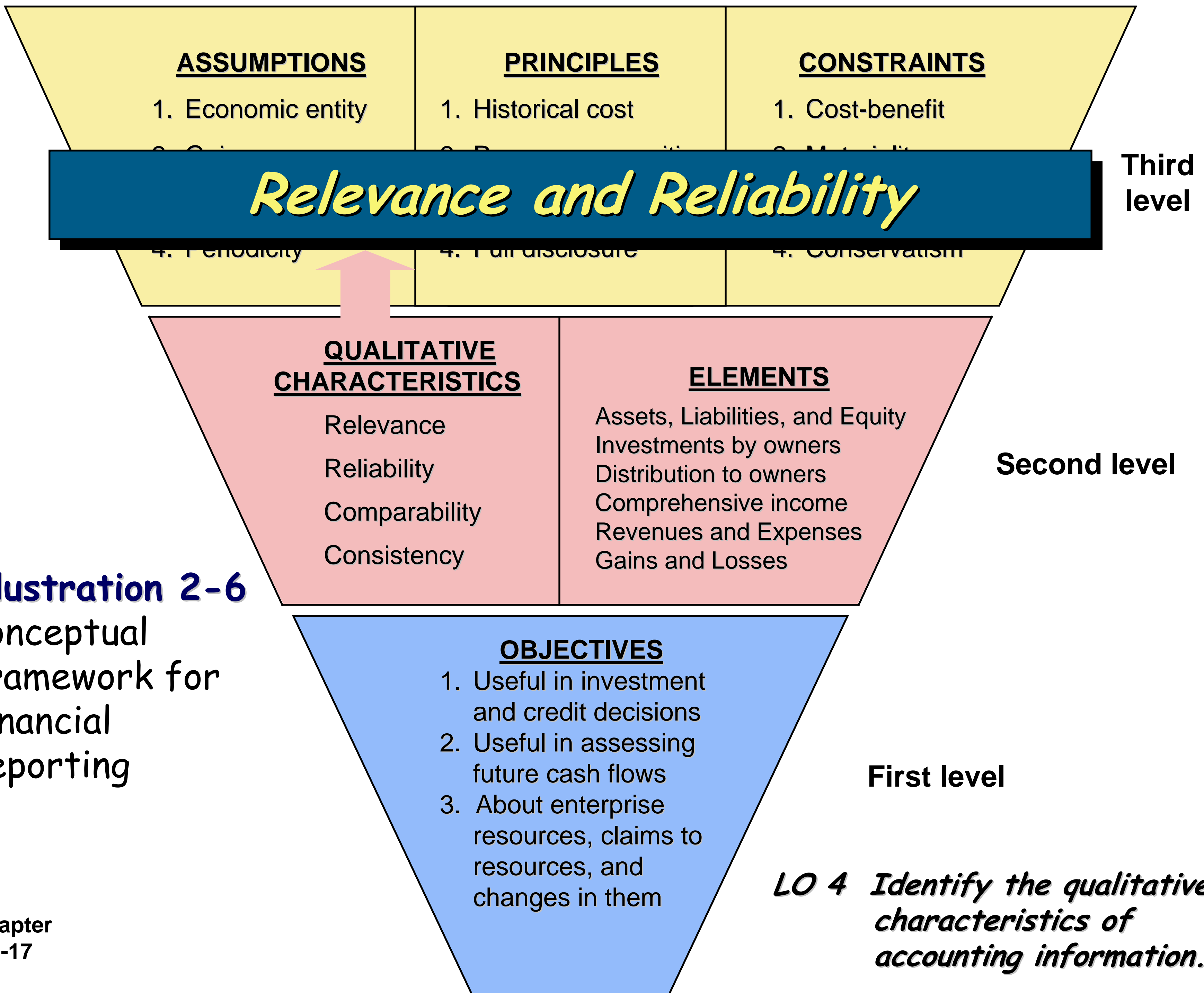
LO 4 Identify the qualitative characteristics of accounting information.

Second Level: Fundamental Concepts

Understandability

A company may present highly relevant and reliable information, however it was useless to those who do not understand it.

LO 4 Identify the qualitative characteristics of accounting information.


ASSUMPTIONS
1. Economic entity
4. Periodicity
PRINCIPLES
1. Historical cost
4. Full disclosure
CONSTRAINTS
1. Cost-benefit
4. Conservatism
Relevance and Reliability
Third level
QUALITATIVE CHARACTERISTICS
Relevance
Reliability
Comparability
Consistency
ELEMENTS
Assets, Liabilities, and Equity
Investments by owners
Distribution to owners
Comprehensive income
Revenues and Expenses
Gains and Losses
Second level
OBJECTIVES
1. Useful in investment and credit decisions
2. Useful in assessing future cash flows
3. About enterprise resources, claims to resources, and changes in them
First level
Illustration 2-6
Conceptual Framework for Financial Reporting
LO 4 Identify the qualitative characteristics of accounting information.

Second Level: Qualitative Characteristics

Primary Qualities:

Relevance – making a difference in a decision.

- Predictive value
- Feedback value
- Timeliness

Reliability

- Verifiable
- Representational faithfulness
- Neutral - free of error and bias

LO 4 Identify the qualitative characteristics of accounting information.

Second Level: Qualitative Characteristics

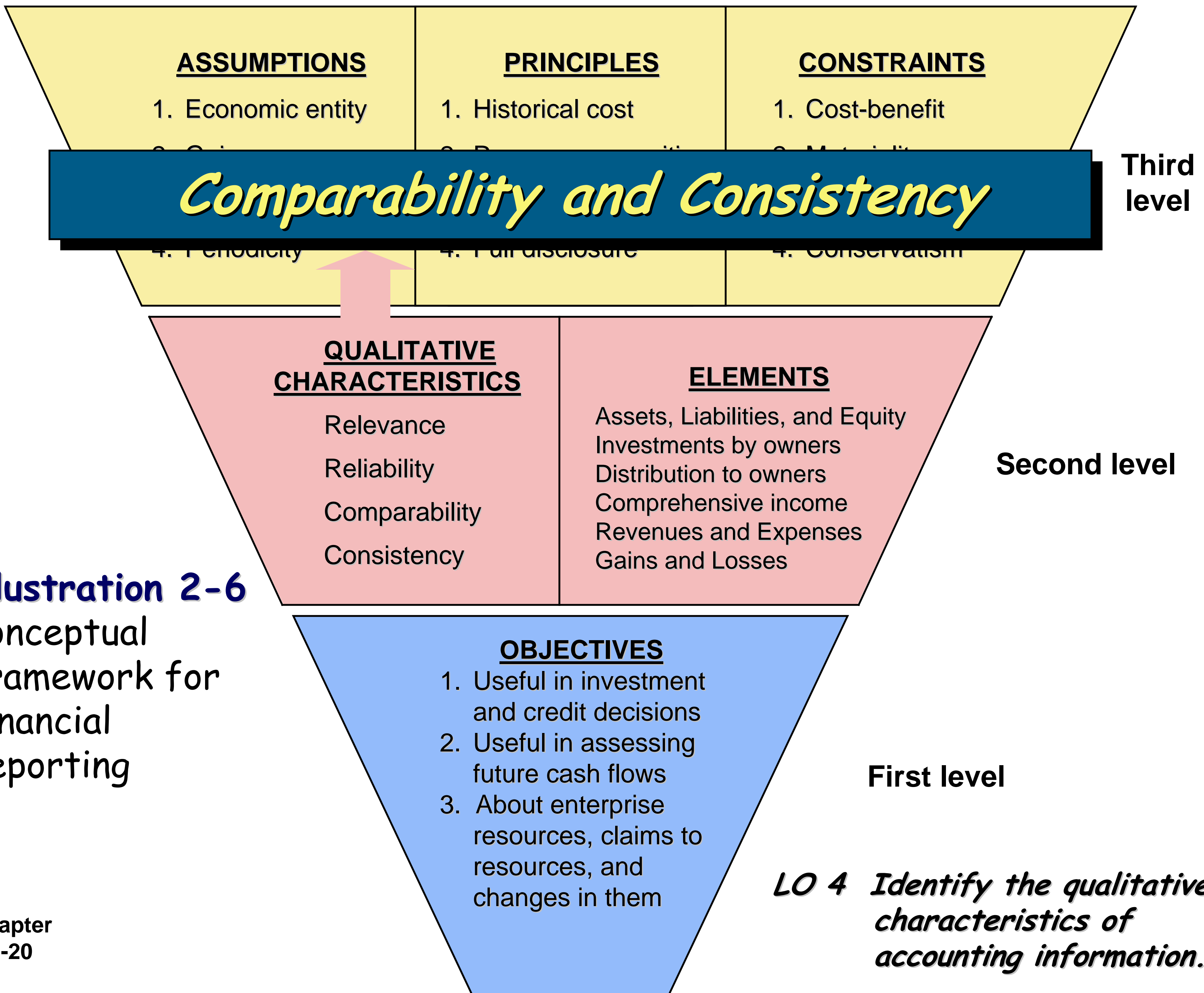
Review:

Relevance and reliability are the two primary qualities that make accounting information useful for decision making.

True

To be reliable, accounting information must be capable of making a difference in a decision.

False



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First level
Illustration 2-6
Conceptual Framework for Financial Reporting
LO 4 Identify the qualitative characteristics of accounting information.
Chapter 2-20

Second Level: Qualitative Characteristics

Secondary Qualities:

Comparability – Information that is measured and reported in a similar manner for different companies is considered comparable.

Consistency - When a company applies the same accounting treatment to similar events from period to period.

Second Level: Qualitative Characteristics

Review:

Adherence to the concept of consistency requires that the same accounting principles be applied to similar transactions for a minimum of five years before any change in principle is adopted.

False

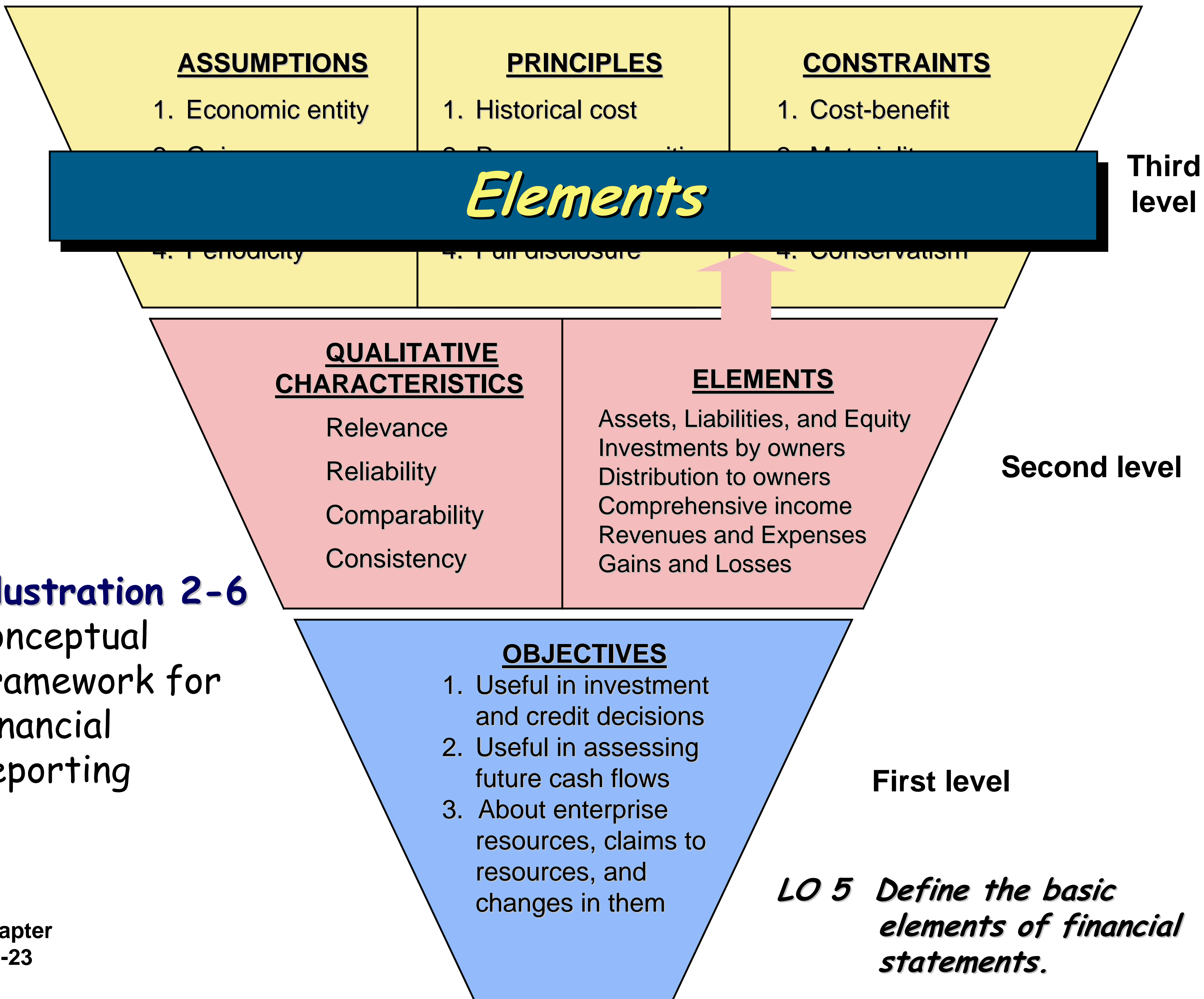
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Illustration 2-6
Conceptual Framework for Financial Reporting
OBJECTIVES
1. Useful in investment and credit decisions
2. Useful in assessing future cash flows
3. About enterprise resources, claims to resources, and changes in them
First level
LO 5 Define the basic elements of financial statements.
Chapter 2-23

Second Level: Elements

Concepts Statement No. 6 defines ten interrelated elements that relate to measuring the performance and financial status of a business enterprise.

"Moment in Time"

- Assets
- Liabilities
- Equity

"Period of Time"

- Investment by owners
- Distribution to owners
- Comprehensive income
- Revenue
- Expenses
- Gains
- Losses

LO 5 Define the basic elements of financial statements.

Second Level: Elements

Exercise 2-3 Identify the element or elements associated with items below.

(a) Arises from peripheral or incidental transactions.

(b) Obligation to transfer resources arising from a past transaction.

(c) Increases ownership interest.

(d) Declares and pays cash dividends to owners.

(e) Increases in net assets in a period from nonowner sources.

		Elements
		Assets
	(b)	Liabilities
		Equity
	(c)	Investment by owners
	(d)	Distribution to owners
(e)	(c)	Comprehensive income
		Revenue
		Expenses
	(a)	Gains
	(a)	Losses

LO 5 Define the basic elements of financial statements.

Second Level: Elements

Exercise 2-3 Identify the element or elements associated with items below.

(f) Items characterized by future economic benefit.

(g) Equals increase in net assets during the year, after adding distributions to owners and subtracting investments by owners.

(h) Arises from income statement activities that constitute the entity's ongoing major or central operations.

			Elements
		(f)	Assets
		(b)	Liabilities
			Equity
		(c)	Investment by owners
		(d)	Distribution to owners
(g)	(e)	(c)	Comprehensive income
		(h)	Revenue
		(h)	Expenses
		(a)	Gains
		(a)	Losses

Second Level: Elements

Exercise 2-3 Identify the element or elements associated with items below.

(i) Residual interest in the net assets of the enterprise.

(j) Increases assets through sale of product.

(k) Decreases assets by purchasing the company's own stock.

(l) Changes in equity during the period, except those from investments by owners and distributions to owners.

				Elements
			(f)	Assets
			(b)	Liabilities
			(i)	Equity
			(c)	Investment by owners
		(k)	(d)	Distribution to owners
(l)	(g)	(e)	(c)	Comprehensive income
		(j)	(h)	Revenue
			(h)	Expenses
			(a)	Gains
			(a)	Losses

LO 5 Define the basic elements of financial statements.

Second Level: Elements

Review:

According to the FASB conceptual framework, an entity's revenue may result from

a. A decrease in an asset from primary operations.

b. An increase in an asset from incidental transactions.

c. An increase in a liability from incidental transactions.

d. A decrease in a liability from primary operations.

(CPA adapted)

Third Level: Recognition and Measurement

The FASB sets forth most of these concepts in its **Statement of Financial Accounting Concepts No. 5**, "Recognition and Measurement in Financial Statements of Business Enterprises."

ASSUMPTIONS	PRINCIPLES	CONSTRAINTS
1. Economic entity	1. Historical cost	1. Cost-benefit
2. Going concern	2. Revenue recognition	2. Materiality
3. Monetary unit	3. Matching	3. Industry practice
4. Periodicity	4. Full disclosure	4. Conservatism

LO 6 Describe the basic assumptions of accounting.

Third Level: Assumptions

Economic Entity – company keeps its activity separate from its owners and other businesses.

Going Concern - company to last long enough to fulfill objectives and commitments.

Monetary Unit - money is the common denominator.

Periodicity - company can divide its economic activities into time periods.

LO 6 Describe the basic assumptions of accounting.

Third Level: Assumptions

Brief Exercise 2-4 Identify which basic assumption of accounting is best described in each item below.

(a) The economic activities of FedEx Corporation are divided into 12-month periods for the purpose of issuing annual reports.

Periodicity

(b) Solectron Corporation, Inc. does not adjust amounts in its financial statements for the effects of inflation.

Monetary Unit

(c) Walgreen Co. reports current and noncurrent classifications in its balance sheet.

Going Concern

(d) The economic activities of General Electric and its subsidiaries are merged for accounting and reporting purposes.

Economic Entity

Third Level: Principles

Historical Cost – the price, established by the exchange transaction, is the "cost".

Issues:

- Historical cost provides a reliable benchmark for measuring historical trends.
- Fair value information may be more useful.
- FASB issued SFAS 15X, "Fair Value Measurements (2005)."
- Reporting of fair value information is increasing.

Third Level: Principles

Revenue Recognition - generally occurs (1) when realized or realizable and (2) when earned.

Exceptions:

- During Production.
- At End of Production
- Upon Receipt of Cash

Third Level: Principles

Matching - efforts (expenses) should be matched with accomplishment (revenues) whenever it is reasonable and practicable to do so. "Let the expense follow the revenues."

Type of Cost	Relationship	Recognition
Product costs: • Material • Labor • Overhead	Direct relationship between cost and revenue.	Recognize in period of revenue (matching).
Period costs: • Salaries • Administrative costs	No direct relationship between cost and revenue.	Expense as incurred.

Illustration 2-4
Expense Recognition

LO 7 Explain the application of the basic principles of accounting.

Third Level: Principles

Full Disclosure – providing information that is of sufficient importance to influence the judgment and decisions of an informed user.

Provided through:

- Financial Statements
- Notes to the Financial Statements
- Supplementary information

LO 7 Explain the application of the basic principles of accounting.

Third Level: Principles

Brief Exercise 2-5 Identify which basic principle of accounting is best described in each item below.

(a) Norfolk Southern Corporation reports revenue in its income statement when it is earned instead of when the cash is collected.

Revenue Recognition

(b) Yahoo, Inc. recognizes depreciation expense for a machine over the 2-year period during which that machine helps the company earn revenue.

Matching

(c) Oracle Corporation reports information about pending lawsuits in the notes to its financial statements.

Full Disclosure

(d) Eastman Kodak Company reports land on its balance sheet at the amount paid to acquire it, even though the estimated fair market value is greater.

Historical Cost

LO 7 Explain the application of the basic principles of accounting.

Third Level: Constraints

Cost Benefit – the cost of providing the information must be weighed against the benefits that can be derived from using it.

Materiality - an item is material if its inclusion or omission would influence or change the judgment of a reasonable person.

Industry Practice - the peculiar nature of some industries and business concerns sometimes requires departure from basic accounting theory.

Conservatism – when in doubt, choose the solution that will be least likely to overstate assets and income.

LO 8 Describe the impact that constraints have on reporting accounting information.

Third Level: Constraints

Brief Exercise 2-6 What accounting constraints are illustrated by the items below?

(a) Zip's Farms, Inc. reports agricultural crops on its balance sheet at market value.

Industry Practice

(b) Crimson Tide Corporation does not accrue a contingent lawsuit gain of $650,000.

Conservatism

(c) Wildcat Company does not disclose any information in the notes to the financial statements unless the value of the information to users exceeds the expense of gathering it.

Cost-Benefit

(d) Sun Devil Corporation expenses the cost of wastebaskets in the year they are acquired.

Materiality

LO 8 Describe the impact that constraints have on reporting accounting information.

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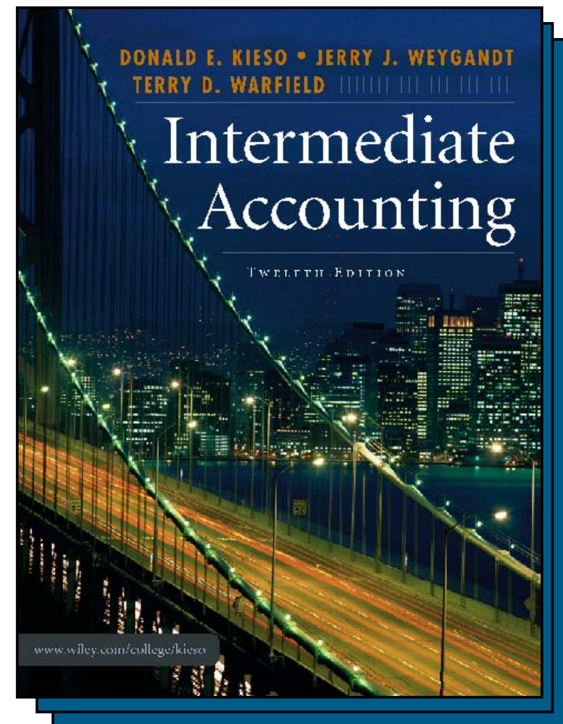
The Accounting Information System

Chapter 3

Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Understand basic accounting terminology.
2. Explain double-entry rules.
3. Identify steps in the accounting cycle.
4. Record transactions in journals, post to ledger accounts, and prepare a trial balance.
5. Explain the reasons for preparing adjusting entries.
6. Prepare financial statement from the adjusted trial balance.
7. Prepare closing entries.
8. Explain how to adjust inventory accounts at year-end.

Accounting Information System

Accounting Information System

- Basic terminology
- Debits and credits
- Basic equation
- Financial statements and ownership structure

The Accounting Cycle

- Identification and recording
- Journalizing
- Posting
- Trial balance
- Adjusting entries
- Adjusted trial balance
- Preparing financial statements
- Closing
- Post-closing trial balance
- Reversing entries
- Financial statements for merchandisers

Accounting Information System

An Accounting Information System (AIS)

- collects and processes transaction data and
- disseminates the information to interested parties.

Accounting Information System

Helps management answer such questions as:

- How much and what kind of debt is outstanding?
- Were sales higher this period than last?
- What assets do we have?
- What were our cash inflows and outflows?
- Did we make a profit last period?

Basic Terminology

- Event
- Transaction
- Account
- Real Account
- Nominal Account
- Ledger
- Journal
- Posting
- Trial Balance
- Adjusting Entries
- Financial Statements
- Closing Entries

Debits and Credits

- An **Account** shows the effect of transactions on a given asset, liability, equity, revenue, or expense account.
- **Double-entry** accounting system (two-sided effect).
- Recording done by debiting at least one account and crediting another.
- DEBITS **must equal** CREDITS.

Debits and Credits

Account

- An arrangement that shows the effect of transactions on an account.
- Debit = "Left"
- Credit = "Right"

An Account can be illustrated in a T-Account form.

Account Name	
Debit / Dr.	Credit / Cr.

Debits and Credits

If Debit entries are greater than Credit entries, the account will have a debit balance.

Account Name

	Debit / Dr.	Credit / Cr.	
Transaction #1	$10,000	$3,000	Transaction #2
Transaction #3	8,000		
Balance	$15,000		

Debits and Credits

If Credit entries are greater than Debit entries, the account will have a credit balance.

Account Name

	Debit / Dr.	Credit / Cr.	
Transaction #1	$10,000	$3,000	Transaction #2
		8,000	Transaction #3
Balance		$1,000	

Debits and Credits Summary

Normal Balance **Debit**

Normal Balance **Credit**

Assets

Debit / Dr.	Credit / Cr.
↑	↓
Normal Balance	

Chapter 3-23

Expense

Debit / Dr.	Credit / Cr.
↑	↓
Normal Balance	

Chapter 3-27

Liabilities

Debit / Dr.	Credit / Cr.
↓	↑
	Normal Balance

Equity

Debit / Dr.	Credit / Cr.
↓	↑
	Normal Balance

Chapter 3-25

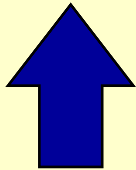
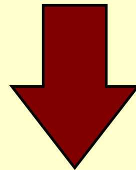
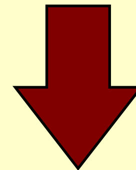
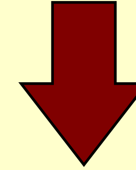
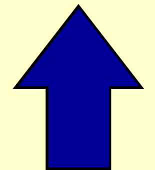
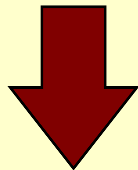
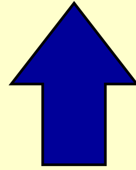
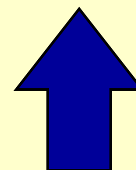
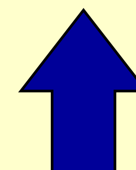
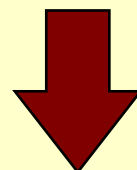
Revenue

Debit / Dr.	Credit / Cr.
↓	↑
	Normal Balance

Chapter 3-26

LO 2 Explain double-entry rules.

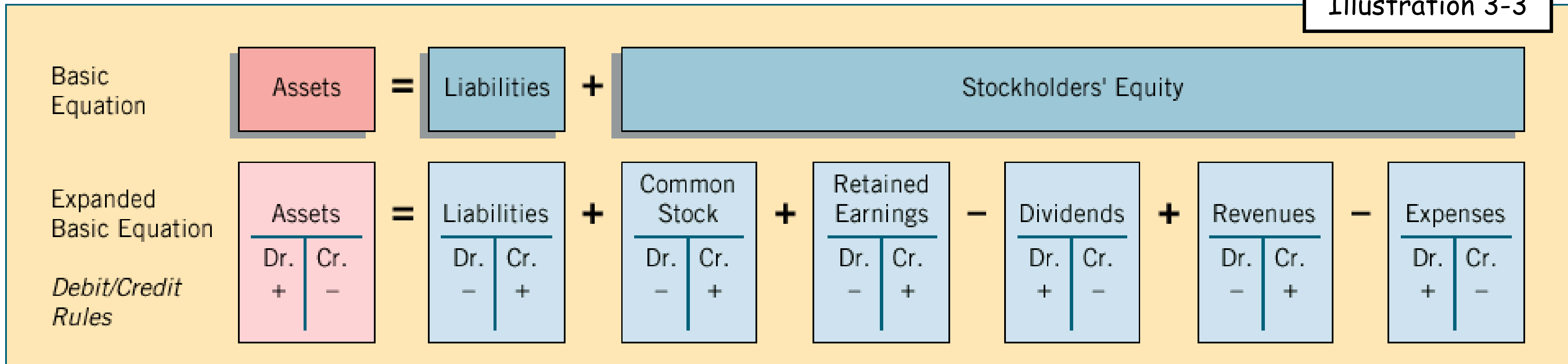
Debits and Credits Summary

	Balance Sheet			Income Statement	
	Asset =	Liability +	Equity	Revenue -	Expense =
Debit					
Credit					

LO 2 Explain double-entry rules.

Basic Accounting Equation

Relationship among the assets, liabilities and stockholders' equity of a business:

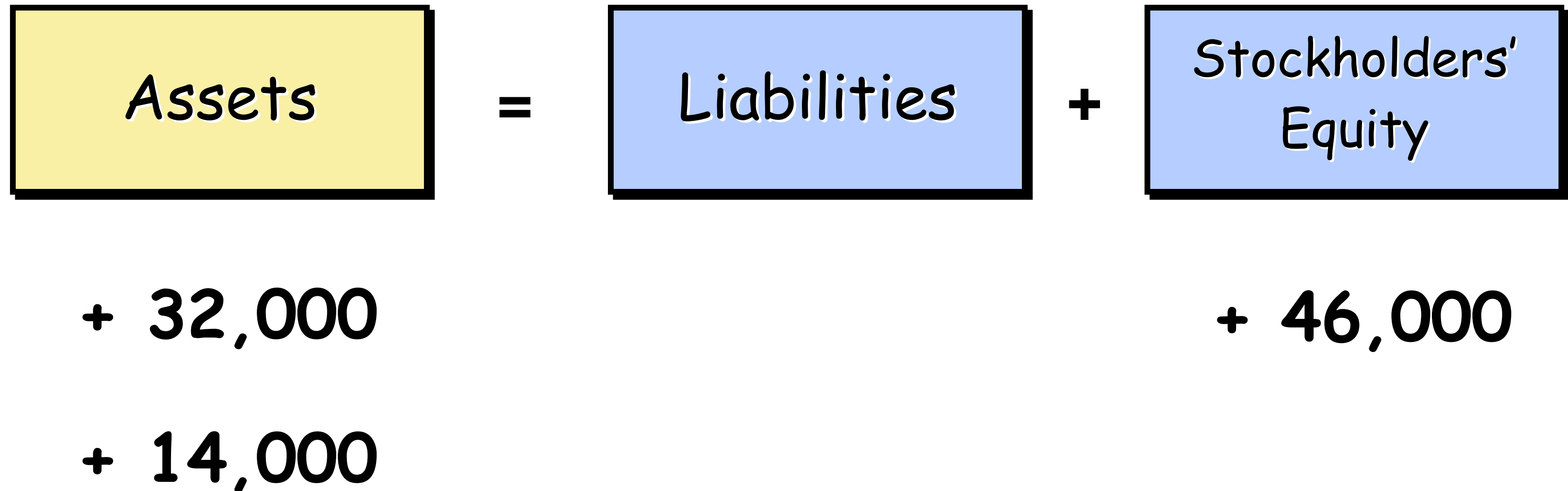


The equation must be in balance after every transaction. For every **Debit** there must be a **Credit**.

LO 2 Explain double-entry rules.

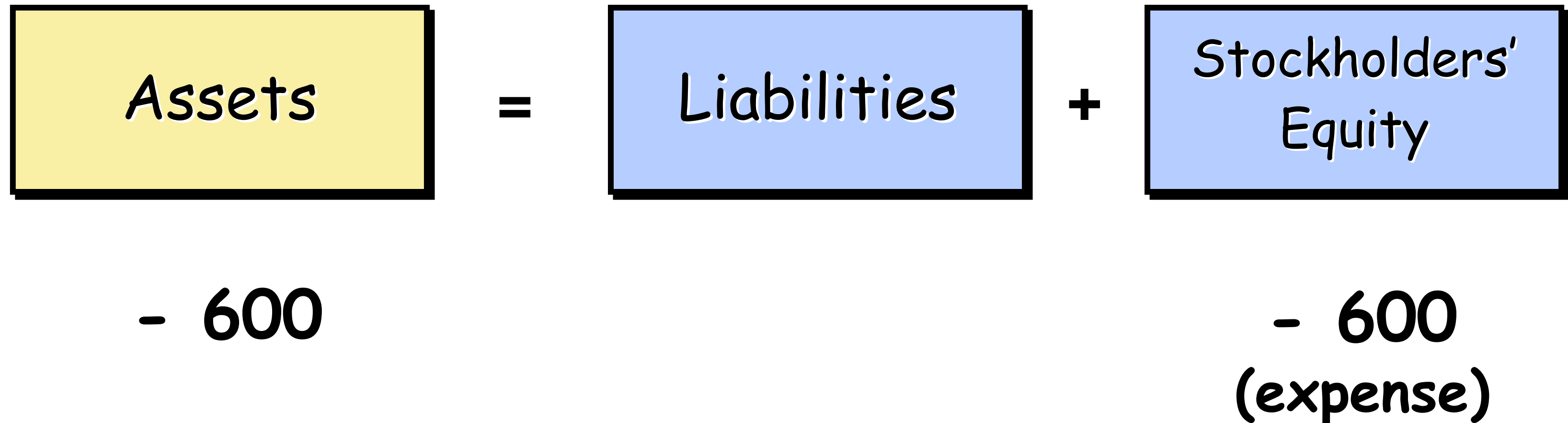
Double-Entry System Exercise

1. Invested $32,000 cash and equipment valued at $14,000 in the business.



Double-Entry System Exercise

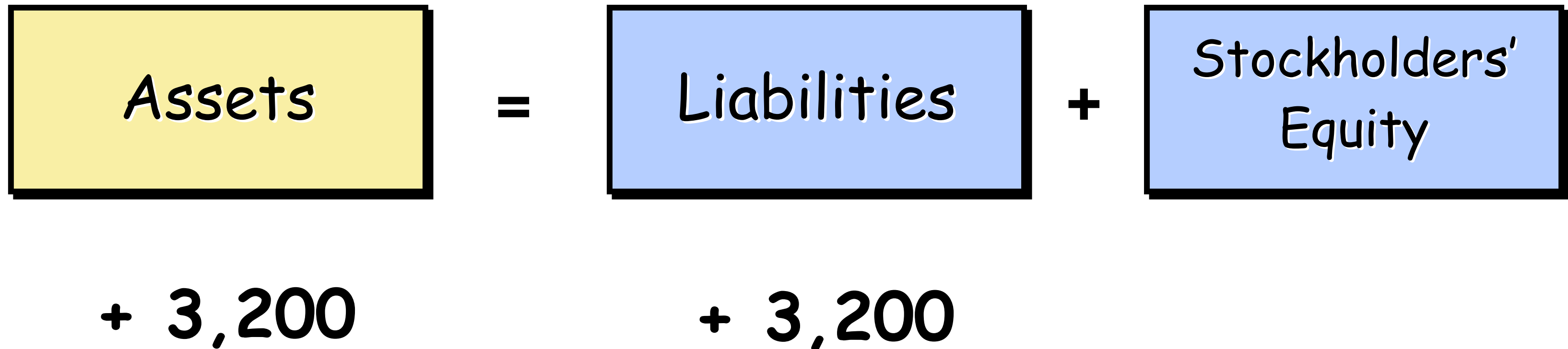
2. Paid office rent of $600 for the month.



LO 2 Explain double-entry rules.

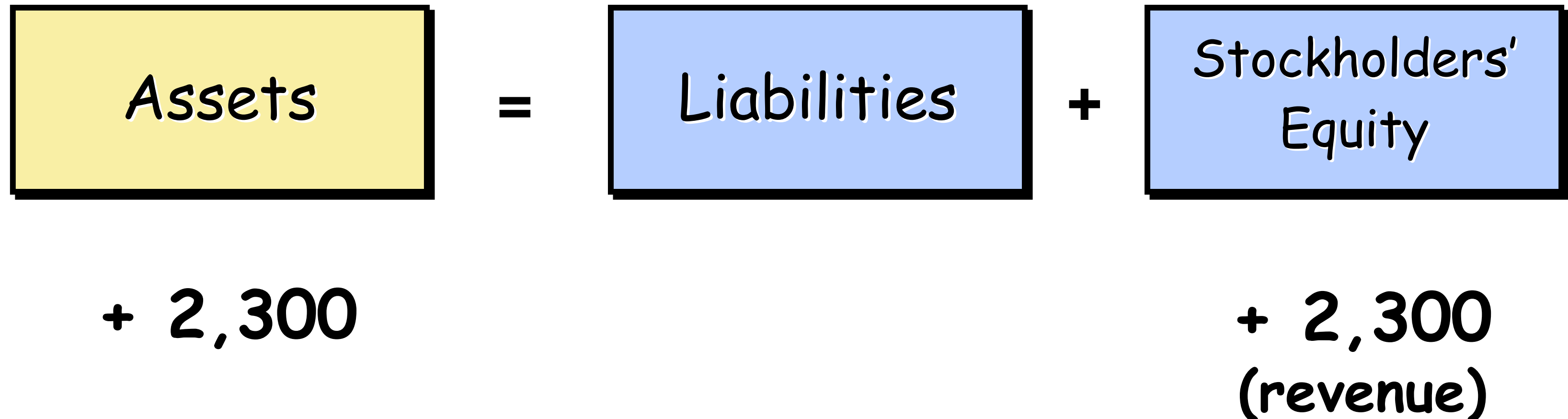
Double-Entry System Exercise

3. Received $3,200 advance on a management consulting engagement.



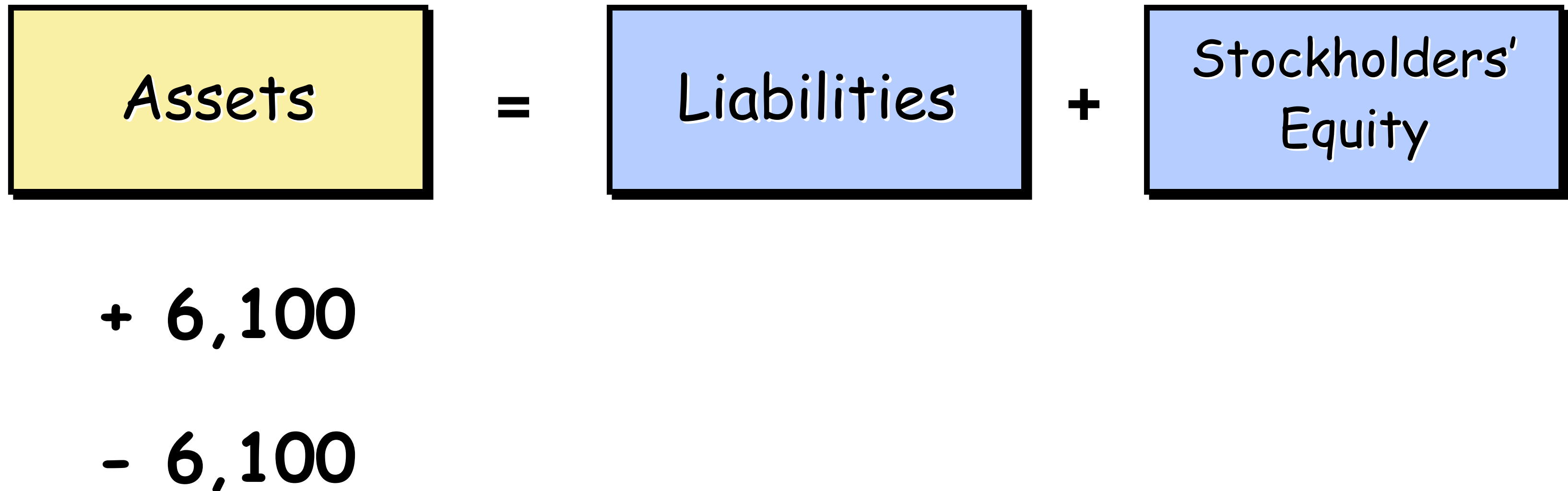
Double-Entry System Exercise

4. Received cash of $2,300 for services completed for Shuler Co.



Double-Entry System Exercise

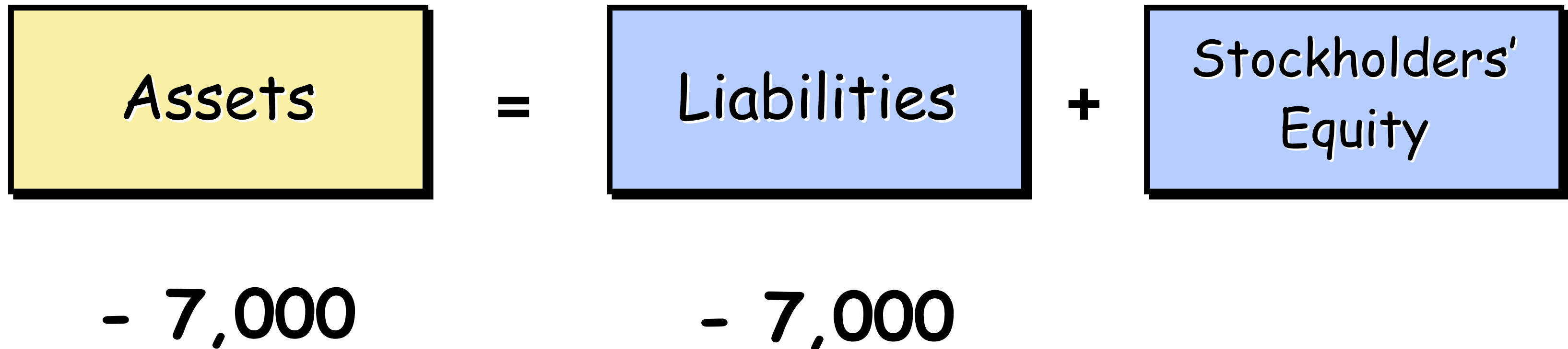
5. Purchased a computer for $6,100.



LO 2 Explain double-entry rules.

Double-Entry System Exercise

6. Paid off liabilities of $7,000.



- 7,000 - 7,000

Double-Entry System Exercise

7. Declared a cash dividend of $10,000.

Assets	=	Liabilities	+	Stockholders' Equity
		+ 10,000		- 10,000

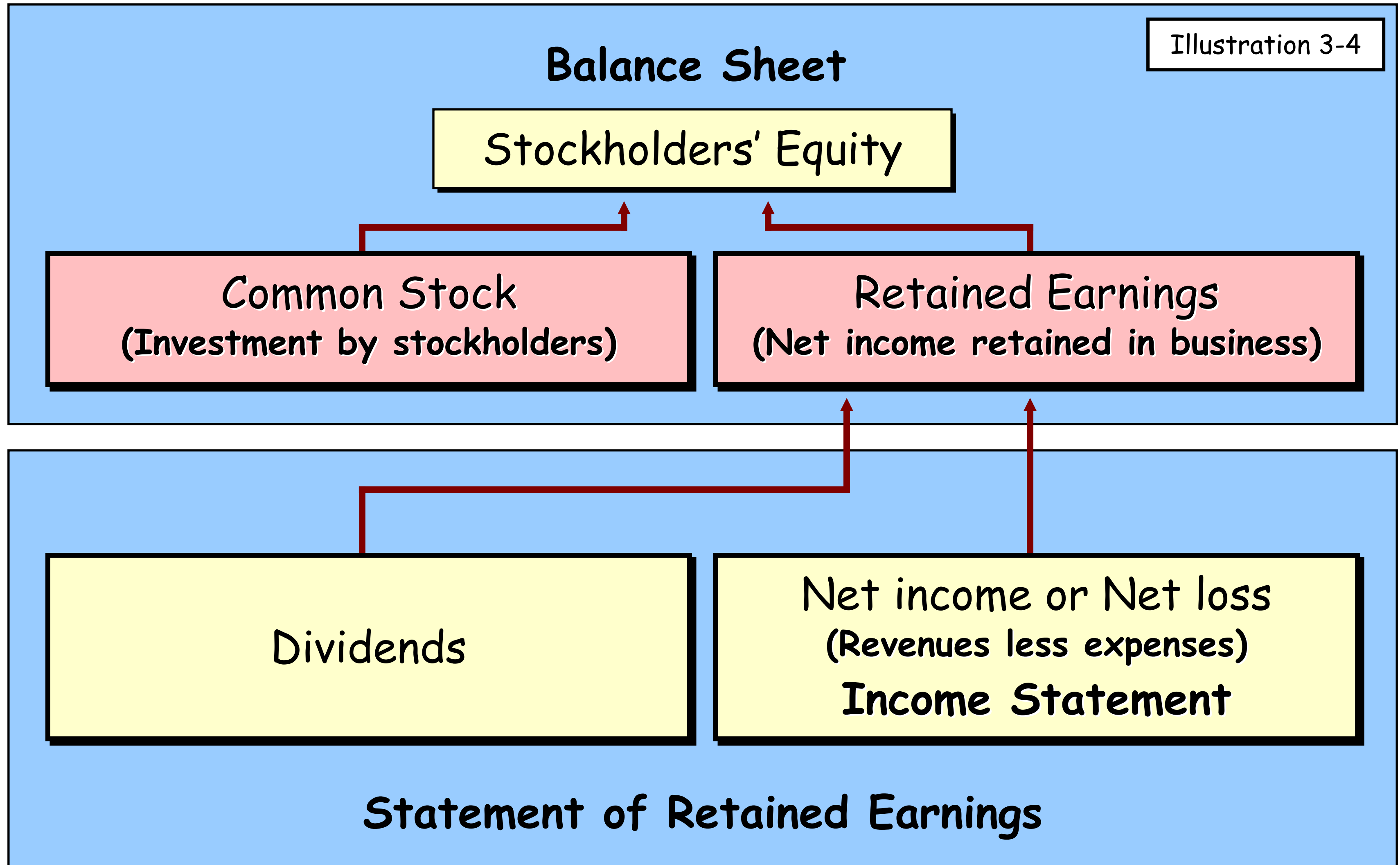
Note that the accounting equation equality is maintained after recording each transaction.

Ownership Structure

Ownership structure dictates the types of accounts that are part of the equity section.

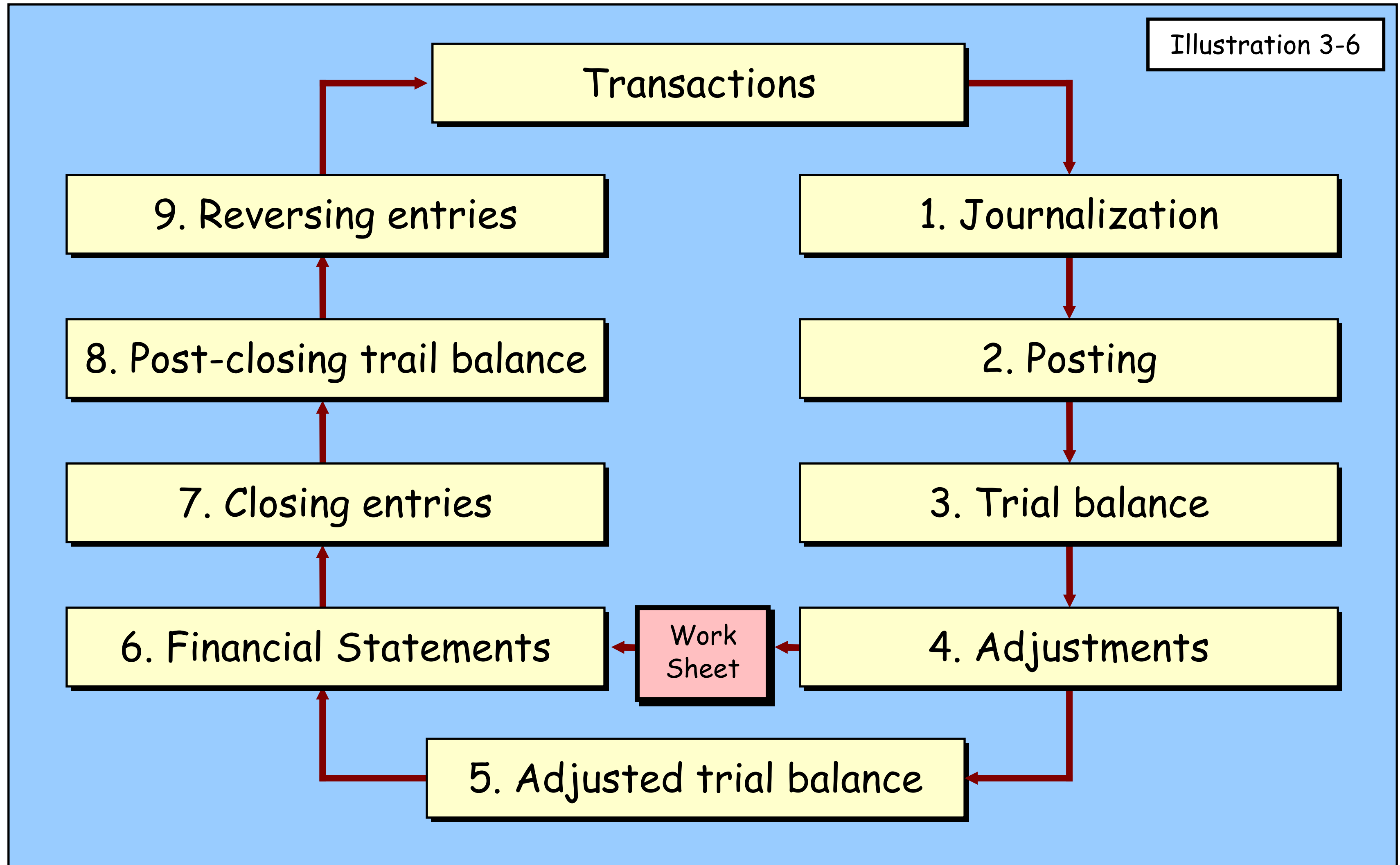
Proprietorship or Partnership	Corporation
• Capital Account • Drawing Account	• Common Stock • Additional Paid-in Capital • Dividends Declared • Retained Earnings

Corporation Ownership Structure



LO 2 Explain double-entry rules.

The Accounting Cycle



LO 3 Identify steps in the accounting cycle.

Transactions and Events

What to Record?

FASB states, "transactions and other events and circumstances that affect a business enterprise."

Types of Events:

- External – between a business and its environment.
- Internal – event occurring entirely within a business.

Review "Transactions and Events"

External	Internal	Not Recorded

#	Transaction or event	Classification
1.	A supplier of a company's raw material is paid an amount owed on account.	External
2.	A customer pays its open account.	External
3.	A new chief executive officer is hired.	Not Recorded
4.	The biweekly payroll is paid.	External
5.	Raw materials are entered into production.	Internal
6.	A new advertising agency is hired.	Not Recorded
7.	The accountant determines the federal income taxes owed based on the income earned.	Internal

1. Journalizing

General Journal – a chronological record of transactions. **Journal Entries** are recorded in the journal.

General Journal

Date	Account Title	Ref.	Debit	Credit
Jan. 3	Cash	100	100,000	
	Common stock	300		100,000
10	Building	130	150,000	
	Note payable	220		150,000

LO 4 Record transactions in journals, post to ledger accounts, and prepare a trial balance.

2. Posting

Posting – the process of transferring amounts from the journal to the ledger accounts.

General Journal **GJ1**

Date	Account Title	Ref.	Debit	Credit
Jan. 3	Cash	100	100,000	
	Common stock			100,000

General Ledger

Cash **Acct. No. 100**

Date	Explanation	Ref.	Debit	Credit	Balance
Jan. 3	Sale of stock	GJ1	100,000		100,000

LO 4 Record transactions in journals, post to ledger accounts, and prepare a trial balance.

3. Trial Balance

Trial Balance – a list of each account and its balance; used to prove equality of debit and credit balances.

Acct. No.	Account	Debit	Credit
100	Cash	$ 140,000	
105	Accounts receivable	35,000	
110	Inventory	30,000	
130	Building	150,000	
200	Accounts payable		$ 60,000
220	Note payable		150,000
300	Common stock		100,000
330	Retained earnings		
400	Sales		75,000
500	Cost of goods sold	30,000	
		$ 385,000	$ 385,000

LO 4 Record transactions in journals, post to ledger accounts, and prepare a trial balance.

4. Adjusting Entries

- **Revenues** - recorded in the period in which they are earned.
- **Expenses** - recognized in the period in which they are incurred.
- **Adjusting entries** - needed to ensure that the revenue recognition and matching principles are followed.

LO 5 Explain the reasons for preparing adjusting entries.

Classes of Adjusting Entries

Illustration 3-20

Prepayments	Accruals
1. **Prepaid Expenses.** Expenses paid in cash and recorded as assets before they are used or consumed.	3. **Accrued Revenues.** Revenues earned but not yet received in cash or recorded.
2. **Unearned Revenues.** Revenues received in cash and recorded as liabilities before they are earned.	4. **Accrued Expenses.** Expenses incurred but not yet paid in cash or recorded.

Adjusting Entries - "Prepaid Expenses"

Payment of cash that is recorded as an asset because service or benefit will be received in the future.

Cash Payment **BEFORE** Expense Recorded

Prepayments often occur in regard to:

- insurance
- supplies
- advertising
- rent
- maintenance on equipment
- fixed assets

Adjusting Entries – "Prepaid Expenses"

Example: On Jan. 1st, Phoenix Corp. paid $12,000 for 12 months of insurance coverage. Show the journal entry to record the payment on Jan. 1st.

Date	Account	Debit	Credit
Jan. 1	Prepaid insurance	12,000	
	Cash		12,000

Prepaid Insurance

Debit	Credit
12,000	

Cash

Debit	Credit
	12,000

Adjusting Entries - "Prepaid Expenses"

Example: On Jan. 1st, Phoenix Corp. paid $12,000 for 12 months of insurance coverage. Show the adjusting journal entry required at Jan. 31st.

Date	Account	Debit	Credit
Jan. 31	Insurance expense	1,000	
	Prepaid insurance		1,000

Prepaid Insurance

Debit	Credit
12,000	1,000
11,000	

Insurance expense

Debit	Credit
1,000	

Adjusting Entries – "Unearned Revenues"

Receipt of cash that is recorded as a liability because the revenue has not been earned.

Cash Receipt **BEFORE** Revenue Recorded

Unearned revenues often occur in regard to:

- rent
- airline tickets
- school tuition
- magazine subscriptions
- customer deposits

Adjusting Entries - "Unearned Revenues"

Example: On Nov. 1st, Phoenix Corp. received $24,000 from Arcadia High School for 3 months rent in advance. Show the journal entry to record the receipt on Nov. 1st.

Date	Account	Debit	Credit
Nov. 1	Cash	24,000	
	Unearned rent revenue		24,000

Cash

Debit	Credit
24,000	

Unearned Rent Revenue

Debit	Credit
	24,000

LO 5 Explain the reasons for preparing adjusting entries.

Adjusting Entries – "Unearned Revenues"

Example: On Nov. 1st, Phoenix Corp. received $24,000 from Arcadia High School for 3 months rent in advance. Show the adjusting journal entry required on Nov. 30th.

Nov. 30	Unearned rent revenue	8,000	
	Rent revenue		8,000

Rent Revenue

Debit	Credit
	8,000

Unearned Rent Revenue

Debit	Credit
8,000	24,000
	16,000

LO 5 Explain the reasons for preparing adjusting entries.

Adjusting Entries - "Accrued Revenues"

Revenues earned but not yet received in cash or recorded.

Adjusting entry results in:

Revenue Recorded **BEFORE** Cash Receipt

Accrued revenues often occur in regard to:

- rent
- interest
- services performed

Adjusting Entries – "Accrued Revenues"

Example: On July 1st, Phoenix Corp. invested $300,000 in securities that return 5% interest per year. Show the journal entry to record the investment on July 1st.

July 1	Investments	300,000	
	Cash		300,000

Investments

Debit	Credit
300,000	

Cash

Debit	Credit
	300,000

Adjusting Entries – "Accrued Revenues"

Example: On July 1st, Phoenix Corp. invested $300,000 in securities that return 5% interest per year. Show the adjusting journal entry required on July 31st.

July 31	Interest receivable	1,250	
	Interest revenue		1,250

Interest Receivable

Debit	Credit
1,250	

Interest Revenue

Debit	Credit
	1,250

LO 5 Explain the reasons for preparing adjusting entries.

Adjusting Entries - "Accrued Expenses"

Expenses incurred but not yet paid in cash or recorded.

Adjusting entry results in:

Expense Recorded **BEFORE** Cash Payment, if any*

Accrued expenses often occur in regard to:

- rent
- interest
- taxes
- salaries
- bad debts*

LO 5 Explain the reasons for preparing adjusting entries.

Adjusting Entries - "Accrued Expenses"

Example: On Feb. 2nd, Phoenix Corp. borrowed $200,000 at a rate of 9% per year. Interest is due on first of each month. Show the journal entry to record the borrowing on Feb. 2nd.

		Debit	Credit
Feb. 2	Cash	200,000	
	Notes payable		200,000

Cash

Debit	Credit
200,000	

Notes Payable

Debit	Credit
	200,000

LO 5 Explain the reasons for preparing adjusting entries.

Adjusting Entries - "Accrued Expenses"

Example: On Feb. 2nd, Phoenix Corp. borrowed $200,000 at a rate of 9% per year. Interest is due on first of each month. Show the adjusting journal entry required on Feb. 28th.

		Debit	Credit
Feb. 28	Interest expense	1,500	
	Interest payable		1,500

Interest Expense

Debit	Credit
1,500	

Interest Payable

Debit	Credit
	1,500

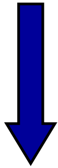
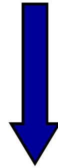
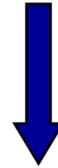
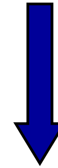
LO 5 Explain the reasons for preparing adjusting entries.

5. Adjusted Trial Balance

Shows the balance of all accounts, after adjusting entries, at the end of the accounting period.

6. Preparing Financial Statements

Financial Statements are prepared directly from the Adjusted Trial Balance.

Balance Sheet

Income Statement

Statement of Retained Earnings

Statement of Cash Flows

LO 6 Prepare financial statement from the adjusted trial balance.

6. Preparing Financial Statements

Assume the following Adjusted Trial Balance

Balance Sheet

Adjusted Trial Balance	Debit	Credit
Cash	$ 140,000	
Accounts receivable	35,000	
Building	190,000	
Note payable		$ 150,000
Common stock		100,000
Retained earnings		38,000
Dividends declared	10,000	
Sales		185,000
Interest income		17,000
Cost of goods sold	47,000	
Salary expense	25,000	
Depreciation expense	43,000	
	$ 490,000	$ 490,000

Balance Sheet	
Assets	
Cash	$ 140,000
Accounts receivable	35,000
Building	190,000
Total assets	$ 365,000
Liabilities	
Note payable	150,000
Stockholders' equity	
Common stock	100,000
Retained earnings	115,000
Total liab. & equity	$ 365,000

LO 6 Prepare financial statement from the adjusted trial balance.

6. Preparing Financial Statements

Assume the following Adjusted Trial Balance

Adjusted Trial Balance	Debit	Credit
Cash	$ 140,000	
Accounts receivable	35,000	
Building	190,000	
Note payable		$ 150,000
Common stock		100,000
Retained earnings		38,000
Dividends declared	10,000	
Sales		185,000
Interest income		17,000
Cost of goods sold	47,000	
Salary expense	25,000	
Depreciation expense	43,000	
	$ 490,000	$ 490,000

Income Statement

Income Statement	
Revenues:	
Sales	$ 185,000
Interest income	17,000
Total revenue	202,000
Expenses:	
Cost of goods sold	47,000
Salary expense	25,000
Depreciation expense	43,000
Total expenses	115,000
Net income	$ 87,000

LO 6 Prepare financial statement from the adjusted trial balance.

6. Preparing Financial Statements

Assume the following Adjusted Trial Balance

Adjusted Trial Balance	Debit	Credit
Cash	$ 140,000	
Accounts receivable	35,000	
Building	190,000	
Note payable		$ 150,000
Common stock		100,000
Retained earnings		38,000
Dividends declared	10,000	
Sales		185,000
Interest income		17,000
Cost of goods sold	47,000	
Salary expense	25,000	
Depreciation expense	43,000	
	$ 490,000	$ 490,000

Statement of Retained Earnings

Statement of Retained Earnings	
Beginning balance	$ 38,000
+ Net income	87,000
- Dividends	(10,000)
Ending balance	115,000

LO 6 Prepare financial statement from the adjusted trial balance.

7. Closing Entries

- To reduce the balance of the income statement (**revenue** and **expense**) accounts to zero.
- To transfer net income or net loss to owner's equity.
- Balance sheet (**asset**, **liability**, and **equity**) accounts are not closed.
- Dividends are closed directly to the Retained Earnings account.

7. Closing Entries

Example: Assume the following Adjusted Trial Balance

Acct. No.	Account	Debit	Credit
100	Cash	$ 140,000	
105	Accounts receivable	35,000	
130	Building	190,000	
220	Note payable		$ 150,000
300	Common stock		100,000
330	Retained earnings		38,000
380	Dividends declared	10,000	
400	Sales		185,000
430	Interest income		17,000
500	Cost of goods sold	47,000	
520	Salary expense	25,000	
550	Depreciation expense	43,000	
		$ 490,000	$ 490,000

7. Closing Entries

Example: Prepare the Closing journal entry from the adjusted trial balance on the previous slide.

Account	Debit	Credit
Sales	185,000	
Interest income	17,000	
Income summary		202,000
Income summary	115,000	
Cost of goods sold		47,000
Salary expense		25,000
Depreciation expense		43,000
Income summary	87,000	
Retained earnings		87,000
Retained earnings	10,000	
Dividends declared		10,000

8. Post-Closing Trial Balance

Example continued:

Acct. No.	Account	Debit	Credit
100	Cash	$ 140,000	
105	Accounts receivable	35,000	
130	Building	190,000	
220	Note payable		$ 150,000
300	Common stock		100,000
330	Retained earnings		115,000
380	Dividends declared	-	
400	Sales		-
430	Interest income		-
500	Cost of goods sold	-	
520	Salary expense	-	
550	Depreciation expense	-	
		$ 365,000	$ 365,000

LO 7 Prepare closing entries.

9. Reversing Entries

Reversing entries is an **optional step** that a company may perform at the beginning of the next accounting period.

Perpetual Inventory System

- Inventory account increased with each purchase.
- Inventory account reduced and Cost of Goods Sold account increased with each sale.
- Balance in Inventory account should equal inventory amount on hand.
- No Adjusting Entries should be needed.
- Physical inventory performed to confirm balance in Inventory account.

LO 8 Explain how to adjust inventory accounts at year-end.

Periodic Inventory System

- Inventory account remains unchanged during period.
- Purchases account increased with each purchase.

At end of accounting period:

- Purchases account closed.
- Inventory account adjusted to physical count.

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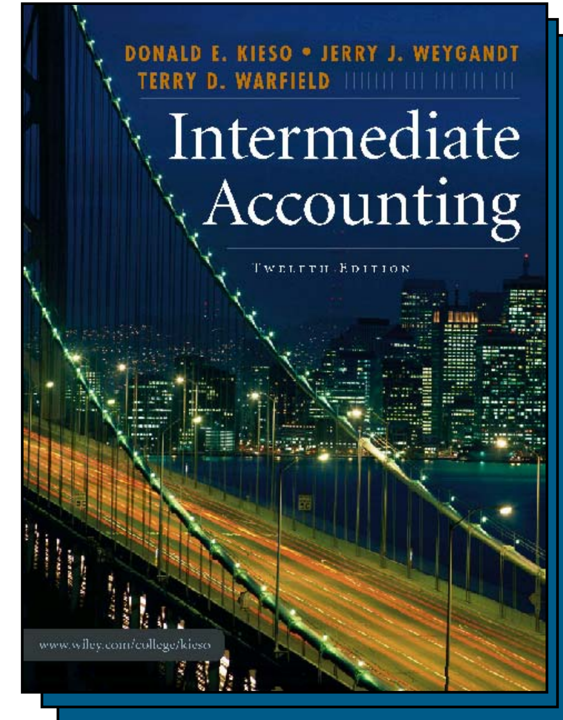
Income Statement and Related Information

Chapter 4

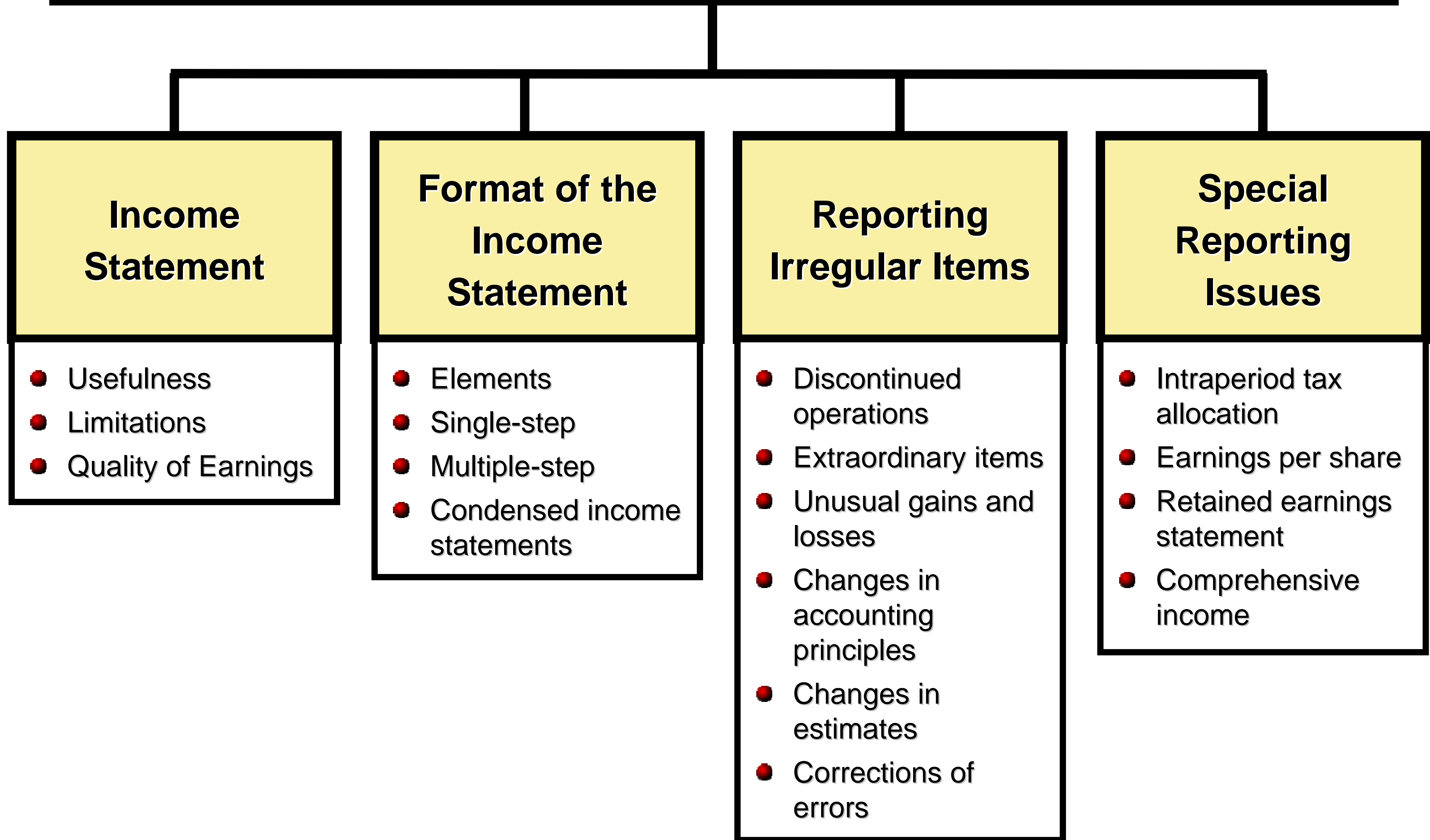
Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Understand the uses and limitations of an income statement.
2. Prepare a single-step income statement.
3. Prepare a multiple-step income statement.
4. Explain how to report irregular items.
5. Explain intraperiod tax allocation.
6. Identify where to report earnings per share information.
7. Prepare a retained earnings statement.
8. Explain how to report other comprehensive income.



Income Statement and Related Information
Income Statement
Usefulness
Limitations
Quality of Earnings
Format of the Income Statement
Elements
Single-step
Multiple-step
Condensed income statements
Reporting Irregular Items
Discontinued operations
Extraordinary items
Unusual gains and losses
Changes in accounting principles
Changes in estimates
Corrections of errors
Special Reporting Issues
Intraperiod tax allocation
Earnings per share
Retained earnings statement
Comprehensive income

Income Statement

Usefulness of the Income Statement

- Evaluate past performance.
- Predicting future performance.
- Help assess the risk or uncertainty of achieving future cash flows.

LO 1 Understand the uses and limitations of an income statement.

Income Statement

Limitations of the Income Statement

- Companies omit items that cannot be measured reliably.
- Income is affected by the accounting methods employed.
- Income measurement involves judgment.

LO 1 Understand the uses and limitations of an income statement.

Quality of Earnings

Companies have incentives to **manage income** to meet or beat Wall Street expectations, so that

- the market price of stock increases and
- the value of stock options increase.

Quality of earnings is reduced if earnings management results in information that is less useful for predicting future earnings and cash flows.

Elements of the Income Statement

Revenues – Inflows or other enhancements of assets or settlements of its liabilities that constitute the entity's ongoing major or central operations.

Examples of Revenue Accounts

- Sales
- Fee revenue
- Interest revenue
- Dividend revenue
- Rent revenue

Elements of the Income Statement

Expenses – Outflows or other using-up of assets or incurrences of liabilities that constitute the entity's ongoing major or central operations.

Examples of Expense Accounts

- Cost of goods sold
- Depreciation expense
- Interest expense
- Rent expense
- Salary expense

Elements of the Income Statement

Gains – Increases in equity (net assets) from peripheral or incidental transactions.

Losses - Decreases in equity (net assets) from peripheral or incidental transactions.

Gains and losses can result from

- sale of investments or plant assets,
- settlement of liabilities,
- write-offs of assets.

Single-Step Income Statement

The single-step statement consists of just two groupings:

Revenues
− Expenses
Net Income

} Single-Step

No distinction between Operating and Non-operating categories.

Income Statement (in thousands)		
Revenues:		
Sales	$	285,000
Interest revenue		17,000
Total revenue		302,000
Expenses:		
Cost of goods sold		149,000
Advertising expense		10,000
Depreciation expense		43,000
Interest expense		21,000
Income tax expense		24,000
Total expenses		247,000
Net income	$	55,000
Earnings per share	$	0.75

LO 2 Prepare a single-step income statement.

Single-Step Income Statement

Review

The single-step income statement emphasizes

a. the gross profit figure.

b. total revenues and total expenses.

c. extraordinary items more than it is emphasized in the multiple-step income statement.

d. the various components of income from continuing operations.

Multiple-Step Income Statement

Background

- Separates operating transactions from nonoperating transactions.
- Matches costs and expenses with related revenues.
- Highlights certain intermediate components of income that analysts use.

Multiple-Step Income Statement

The presentation divides information into major sections.

1. Operating Section
2. Nonoperating Section
3. Income tax

Income Statement (in thousands)	
Sales	$ 285,000
Cost of goods sold	149,000
Gross profit	136,000
Operating expenses:	
Advertising expense	10,000
Depreciation expense	43,000
Total operating expense	53,000
Income from operations	83,000
Other revenue (expense):	
Interest revenue	17,000
Interest expense	(21,000)
Total other	(4,000)
Income before taxes	79,000
Income tax expense	24,000
Net income	$ 55,000
Earnings per share	$ 0.75

LO 3 Prepare a multiple-step income statement.

Multiple-Step Income Statement

Review

A separation of operating and non operating activities of a company exists in

a. both a multiple-step and single-step income statement.

b. a multiple-step but not a single-step income statement.

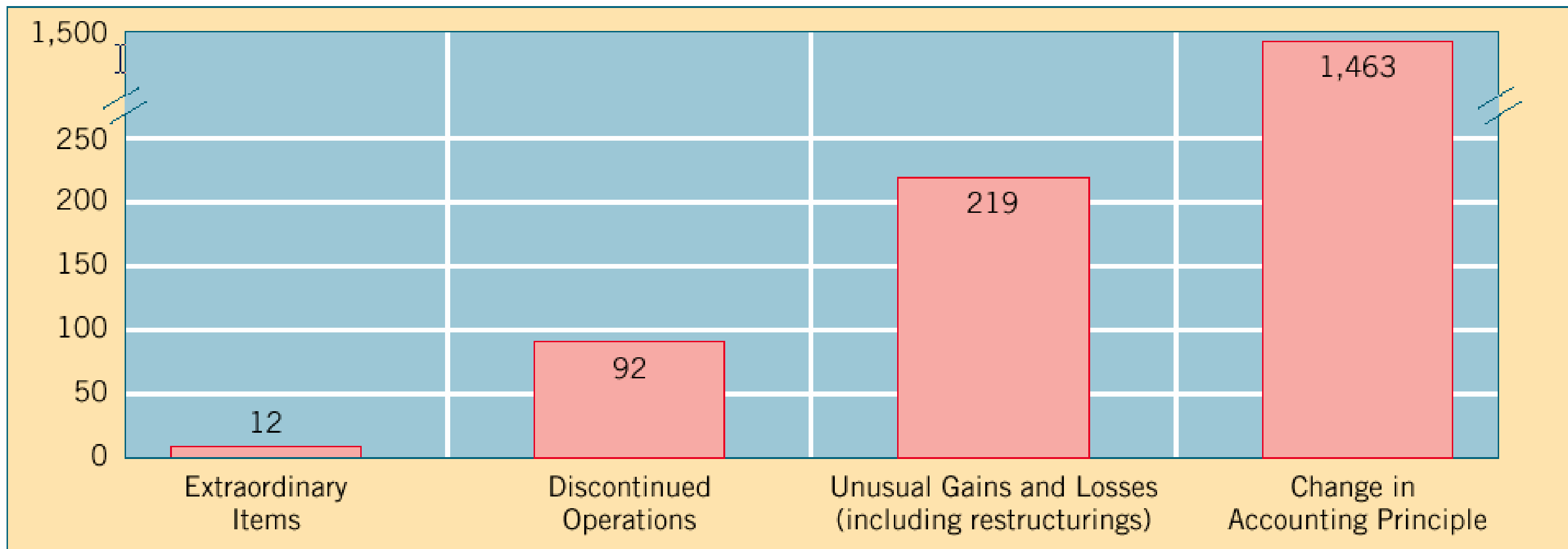
c. a single-step but not a multiple-step income statement.

d. neither a single-step nor a multiple-step income statement.

Reporting Irregular Items

Companies are required to report irregular items in the financial statements so users can determine the long-run earning power of the company.

Illustration 4-5
Number of Irregular Items Reported in a Recent Year by 600 Large Companies



LO 4 Explain how to report irregular items.

Reporting Irregular Items

Irregular items fall into six categories

- Discontinued operations.
- Extraordinary items.
- Unusual gains and losses.
- Changes in accounting principle.
- Changes in estimates.
- Corrections of errors.

Reporting Irregular Items

Discontinued Operations occurs when,

(a) company eliminates the

- results of operations and
- cash flows of a component.

(b) there is no significant continuing involvement in that component.

Amount reported "net of tax."

Reporting Discontinued Operations

Exercise: McCarthy Corporation had after tax income from continuing operations of $55,000,000 in 2007. During 2007, it disposed of its restaurant division at a pretax loss of $270,000. Prior to disposal, the division operated at a pretax loss of $450,000 in 2007. Assume a tax rate of 30%. Prepare a partial income statement for McCarthy.

Income from continuing operations	$55,000,000
Discontinued operations:	
Loss from operations, net of $135,000 tax	315,000
Loss on disposal, net of $81,000 tax	189,000
Total loss on discontinued operations	504,000
Net income	$54,496,000

LO 4 Explain how to report irregular items.

Reporting Discontinued Operations

Discontinued Operations are reported after "Income from continuing operations."

Income Statement (in thousands)	
Sales	$ 285,000
Cost of goods sold	149,000
Other revenue (expense):	
Interest revenue	17,000
Interest expense	(21,000)
Total other	(4,000)
Income before taxes	79,000
Income tax expense	24,000
Income from continuing operations	55,000
Discontinued operations:	
Loss from operations, net of tax	**315**
Loss on disposal, net of tax	**189**
Total loss on discontinued operations	**504**
Net income	$ 54,496

Previously labeled as "Net Income".

Moved to

LO 4 Explain how to report irregular items.

Reporting Irregular Items

Extraordinary items are nonrecurring material items that differ significantly from a company's typical business activities.

Extraordinary Item must be both of an

- Unusual Nature and
- Occur Infrequently

Company must consider the **environment** in which it operates.

Amount reported "net of tax."

LO 4 Explain how to report irregular items.

Reporting Extraordinary Items

Are these items Extraordinary?

(a) A large portion of a tobacco manufacturer's crops are destroyed by a hail storm. Severe damage from hail storms in the locality where the manufacturer grows tobacco is rare.

YES

(b) A citrus grower's Florida crop is damaged by frost.

NO

(c) A company sells a block of common stock of a publicly traded company. The block of shares, which represents less than 10% of the publicly-held company, is the only security investment the company has ever owned.

YES

Reporting Extraordinary Items

Are these items Extraordinary?

(d) A large diversified company sells a block of shares from its portfolio of securities which it has acquired for investment purposes. This is the first sale from its portfolio of securities.

NO

(e) An earthquake destroys one of the oil refineries owned by a large multi-national oil company. Earthquakes are rare in this geographical location.

YES

(f) A company experiences a material loss in the repurchase of a large bond issue that has been outstanding for 3 years. The company regularly repurchases bonds of this nature.

NO

Reporting Extraordinary Items

Exercise: McCarthy Corporation had after tax income from continuing operations of $55,000,000 in 2007. In addition, it suffered an unusual and infrequent pretax loss of $770,000 from a volcano eruption. The corporation's tax rate is 30%. Prepare a partial income statement for McCarthy Corporation beginning with income from continuing operations.

Income from continuing operations	$55,000,000
Extraordinary loss, net of $231,000 tax	539,000
Net income	$54,461,000

($770,000 x 30% = $231,000 tax)

Reporting Extraordinary Items

Extraordinary Items are reported after "Income from continuing operations."

Income Statement (in thousands)	
Sales	$ 285,000
Cost of goods sold	149,000
Other revenue (expense):	
Interest revenue	17,000
Interest expense	(21,000)
Total other	(4,000)
Income before taxes	79,000
Income tax expense	24,000
Income from continuing operations	55,000
Extraordinary loss, net of tax	**539**
Net income	$ 54,461

Previously labeled as "Net Income".

Moved to

LO 4 Explain how to report irregular items.

Reporting Irregular Items

Reporting when both Discontinued Operations and Extraordinary Items are present.

Income Statement (in thousands)	
Sales	$ 285,000
Cost of goods sold	149,000
Interest expense	(21,000)
Total other	(4,000)
Income before taxes	79,000
Income tax expense	24,000
Income from continuing operations	55,000
Discontinued operations:	
Loss from operations, net of tax	**315**
Loss on disposal, net of tax	**189**
Total loss on discontinued operations	**504**
Income before extraordinary item	54,496
Extraordinary loss, net of tax	**539**
Net income	$ 53,957

Discontinued Operations

Extraordinary Item

LO 4 Explain how to report irregular items.

Reporting Irregular Items

Review

Irregular transactions such as discontinued operations and extraordinary items should be reported separately in

a. both a single-step and multiple-step income statement.

b. a single-step income statement only.

c. a multiple-step income statement only.

d. neither a single-step nor a multiple-step income statement.

Reporting Irregular Items

Unusual Gains and Losses

Material items that are **unusual** or **infrequent**, but not both, should be reported in a separate section just above "Income from continuing operations before income taxes."

Examples can include:

- Write-downs of inventories
- Foreign exchange transaction gains and losses

The Board prohibits net-of-tax treatment for these items.

Reporting Irregular Items

Changes in Accounting Principles

- Retrospective adjustment
- Cumulative effect adjustment to beginning retained earnings
- Approach preserves comparability
- Examples include:
  - change from FIFO to average cost
  - change from the percentage-of-completion to the completed-contract method

Reporting Irregular Items

Changes in Estimate

- Accounted for in the period of change and future periods
- Not handled retrospectively
- Not considered errors or extraordinary items
- Examples include:
  - Useful lives and salvage values of depreciable assets
  - Allowance for uncollectible receivables
  - Inventory obsolescence

Change in Estimate Example

Arcadia HS, purchased equipment for $510,000 which was estimated to have a useful life of 10 years with a salvage value of $10,000 at the end of that time. Depreciation has been recorded for 7 years on a straight-line basis. In 2005 (year 8), it is determined that the total estimated life should be 15 years with a salvage value of $5,000 at the end of that time.

Questions:

- What is the journal entry to correct the prior years' depreciation?
- Calculate the depreciation expense for 2005.

No Entry Required

Change in Estimate Example

After 7 years

Equipment cost	$510,000
Salvage value	- 10,000
Depreciable base	500,000
Useful life (original)	10 years
Annual depreciation	$ 50,000

$ 50,000 × 7 years = $350,000

First, establish NBV at date of change in estimate.

Balance Sheet (Dec. 31, 2004)

Fixed Assets:

Equipment	$510,000
Accumulated depreciation	350,000
Net book value (NBV)	$160,000

Change in Estimate Example

After 7 years

Net book value	$160,000
Salvage value (new)	5,000
Depreciable base	155,000
Useful life remaining	8 years
Annual depreciation	$ 19,375

Depreciation Expense calculation for 2005.

Journal entry for 2005

	Debit	Credit
Depreciation expense	19,375	
Accumulated depreciation		19,375

Reporting Irregular Items

Corrections of Errors

- Result from:
  - mathematical mistakes
  - mistakes in application of accounting principles
  - oversight or misuse of facts
- Corrections treated as **prior period adjustments**
- Adjustment to the beginning balance of retained earnings

Intraperiod Tax Allocation

Relates the income tax expense to the specific items that give rise to the amount of the tax expense.

Income tax is allocated to the following items:

(1) Income from continuing operations before tax

(2) Discontinued operations

(3) Extraordinary items

(4) Changes in accounting principle

(5) Correction of errors

LO 5 Explain intraperiod tax allocation.

Example of Intraperiod Tax Allocation

Income Statement (in thousands)		Total Tax Allocated
Sales	$ 285,000	
Cost of good[s sold]	149,000	
Interest ex[pense]	(21,000)	
Total other	(4,000)	
Income from cont. oper. before taxes	79,000	
Income tax expense	24,000	$24,000
Income from continuing operations	55,000	
Discontinued operations:		
Loss on operations, net of $135 tax	315	(135)
Loss on disposal, net of $61 tax	189	(61)
Total loss on discontinued operations	504	
Income before extraordinary item	54,496	
Extraordinary loss, net of $231 tax	539	(231)
Net income	$ 53,957	$23,573

Note: losses reduce the total tax

LO 5 Explain intraperiod tax allocation.

Earnings Per Share

Calculation

$$\frac{\text{Net income - Preferred dividends}}{\text{Weighted average number of shares outstanding}}$$

- An important business indicator.
- Measures the dollars earned by each share of common stock.
- Must be disclosed on the the income statement.

LO 6 Identify where to report earnings per share information.

Earnings Per Share

Brief Exercise 4-8 In 2007, Kirby Puckett Corporation reported net income of $1,200,000. It declared and paid preferred stock dividends of $250,000. During 2007, Puckett had a weighted average of 190,000 common shares outstanding. Compute Puckett's 2007 earnings per share.

$$\frac{\text{Net income - Preferred dividends}}{\text{Weighted average number of shares outstanding}}$$

$$\frac{\$1{,}200{,}000 \quad - \quad \$250{,}000}{190{,}000} = \mathbf{\$5.00} \text{ per share}$$

LO 6 Identify where to report earnings per share information.

Retained Earnings Statement

Changes in Retained Earnings

Increase	Decrease
• Net income • Change in accounting principle • Error corrections	• Net loss • Dividends • Change in accounting principles • Error corrections

LO 7 Prepare a retained earnings statement.

Retained Earnings Statement

Woods, Inc.
Statement of Retained Earnings
For the Year Ended December 31, 2007

Balance, January 1	$	1,050,000
Net income		360,000
Dividends		(300,000)
Balance, December 31	$	1,110,000

Before issuing the report for the year ended December 31, 2007, you discover a $50,000 error (net of tax) that caused the 2006 inventory to be overstated (overstated inventory caused COGS to be lower and thus net income to be higher in 2006). Would this discovery have any impact on the reporting of the Statement of Retained Earnings for 2007?

LO 7 Prepare a retained earnings statement.

Retained Earnings Statement

Woods, Inc.
Statement of Retained Earnings
For the Year Ended December 31, 2007

Balance, January 1, as previously reported	$	1,050,000
Prior period adjustment - error correction		(50,000)
Balance, January 1, as restated		1,000,000
Net income		360,000
Dividends		(300,000)
Balance, December 31	$	1,060,000

LO 7 Prepare a retained earnings statement.

Retained Earnings Statement

Restricted Retained Earnings

Disclosed

- In notes to the financial statements
- As Appropriated Retained Earnings

Comprehensive Income

All changes in equity during a period except those resulting from investments by owners and distributions to owners.

Income Statement (in thousands)	
Sales	$ 285,000
Cost of goods sold	149,000
Gross profit	136,000
Operating expenses:	
Advertising expense	10,000
Depreciation expense	43,000
Total operating expense	53,000
Income from operations	83,000
Other revenue (expense):	
Interest revenue	17,000
Interest expense	(21,000)
Total other	(4,000)
Income before taxes	79,000
Income tax expense	24,000
Net income	$ 55,000

+

Other Comprehensive Income

- Unrealized gains and losses on available-for-sale securities.
- Translation gains and losses on foreign currency.
- Plus others

Reported in Stockholders' Equity

LO 8 Explain how to report other comprehensive income.

Comprehensive Income

Review

Gains and losses that bypass net income but affect stockholders' equity are referred to as

a. comprehensive income.

b. other comprehensive income.

c. prior period income.

d. unusual gains and losses.

LO 8 Explain how to report other comprehensive income.

Comprehensive Income

Three approaches to reporting Comprehensive Income (SFAS No. 130, June 1997):

1. A second separate income statement;
2. A combined income statement of comprehensive income; or
3. As part of the statement of stockholders' equity

Comprehensive Income

Illustration 4-19

Two-Statement Format for Comprehensive Income

V. GILL INC.
INCOME STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2007

Sales revenue	$800,000
Cost of goods sold	600,000
Gross profit	200,000
Operating expenses	90,000
Net income	$110,000

V. GILL INC.
COMPREHENSIVE INCOME STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2007

Net income	$110,000
Other comprehensive income	
Unrealized holding gain, net of tax	30,000
Comprehensive income	$140,000

LO 8 Explain how to report other comprehensive income.

Comprehensive Income

Combined Income Statement

V. Gill Inc.
Combined Statement of Comprehensive Income
For the Year Ended December 31, 2007

Sales revenue	$ 800,000
Cost of goods sold	600,000
Gross profit	200,000
Operating expenses	90,000
Net income	110,000
Unrealized holding gain, net of tax	30,000
Comprehensive income	$ 140,000

LO 8 Explain how to report other comprehensive income.

Comprehensive Income

Statement of Stockholders' Equity (most common)

Illustration 4-20

V. GILL INC.
STATEMENT OF STOCKHOLDERS' EQUITY
FOR THE YEAR ENDED DECEMBER 31, 2007

	Total	Comprehensive Income	Retained Earnings	Accumulated Other Comprehensive Income	Common Stock
Beginning balance	$410,000		$ 50,000	$60,000	$300,000
Comprehensive income					
Net income	110,000	$110,000	110,000		
Other comprehensive income					
Unrealized holding gain, net of tax	30,000	30,000		30,000	
Comprehensive income		$140,000			
Ending balance	$550,000		$160,000	$90,000	$300,000

LO 8 Explain how to report other comprehensive income.

Comprehensive Income

Balance Sheet Presentation

Illustration 4-21

V. GILL INC.
BALANCE SHEET
AS OF DECEMBER 31, 2007
(STOCKHOLDERS' EQUITY SECTION)

Stockholders' equity	
Common stock	$300,000
Retained earnings	160,000
Accumulated other comprehensive income	90,000
Total stockholders' equity	$550,000

Regardless of the display format used, the *accumulated other comprehensive income* of $90,000 is reported in the stockholders' equity section of the balance sheet.

LO 8 Explain how to report other comprehensive income.

Comprehensive Income

Review

The FASB decided that the components of other comprehensive income must be displayed

a. in a second separate income statement.

b. in a combined income statement of comprehensive income.

c. as a part of the statement of stockholders' equity.

d. Any of these options is permissible.

LO 8 Explain how to report other comprehensive income.

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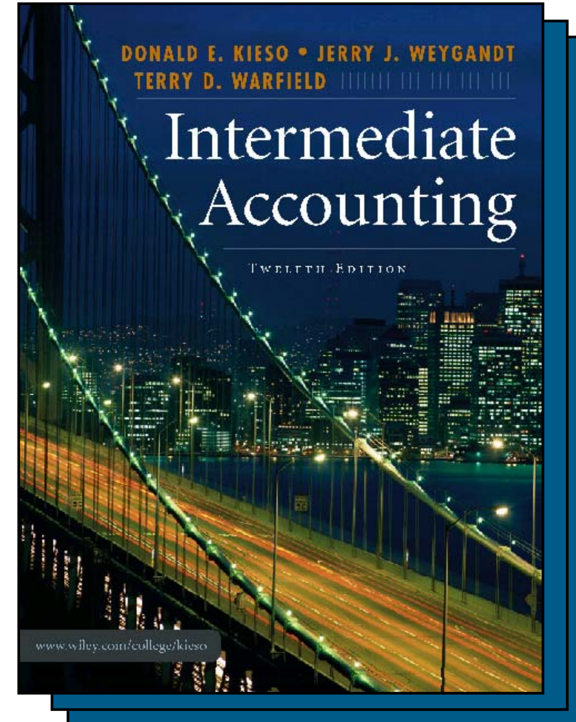
Balance Sheet and Statement of Cash Flows

Chapter 5



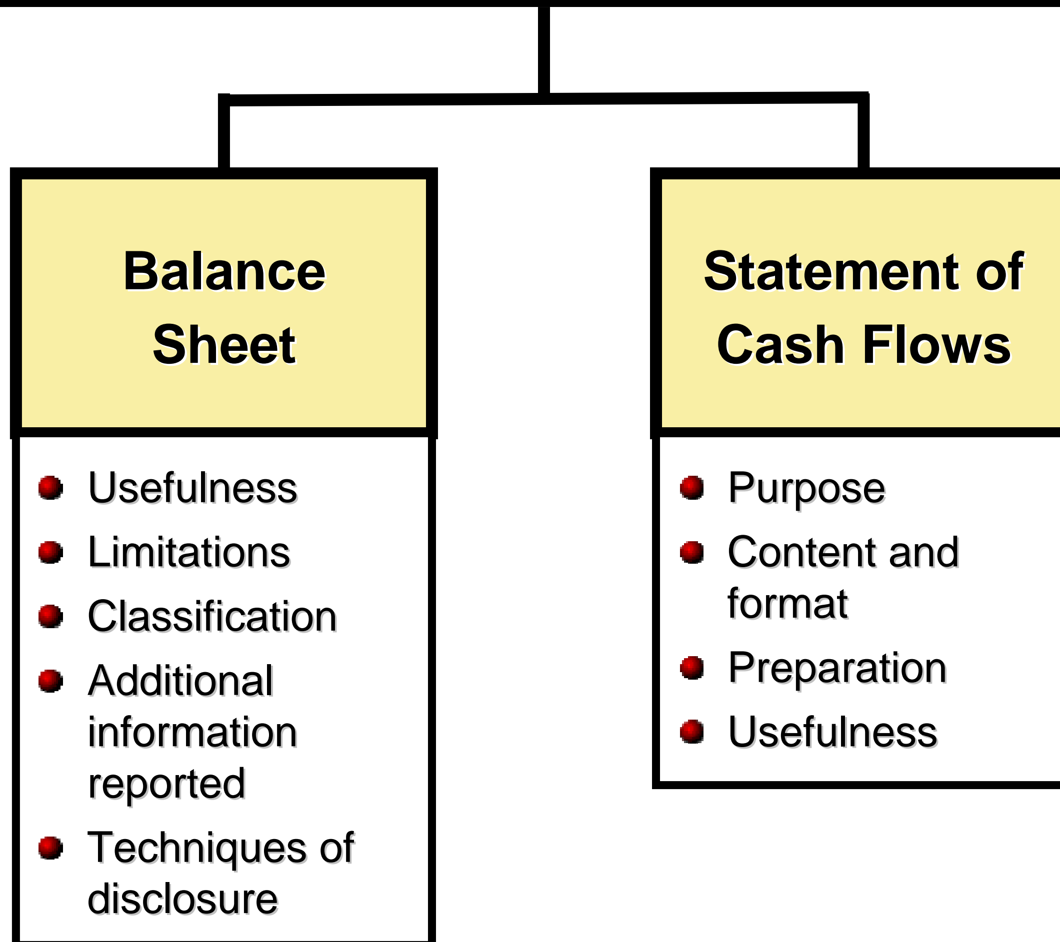
Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield

Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Explain the uses and limitations of a balance sheet.
2. Identify the major classifications of the balance sheet.
3. Prepare a classified balance sheet using the report and account formats.
4. Determine which balance sheet information requires supplemental disclosure.
5. Describe the major disclosure techniques for the balance sheet.
6. Indicate the purpose of the statement of cash flows.
7. Identify the content of the statement of cash flows.
8. Prepare a statement of cash flows.
9. Understand the usefulness of the statement of cash flows.

Balance Sheet and Statement of Cash Flows



Balance Sheet

Usefulness of the Balance Sheet

- Evaluating the capital structure.
- Assess risk and future cash flows.
- Analyze the company's:
  - Liquidity,
  - Solvency, and
  - Financial flexibility.

LO 1 Explain the uses and limitations of a balance sheet.

Balance Sheet

Limitations of the Balance Sheet

- Most assets and liabilities are reported at historical cost.
- Use of judgments and estimates.
- Many items of financial value are omitted.

Balance Sheet

Classification in the Balance Sheet

Three General Classifications

- Assets, Liabilities, and Stockholders' Equity

Companies further divide these classifications:

Assets	Liabilities and Owners' Equity
Current assets	Current liabilities
Long-term investments	Long-term debt
Property, plant, and equipment	Owners' equity
Intangible assets	Capital stock
Other assets	Additional paid-in capital
	Retained earnings

Illustration 5-1
Balance Sheet Classification

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet

Current Assets

Cash and other assets a company expects to convert into cash, sell, or consume either in one year or in the operating cycle, whichever is longer.

Illustration 5-2
Accounts and basis of valuation

Item	Basis of Valuation
Cash and cash equivalents	Fair value
Short-term investments	Generally, fair value
Receivables	Estimated amount collectible
Inventories	Lower of cost or market
Prepaid expenses	Cost

Balance Sheet

Review

The correct order to present current assets is

a. Cash, accounts receivable, prepaid items, inventories.

b. Cash, accounts receivable, inventories, prepaid items.

c. Cash, inventories, accounts receivable, prepaid items.

d. Cash, inventories, prepaid items, accounts receivable.

Balance Sheet - "Current Assets"

Cash

- Generally any monies available "on demand."
- **Cash equivalents** are short-term highly liquid investments that will mature within three months or less.
- Any restrictions or commitments must be disclosed.

Illustration 5-3

Alterra Healthcare Corp.

Current assets	
Cash	$18,728,000
Restricted cash and investments (Note 7)	7,191,000

Note 7: Restricted Cash and Investments. Restricted cash and investments consist of certificates of deposit restricted as collateral for lease arrangements and debt service with interest rates ranging from 4.0% to 5.5%.

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet – "Current Assets"

Short-Term Investments

Portfolios	Type	Valuation	Classification
Held-to-Maturity	Debt	Amortized Cost	Current or Noncurrent
Trading	Debt or Equity	Fair Value	Current
Available-for-Sale	Debt or Equity	Fair Value	Current or Noncurrent

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet – "Current Assets"

Receivables

Claims held against customers and others for money, goods, or services.

- Accounts receivable – oral promises
- Notes receivable – written promises

Major categories of receivables should be shown in the balance sheet or the related notes.

Balance Sheet – "Current Assets"

Accounts Receivable – Presentation Options

1

Current Assets:		
Cash		$ 346
Accounts receivable	500	
Less allowance for doubtful accounts	25	475
Inventory		812
Total current assets		$1,633

2

Current Assets:	
Cash	$ 346
Accounts receivable, net of $25 allowance	475
Inventory	812
Total current assets	$1,633

Balance Sheet – "Current Assets"

Inventories

Company discloses:

- basis of valuation (e.g., lower-of-cost-or-market) and
- the method of pricing (e.g., FIFO or LIFO).

Balance Sheet – "Current Assets"

Prepaid Expenses

Payment of cash, that is recorded as an asset because service or benefit will be received in the future.

Cash Payment **BEFORE** Expense Recorded

Prepayments often occur in regard to:

- insurance
- supplies
- advertising
- rent
- maintenance on equipment

Balance Sheet – "Noncurrent Assets"

Long-Term Investments

Generally consists of four types:

- **Securities**
- **Fixed assets**
- **Special funds**
- **Nonconsolidated subsidiaries** or affiliated companies.

Balance Sheet – "Noncurrent Assets"

Long-Term Investments

Securities

- bonds,
- stock, and
- long-term notes

For marketable securities, management's intent determines current or noncurrent classification.

Balance Sheet (in thousands)	
Current assets	
Cash	$ 285,000
Investments:	
Invesment in ABC bonds	321,657
Investment in UC Inc.	253,980
Notes receivable	150,000
Land held for speculation	550,000
Sinking fund	225,000
Pension fund	653,798
Cash surrender value	84,321
Investment in Uncon. Sub.	457,836
Total investments	2,696,592
Property, Plant, and Equip.	
Building	1,375,778
Land	975,000

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet – "Noncurrent Assets"

Long-Term Investments

Fixed Assets

- Land held for speculation

Balance Sheet (in thousands)	
Current assets	
Cash	$ 285,000

Investments:	
Invesment in ABC bonds	321,657
Investment in UC Inc.	253,980
Notes receivable	150,000
Land held for speculation	550,000
Sinking fund	225,000
Pension fund	653,798
Cash surrender value	84,321
Investment in Uncon. Sub.	457,836
Total investments	2,696,592
Property, Plant, and Equip.	
Building	1,375,778
Land	975,000

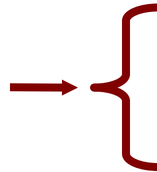
LO 2 Identify the major classifications of the balance sheet.

Balance Sheet – "Noncurrent Assets"

Long-Term Investments

Special Funds

- Sinking fund
- Pensions fund
- Cash surrender value of life insurance



Balance Sheet (in thousands)	
Current assets	
Cash	$ 285,000
Investments:	
Invesment in ABC bonds	321,657
Investment in UC Inc.	253,980
Notes receivable	150,000
Land held for speculation	550,000
Sinking fund	225,000
Pension fund	653,798
Cash surrender value	84,321
Investment in Uncon. Sub.	457,836
Total investments	2,696,592
Property, Plant, and Equip.	
Building	1,375,778
Land	975,000

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet – "Noncurrent Assets"

Long-Term Investments

Nonconsolidated Subsidiaries or Affiliated Companies

Balance Sheet (in thousands)	
Current assets	
Cash	$ 285,000

Investments:	
Invesment in ABC bonds	321,657
Investment in UC Inc.	253,980
Notes receivable	150,000
Land held for speculation	550,000
Sinking fund	225,000
Pension fund	653,798
Cash surrender value	84,321
Investment in Uncon. Sub.	457,836
Total investments	2,696,592
Property, Plant, and Equip.	
Building	1,375,778
Land	975,000

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet – "Noncurrent Assets"

Property, Plant, and Equipment

Assets of a durable nature used in the regular operations of the business.

Balance Sheet (in thousands)	
Current assets	
Cash	$ 285,000
Total investments	2,696,592
Property, Plant, and Equip.	
Building	1,375,778
Land	975,000
Machinery and equipment	234,958
Capital leases	384,650
Leasehold improvements	175,000
Accumulated depreciation	(975,000)
Total PP&E	2,170,386
Intangibles	
Goodwill	3,000,000
Patents	177,000
Trademarks	40,000

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet – "Noncurrent Assets"

Intangibles

Lack physical substance and are not financial instruments.

- Limited life intangibles amortized.
- Indefinite-life intangibles tested for impairment.

Balance Sheet (in thousands)	
Current assets	
Cash	$ 285,000
Accumulated depreciation	(975,000)
Total PP&E	2,170,386
Intangibles	
Goodwill	2,000,000
Patents	177,000
Trademark	40,000
Franchises	125,000
Copyright	55,000
Total intangibles	2,397,000
Other assets	
Prepaid pension costs	133,000
Deferred income tax	40,000
Total other	173,000

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet – "Exercise"

BE5-6 Mickey Snyder Corporation's adjusted trial balance contained the following asset accounts at December 31, 2007: Prepaid Rent $12,000; Goodwill $40,000; Franchise Fees Receivable $2,000; Franchises $47,000; Patents $33,000; Trademarks $10,000. Prepare the intangible assets section of the balance sheet.

Intangibles	
Goodwill	$ 40,000
Franchises	47,000
Patents	33,000
Trademarks	10,000
Total	$130,000

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet – "Noncurrent Assets"

Other Assets

This section should include only unusual items sufficiently different from assets in the other categories.

Balance Sheet (in thousands)	
Current assets	
Cash	$ 285,000
Intangibles	
Goodwill	2,000,000
Patents	177,000
Trademark	40,000
Franchises	125,000
Copyright	55,000
Total intangibles	2,397,000
Other assets	
Prepaid pension costs	133,000
Deferred income tax	40,000
Total other	173,000
Total Assets	$ 9,210,978

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet

Current Liabilities

"Obligations that a company reasonably expects to liquidate either through the use of current assets or the creation of other current liabilities."

Balance Sheet (in thousands)		
Current liabilities		
Notes payable	$	233,450
Accounts payable		131,800
Accrued compensation		43,000
Unearned revenue		17,000
Income tax payable		23,400
Current maturities LT debt		121,000
Total current liabilities		569,650
Long-term liabilities		
Long-term debt		979,500
Obligations capital lease		345,800
Deferred income taxes		77,909
Total long-term liabilities		2,093,859
Stockholders' equity		

Balance Sheet

Long-Term Liabilities

"Obligations that a company does not reasonably expect to liquidate within the normal operating cycle."

All covenants and restrictions must be disclosed.

Balance Sheet (in thousands)	
Current liabilities	
Notes payable	$ 233,450
Accounts payable	131,800
Accrued compensation	43,000
Unearned revenue	17,000
Income tax payable	23,400
Current maturities LT debt	121,000
Total current liabilities	569,650
Long-term liabilities	
Long-term debt	979,500
Obligations capital lease	345,800
Deferred income taxes	77,909
Total long-term liabilities	2,093,859
Stockholders' equity	

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet – "Exercise"

BE5-9 Included in Ewing Company's December 31, 2007, trial balance are the following accounts: Accounts Payable $240,000; Pension Liability $375,000; Discount on Bonds Payable $24,000; Advances from Customers $41,000; Bonds Payable $400,000; Wages Payable $27,000; Interest Payable $12,000; Income Taxes Payable $29,000. Prepare the long-term liabilities section of the balance sheet.

Long-term liabilities

Pension liability	$375,000
Bonds payable	400,000
Discount on bonds payable	(24,000)
Total	751,000

Balance Sheet

Owners' Equity

Companies usually divide equity into three parts, (1) Capital Stock, (2) Additional Paid-In Capital, and (3) Retained Earnings.

Illustration 5-15

Quanex Corporation
(in thousands)

Stockholders' equity (Note 12):	
Preferred stock, no par value, 1,000,000 shares authorized; 345,000 issued and outstanding	$ 86,250
Common stock, $0.50 par value, 25,000,000 shares authorized; 13,638,005 shares issued and outstanding	6,819
Additional paid-in capital	87,260
Retained earnings	57,263
	$237,592

Balance Sheet Classification Exercise

Account	Classification
(a) Investment in preferred stock	(a) Current asset/Investment
(b) Treasury stock	(b) Equity
(c) Common stock	(c) Equity
(d) Cash dividends payable	(d) Current liability
(e) Accumulated depreciation	(e) Contra-asset
(f) Interest payable	(f) Current liability
(g) Deficit	(g) Equity
(h) Trading securities	(h) Current asset
(i) Unearned revenue	(i) Current liability

LO 2 Identify the major classifications of the balance sheet.

Balance Sheet - Format

Classified Balance Sheet

- **Account form**
- **Report form**

Accounting Trends and Techniques—2004 (New York: AICPA) indicates that all of the 600 companies surveyed use either the "report form" (506) or the "account form" (94), sometimes collectively referred to as the "customary form."

LO 3 Prepare a classified balance sheet using the report and account formats.

Additional Information Reported

There are normally four types of information that are supplemental to account titles and amounts presented in the balance sheet:

- Contingencies
- Accounting Policies
- Contractual Situations
- Fair Values

LO 4 Determine which balance sheet information requires supplemental disclosure.

Techniques of Disclosure

- Parenthetical Explanations
- Notes
- Cross-Reference and Contra Items
- Supporting Schedules
- Terminology

The Statement of Cash Flows

One of the three basic objectives of financial reporting is

"assessing the amounts, timing, and uncertainty of cash flows."

LO 6 Indicate the purpose of the statement of cash flows.

The Statement of Cash Flows

Purpose of the Statement

To provide relevant information about the cash receipts and cash payments of an enterprise during a period.

The statement provides answers to the following questions:

1. Where did the cash come from?
2. What was the cash used for?
3. What was the change in the cash balance?

LO 6 Indicate the purpose of the statement of cash flows.

The Statement of Cash Flows

Content and Format

Three different activities:

- Operating,
- Investing,
- Financing

Illustration 5-24

Statement of Cash Flows	
Cash flows from operating activities	$XXX
Cash flows from investing activities	XXX
Cash flows from financing activities	XXX
Net increase (decrease) in cash	XXX
Cash at beginning of year	XXX
Cash at end of year	$XXX

LO 7 Identify the content of the statement of cash flows.

The Statement of Cash Flows

Content and Format

Operating	Investing	Financing
Cash inflows and outflows from operations.	Cash inflows and outflows from non-current assets.	Cash inflows and outflows from non-current liabilities and equity.

The statement's value is that it helps users evaluate liquidity, solvency, and financial flexibility.

The Statement of Cash Flows

Preparation

Information obtained from several sources:

(1) comparative balance sheets,

(2) the current income statement, and

(3) selected transaction data.

The Statement of Cash Flows

Preparation

BE 5-12 Midwest Beverage Company reported the following items in the most recent year.

		Activity
Net income	$40,000	Operating
Dividends paid	5,000	Financing
Increase in accounts receivable	10,000	Operating
Increase in accounts payable	5,000	Operating
Purchase of equipment (capital expenditure)	8,000	Investing
Depreciation expense	4,000	Operating
Issue of notes payable	20,000	Financing

Required: Prepare a Statement of Cash Flows

The Statement of Cash Flows

Preparation

Statement of Cash Flow (in thousands)		
Operating activities		
Net income	$	40,000
Increase in accounts receivable		(10,000)
Increase in accounts payable		5,000
Depreciation expense		40,000
Cash flow from operations		75,000
Investing activities		
Purchase of equipment		(8,000)
Financing activities		
Proceeds from notes payable		20,000
Dividends paid		(5,000)
Cash flow from financing		15,000
Increase in cash	$	82,000

Noncash credit to revenues.

Noncash charge to expenses.

LO 8 Prepare a statement of cash flows.

Balance Sheet

Review

In preparing a statement of cash flows, which of the following transactions would be considered an investing activity?

a. Sale of equipment at book value

b. Sale of merchandise on credit

c. Declaration of a cash dividend

d. Issuance of bonds payable at a discount receivable.

Additional Information Reported

Significant financing and investing activities that do not affect cash are reported in either a separate schedule at the bottom of the statement of cash flows or in the notes.

Examples include:

- Issuance of common stock to purchase assets.
- Conversion of bonds into common stock.
- Issuance of debt to purchase assets.
- Exchanges on long-lived assets.

Usefulness of the Statement of Cash Flows

Without cash, a company will not survive.

Cash flow from Operations:

- **High amount** - company able to generate sufficient cash to pay its bills.
- **Low amount** - company may have to borrow or issue equity securities to pay bills.

Usefulness of the Statement of Cash Flows

Financial Liquidity

$$\text{Current Cash Debt Coverage Ratio} = \frac{\text{Net Cash Provided by Operating Activities}}{\text{Average Current Liabilities}}$$

Ratio indicates whether the company can pay off its current liabilities from its operations. A ratio near 1:1 is good.

LO 9 Understand the usefulness of the statement of cash flows.

Usefulness of the Statement of Cash Flows

Financial Flexibility

$$\text{Cash Debt Coverage Ratio} = \frac{\text{Net Cash Provided by Operating Activities}}{\text{Average Total Liabilities}}$$

This ratio indicates a company's ability to repay its liabilities from net cash provided by operating activities, without having to liquidate the assets employed in its operations.

Usefulness of the Statement of Cash Flows

Free Cash Flow

Illustration 5-34

NESTOR COMPANY FREE CASH FLOW ANALYSIS	
Net cash provided by operating activities	$411,750
Less: Capital expenditures	(252,500)
Dividends	(19,800)
Free cash flow	$139,450

The amount of discretionary cash flow a company has for purchasing additional investments, retiring its debt, purchasing treasury stock, or simply adding to its liquidity.

LO 9 Understand the usefulness of the statement of cash flows.

Review

The current cash debt coverage ratio is often used to assess

a. financial flexibility.

b. liquidity.

c. profitability.

d. solvency.

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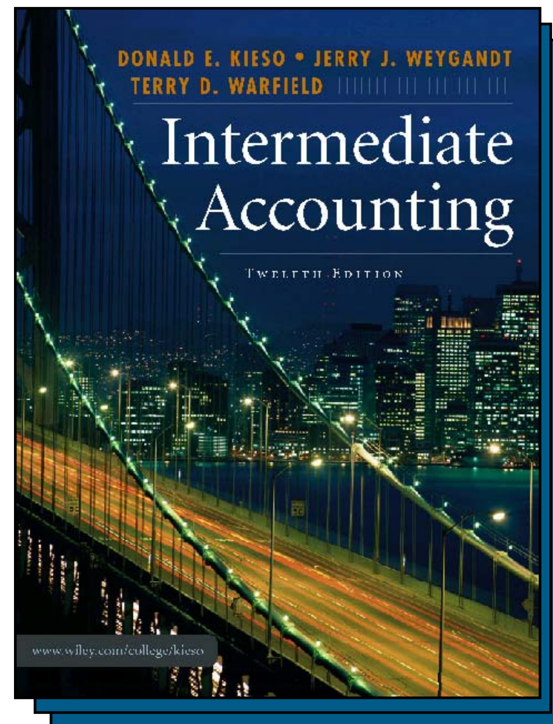
Accounting and the Time Value of Money

Chapter 6

Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield

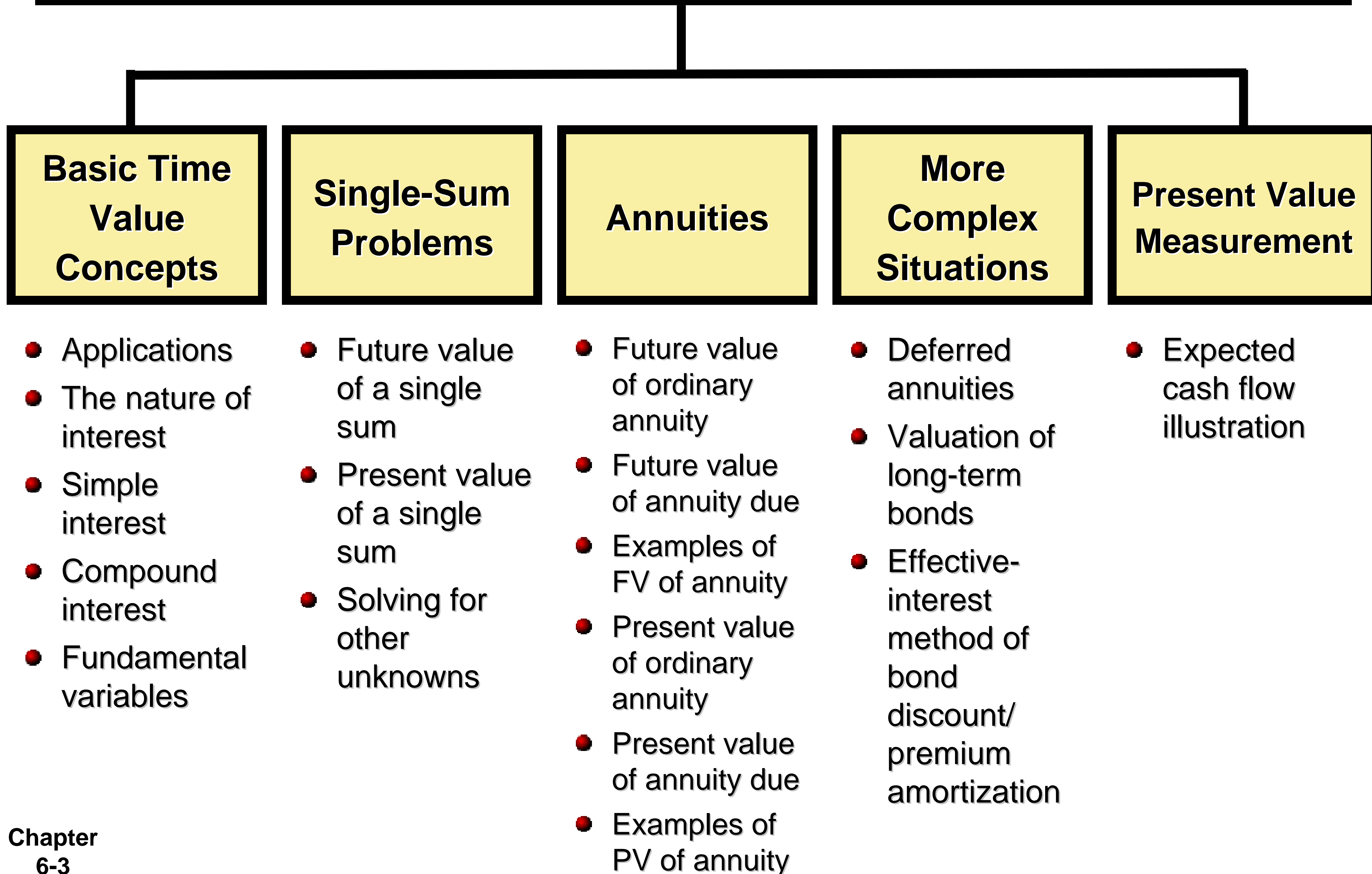


Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Identify accounting topics where the time value of money is relevant.
2. Distinguish between simple and compound interest.
3. Use appropriate compound interest tables.
4. Identify variables fundamental to solving interest problems.
5. Solve future and present value of 1 problems.
6. Solve future value of ordinary and annuity due problems.
7. Solve present value of ordinary and annuity due problems.
8. Solve present value problems related to deferred annuities and bonds.
9. Apply expected cash flows to present value measurement.

Accounting and the Time Value of Money



Basic Time Value Concepts

Time Value of Money

In accounting (and finance), the term indicates that a dollar received today is worth more than a dollar promised at some time in the future.

LO 1 Identify accounting topics where the time value of money is relevant.

Basic Time Value Concepts

Applications to Accounting Topics:

1. Notes
2. Leases
3. Pensions and Other Postretirement Benefits
4. Long-Term Assets
5. Sinking Funds
6. Business Combinations
7. Disclosures
8. Installment Contracts

LO 1 Identify accounting topics where the time value of money is relevant.

Basic Time Value Concepts

Nature of Interest

- Payment for the use of money.
- Excess cash received or repaid over the amount borrowed (principal).

Variables involved in financing transaction:

1. **Principal** - Amount borrowed or invested.
2. **Interest Rate** - A percentage.
3. **Time** - The number of years or portion of a year that the principal is outstanding.

Simple Interest

- Interest computed on the principal only.

ILLUSTRATION:

On January 2, 2007, Tomalczyk borrows $20,000 for 3 years at a rate of 7% per year. Calculate the annual interest cost.

FULL YEAR

Principal		$20,000
Interest rate	x	7%
Annual interest		$ 1,400

Federal law requires the disclosure of interest rates on an **annual basis** in all contracts.

Simple Interest

ILLUSTRATION continued:

On March 31, 2007, Tomalczyk borrows $20,000 for 3 years at a rate of 7% per year. Calculate the interest cost for the year ending December 31, 2007.

PARTIAL YEAR

Principal		$20,000
Interest rate	x	7%
Annual interest	$	1,400
Partial year	x	9/12
Interest for 9 months	$	1,050

Compound Interest

- Computes interest on
  - the principal and
  - on interest earned to date (assuming interest is left on deposit).
- Compound interest is the typical interest computation applied in business situations.

LO 2 Distinguish between simple and compound interest.

Compound Interest

ILLUSTRATION:

On January 2, 2007, Tomalczyk borrows $20,000 for 3 years at a rate of 7% per year. Calculate the total interest cost for all three years, assuming interest is compounded annually.

Date	Compound Interest Calculation	Interest	Accumulated Balance
Jan. 2007			$ 20,000
2007	$20,000 x 7%	$ 1,400	21,400
2008	$21,400 x 7%	1,498	22,898
2009	$22,898 x 7%	1,603	24,501
		$ 4,501	

LO 2 Distinguish between simple and compound interest.

Compound Interest Tables

Five Tables in Chapter 6

Table 1 - Future Value of 1

Table 2 - Present Value of 1

Table 3 - Future Value of an Ordinary Annuity of 1

Table 4 - Present Value of an Ordinary Annuity of 1

Table 5 - Present Value of an Annuity Due of 1

Number of Periods = number of years x the number of compounding periods per year.

Compounding Period Interest Rate = annual rate divided by the number of compounding periods per year.

Compound Interest

Compounding can substantially affect the rate of return. A 9% annual interest compounded daily provides a 9.42% yield.

How compounding affects Effective Yield for a $10,000 investment.

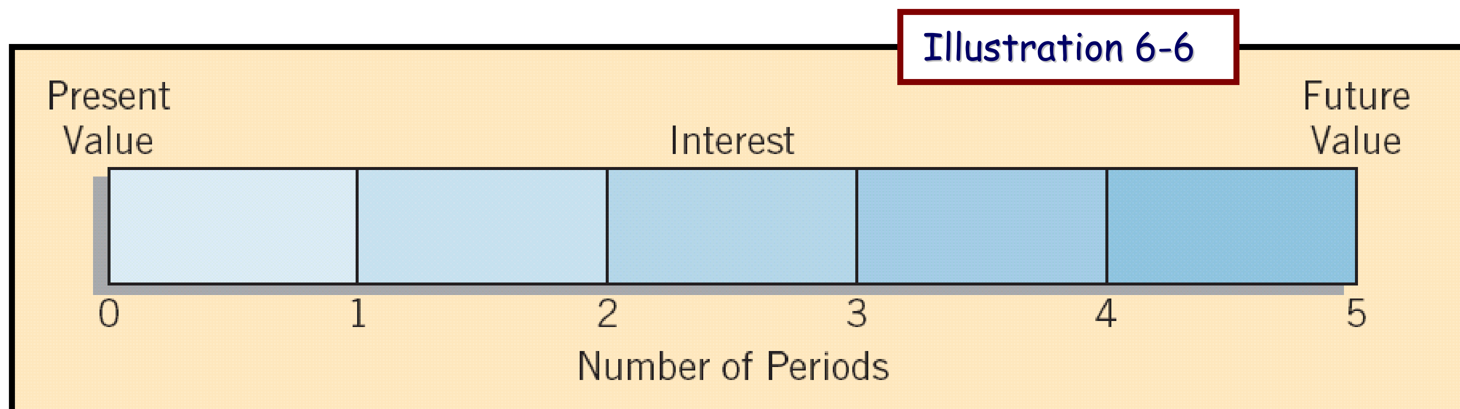
Illustration 6-5

Interest Rate	Compounding Periods				
	Annually	Semiannually	Quarterly	Monthly	Daily
8%	8.00% $800	8.16% $816	8.24% $824	8.30% $830	8.33% $833
9%	9.00% $900	9.20% $920	9.31% $931	9.38% $938	9.42% $942
10%	10.00% $1,000	10.25% $1,025	10.38% $1,038	10.47% $1,047	10.52% $1,052

Compound Interest

Variables Fundamental to Compound Interest

- Rate of Interest
- Number of Time Periods
- Present Value
- Future Value



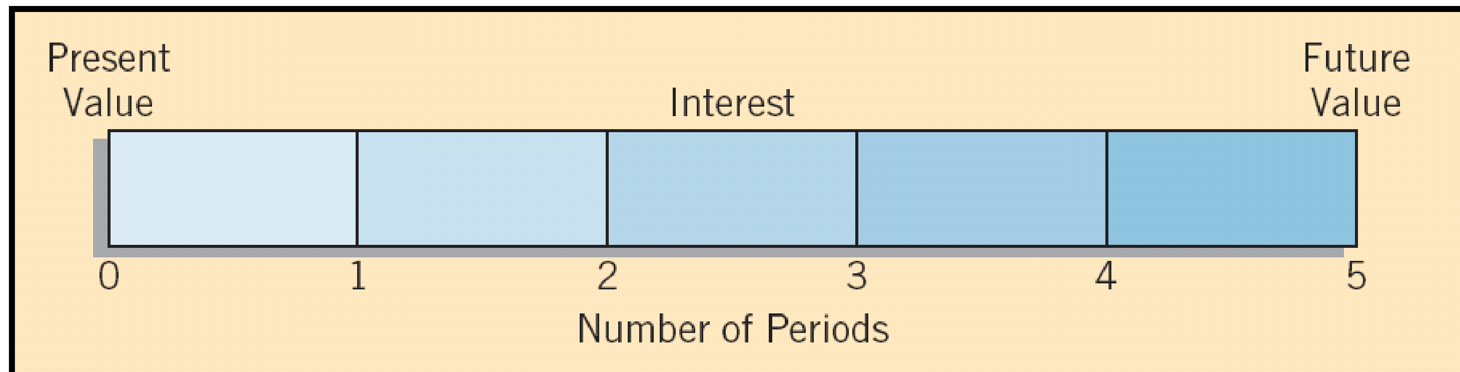
LO 4 Identify variables fundamental to solving interest problems.

Single-Sum Problems

Generally Classified into Two Categories

Unknown **Present Value**

Unknown **Future Value**



LO 5 Solve future and present value of 1 problems.

Single-Sum Problems

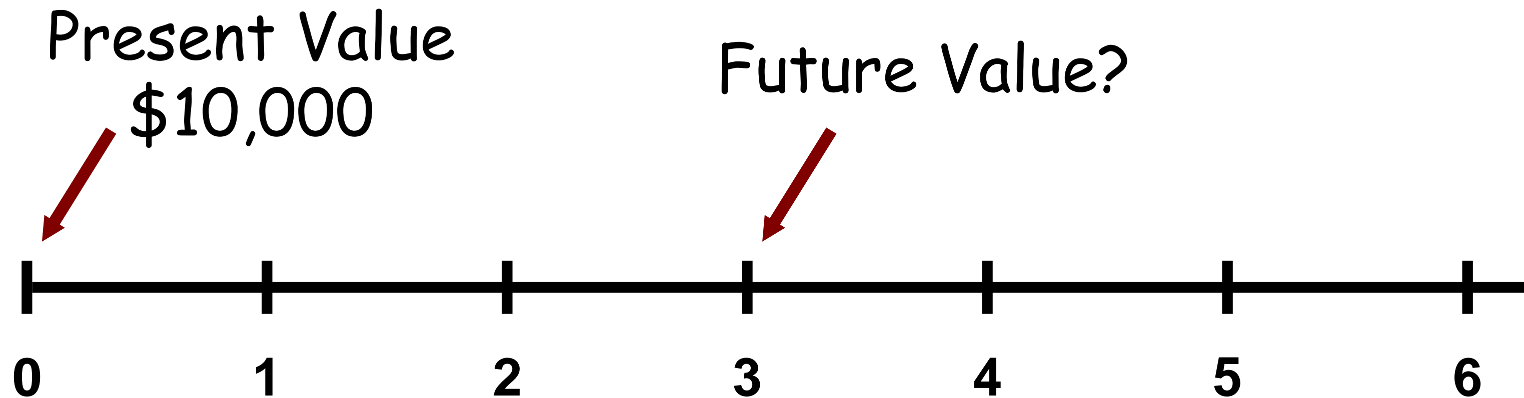
Future Value of a Single Sum

Multiply the future value factor by its present value (principal).

Illustration:

BE6-1 Steve Allen invested $10,000 today in a fund that earns 8% compounded **annually**. To what amount will the investment grow in 3 years?

Single-Sum Problems



BE6-1 Steve Allen invested $10,000 today in a fund that earns 8% compounded **annually**. To what amount will the investment grow in 3 years?

What table do we use?

Single-Sum Problems

Table 6-1

Number of Periods	Discount Rate 2%	4%	6%	8%	10%
1	1.02000	1.04000	1.06000	1.08000	1.10000
2	1.04040	1.08160	1.12360	1.16640	1.21000
3	1.06121	1.12486	1.19102	1.25971	1.33100
4	1.08243	1.16986	1.26248	1.36049	1.46410
5	1.10408	1.21665	1.33823	1.46933	1.61051

What factor do we use?

Single-Sum Problems

Table 6-1

Number of Periods	Discount Rate 2%	4%	6%	8%	10%
1	1.02000	1.04000	1.06000	1.08000	1.10000
2	1.04040	1.08160	1.12360	1.16640	1.21000
3	1.06121	1.12486	1.19102	1.25971	1.33100
4	1.08243	1.16986	1.26248	1.36049	1.46410
5	1.10408	1.21665	1.33823	1.46933	1.61051

$10,000	×	1.25971	=	$12,597
Present Value		Factor		Future Value

LO 5 Solve future and present value of 1 problems.

Single-Sum Problems

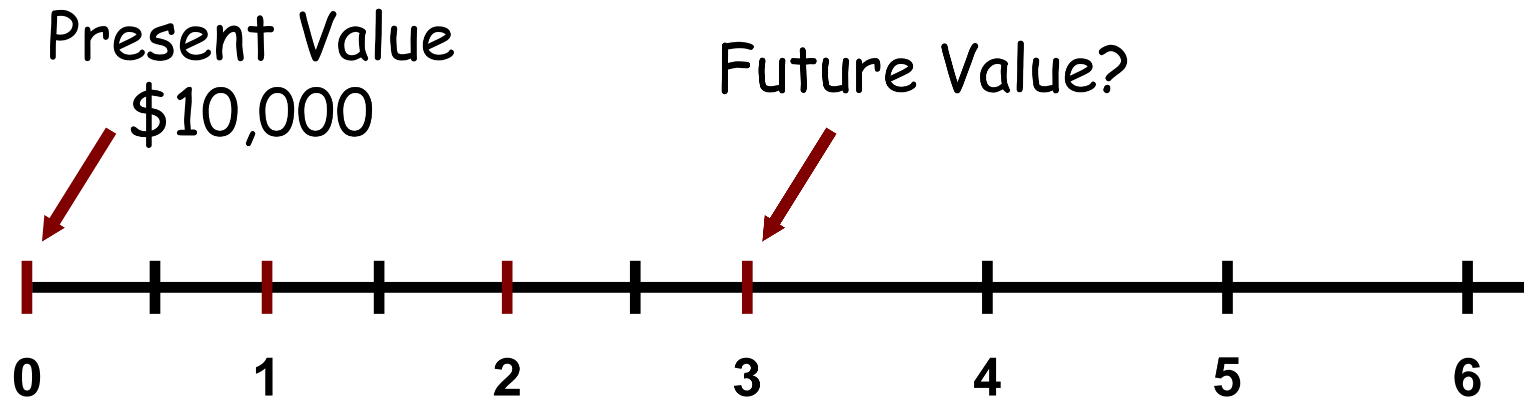
PROOF - Future Value of a Single Sum

Year	Beginning Balance		Rate		Interest		Previous Balance		Year-End Balance
1	$ 10,000	x	8%	=	800	+	10,000	=	$ 10,800
2	10,800	x	8%	=	864	+	10,800	=	11,664
3	11,664	x	8%	=	933	+	11,664	=	12,597

BE6-1 Steve Allen invested $10,000 today in a fund that earns 8% compounded **annually**. To what amount will the investment grow in 3 years?

LO 5 Solve future and present value of 1 problems.

Single-Sum Problems



BE6-1 Steve Allen invested $10,000 today in a fund that earns 8% compounded **semiannually**. To what amount will the investment grow in 3 years?

What table do we use?

Single-Sum Problems

Table 6-1

Number of Periods	Discount Rate 2%	4%	6%	8%	10%
1	1.02000	1.04000	1.06000	1.08000	1.10000
2	1.04040	1.08160	1.12360	1.16640	1.21000
3	1.06121	1.12486	1.19102	1.25971	1.33100
4	1.08243	1.16986	1.26248	1.36049	1.46410
5	1.10408	1.21665	1.33823	1.46933	1.61051
6	1.12616	1.26532	1.41852	1.58687	1.77156

What factor do we use?

- 6 compounding periods
- 4% interest per period

LO 5 Solve future and present value of 1 problems.

Single-Sum Problems

Table 6-1

Number of Periods	Discount Rate 2%	4%	6%	8%	10%
1	1.02000	1.04000	1.06000	1.08000	1.10000
2	1.04040	1.08160	1.12360	1.16640	1.21000
3	1.06121	1.12486	1.19102	1.25971	1.33100
4	1.08243	1.16986	1.26248	1.36049	1.46410
5	1.10408	1.21665	1.33823	1.46933	1.61051
6	1.12616	1.26532	1.41852	1.58687	1.77156

$10,000	x	1.26532	=	$12,653
Present Value		Factor		Future Value

LO 5 Solve future and present value of 1 problems.

Single-Sum Problems

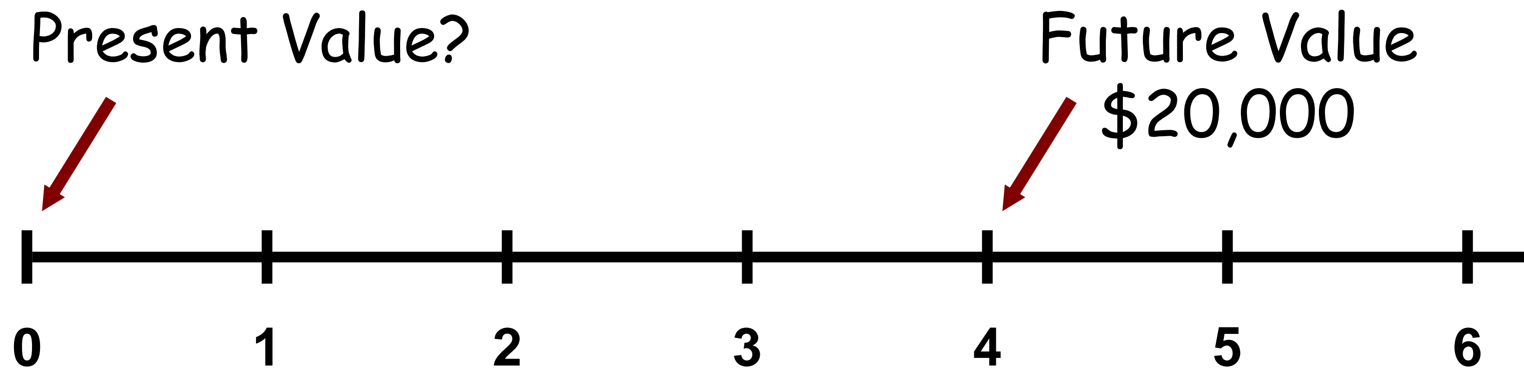
Present Value of a Single Sum

Multiply the present value **factor** by the future value.

Illustration:

BE6-2 Itzak Perlman needs $20,000 in 4 years. What amount must he invest today if his investment earns 12% compounded annually?

Single-Sum Problems



BE6-2 Itzak Perlman needs $20,000 in 4 years. What amount must he invest today if his investment earns 12% compounded **annually**?

What table do we use?

Single-Sum Problems

Table 6-2

Number of Periods	Discount Rate 4%	6%	8%	10%	12%
2	.92456	.89000	.85734	.82645	.79719
4	.85480	.79209	.73503	.68301	.63552
6	.79031	.70496	.63017	.56447	.50663
8	.73069	.62741	.54027	.46651	.40388

What factor do we use?

LO 5 Solve future and present value of 1 problems.

Single-Sum Problems

Table 6-2

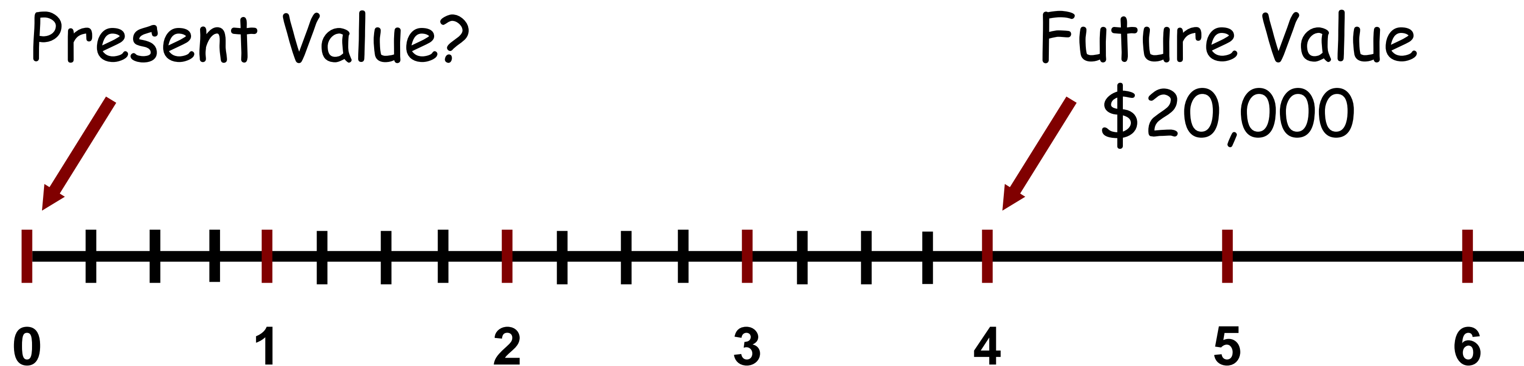
Number of Periods	Discount Rate 4%	6%	8%	10%	12%
2	.92456	.89000	.85734	.82645	.79719
4	.85480	.79209	.73503	.68301	.63552
6	.79031	.70496	.63017	.56447	.50663
8	.73069	.62741	.54027	.46651	.40388

$20,000 × .63552 = $12,710

Future Value — Factor — Present Value

LO 5 Solve future and present value of 1 problems.

Single-Sum Problems



BE6-2 Itzak Perlman needs $20,000 in 4 years. What amount must he invest today if his investment earns 12% compounded **quarterly**?

What table do we use?

Single-Sum Problems

Table 6-2

Number of Periods	Discount Rate 3%	4%	6%	9%	12%
4	0.88849	0.85480	0.79209	0.70843	0.63552
8	0.78941	0.73069	0.62741	0.50187	0.40388
12	0.70138	0.62460	0.49697	0.35554	0.25668
16	0.62317	0.53391	0.39365	0.25187	0.16312

What factor do we use?

Single-Sum Problems

Table 6-2

Number of Periods	Discount Rate 3%	4%	6%	9%	12%
4	0.88849	0.85480	0.79209	0.70843	0.63552
8	0.78941	0.73069	0.62741	0.50187	0.40388
12	0.70138	0.62460	0.49697	0.35554	0.25668
16	0.62317	0.53391	0.39365	0.25187	0.16312

$20,000	x	.62317	=	$12,463
Future Value		Factor		Present Value

LO 5 Solve future and present value of 1 problems.

Annuities

Annuity requires the following:

(1) Periodic payments or receipts (called rents) of the same amount,

(2) The same-length interval between such rents, and

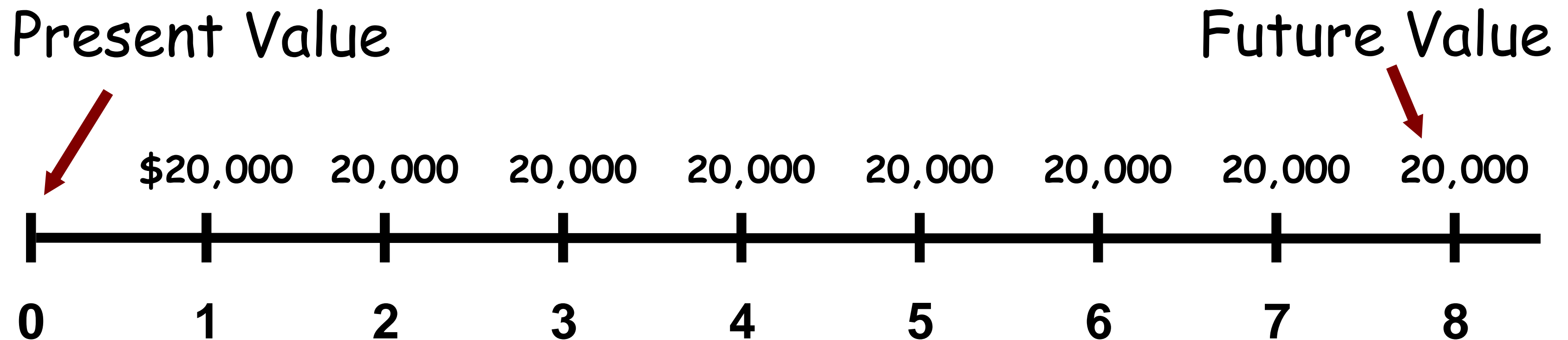
(3) Compounding of interest once each interval.

Two Types	**Ordinary annuity** - rents occur at the end of each period. **Annuity Due** - rents occur at the beginning of each period.

Annuities

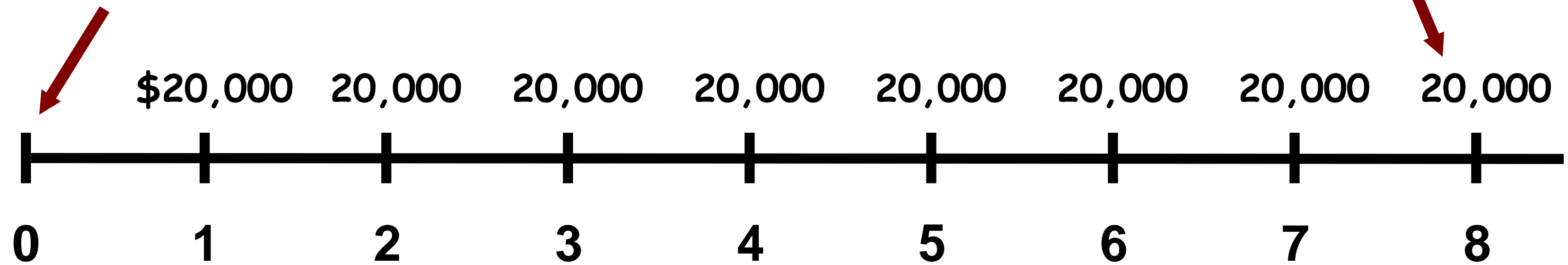
Future Value of an Ordinary Annuity

- Rents occur at the end of each period.
- No interest during 1st period.



LO 6 Solve future value of ordinary and annuity due problems.

Future Value of an Ordinary Annuity



BE6-13 Bayou Inc. will deposit $20,000 in a 12% fund at the end of each year for 8 years beginning December 31, Year 1. What amount will be in the fund immediately after the last deposit?

What table do we use?

LO 6 Solve future value of ordinary and annuity due problems.

Future Value of an Ordinary Annuity

Table 6-3

Number of Periods	Discount Rate 4%	6%	8%	10%	12%
2	2.04000	2.06000	2.08000	2.10000	2.12000
4	4.24646	4.37462	4.50611	4.64100	4.77933
6	6.63298	6.97532	7.33592	7.71561	8.11519
8	9.21423	9.89747	10.63663	11.43589	12.29969
10	12.00611	13.18079	14.48656	15.93743	17.54874

What factor do we use?

LO 6 Solve future value of ordinary and annuity due problems.

Future Value of an Ordinary Annuity

Table 6-3

Number of Periods	Discount Rate 4%	6%	8%	10%	12%
2	2.04000	2.06000	2.08000	2.10000	2.12000
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6	6.63298	6.97532	7.33592	7.71561	8.11519
8	9.21423	9.89747	10.63663	11.43589	12.29969
10	12.00611	13.18079	14.48656	15.93743	17.54874

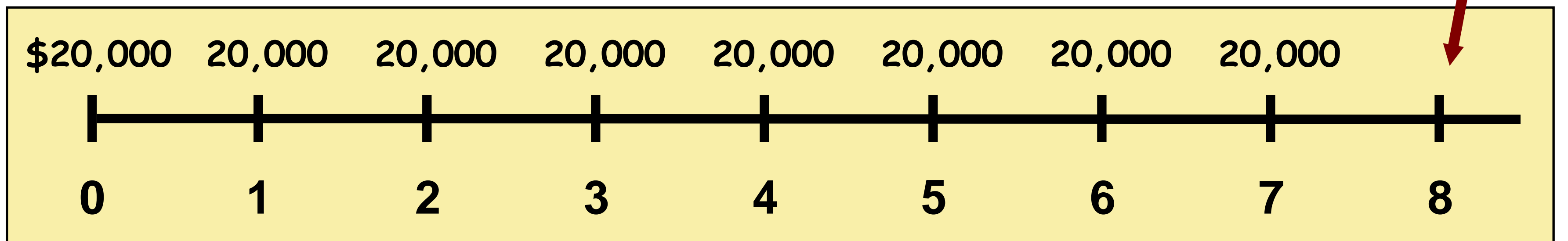
$20,000	x	12.29969	=	$245,994
Deposit		Factor		Future Value

LO 6 Solve future value of ordinary and annuity due problems.

Annuities

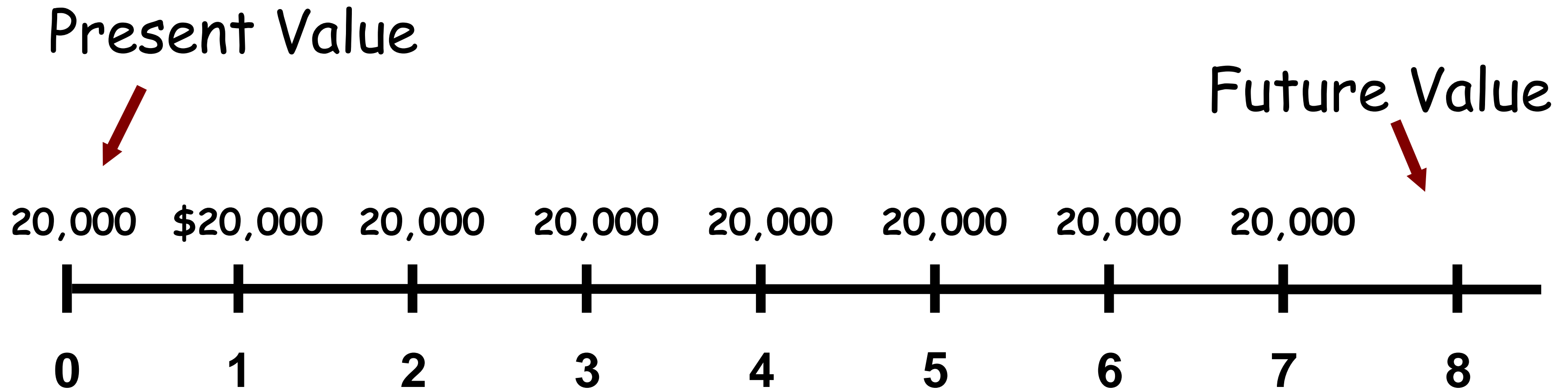
Future Value of an Annuity Due

- Rents occur at the beginning of each period.
- Interest will accumulate during 1st period.
- Annuity Due has one more interest period than Ordinary Annuity.
- Factor = multiply future value of an ordinary annuity factor by 1 plus the interest rate.



LO 6 Solve future value of ordinary and annuity due problems.

Future Value of an Annuity Due



Bayou Inc. will deposit $20,000 in a 12% fund at the beginning of each year for 8 years beginning January 1, Year 1. What amount will be in the fund at the end of Year 8?

What table do we use?

Future Value of an Annuity Due

Table 6-3

Number of Periods	Discount Rate 4%	6%	8%	10%	12%
2	2.04000	2.06000	2.08000	2.10000	2.12000
4	4.24646	4.37462	4.50611	4.64100	4.77933
6	6.63298	6.97532	7.33592	7.71561	8.11519
8	9.21423	9.89747	10.63663	11.43589	12.29969
10	12.00611	13.18079	14.48656	15.93743	17.54874

What factor do we use?

LO 6 Solve future value of ordinary and annuity due problems.

Future Value of an Annuity Due

Table 6-3

Number of Periods	Discount Rate 4%	6%	8%	10%	12%
2	2.04000	2.06000	2.08000	2.10000	2.12000
4	4.24646	4.37462	4.50611	4.64100	4.77933
6	6.63298	6.97532	7.33592	7.71561	8.11519
8	9.21423	9.89747	10.63663	11.43589	12.29969
10	12.00611	13.18079	14.48656	15.93743	17.54874

12.29969 × 1.12 = 13.775652

$20,000 × 13.775652 = $275,513

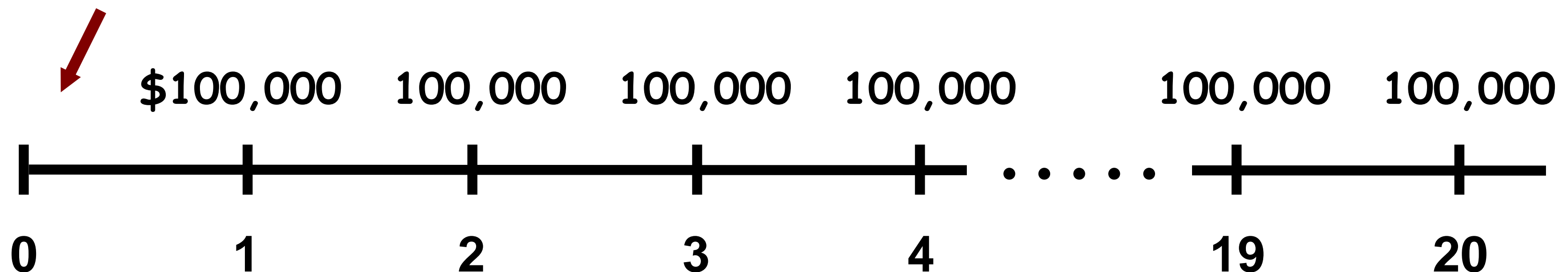
Deposit — Factor — Future Value

LO 6 Solve future value of ordinary and annuity due problems.

Present Value of an Ordinary Annuity

Present Value of an Ordinary Annuity

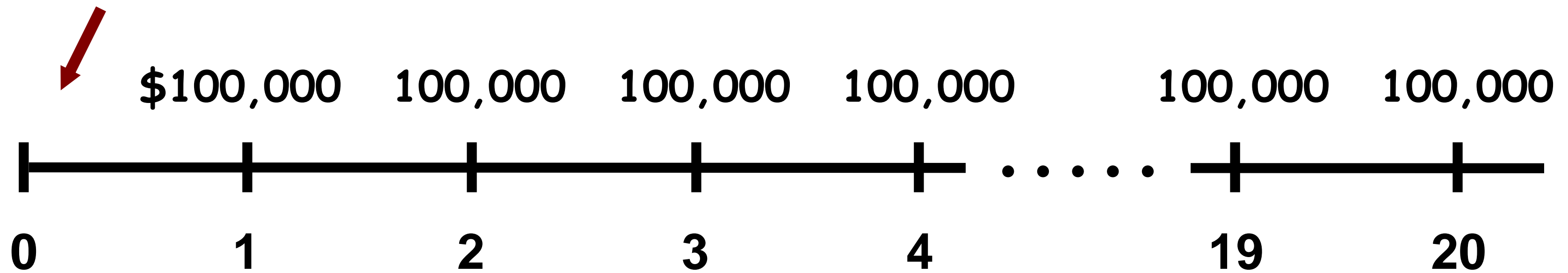
- Present value of a series of equal amounts to be withdrawn or received at equal intervals.
- Periodic rents occur at the end of the period.



LO 7 Solve present value of ordinary and annuity due problems.

Present Value of an Ordinary Annuity

Present Value



Jaime Yuen wins $2,000,000 in the state lottery. She will be paid $100,000 at the end of each year for the next 20 years. How much has she actually won? Assume an appropriate interest rate of 8%.

What table do we use?

Present Value of an Ordinary Annuity

Table 6-4

Number of Periods	Discount Rate 4%	6%	8%	10%	12%
1	0.96154	0.94340	0.92593	0.90900	0.89286
5	4.45183	4.21236	3.99271	3.79079	3.60478
10	8.11090	7.36009	6.71008	6.14457	5.65022
15	11.11839	9.71225	8.55948	7.60608	6.81086
20	13.59033	11.46992	9.81815	8.51356	7.46944

What factor do we use?

LO 7 Solve present value of ordinary and annuity due problems.

Present Value of an Ordinary Annuity

Table 6-4

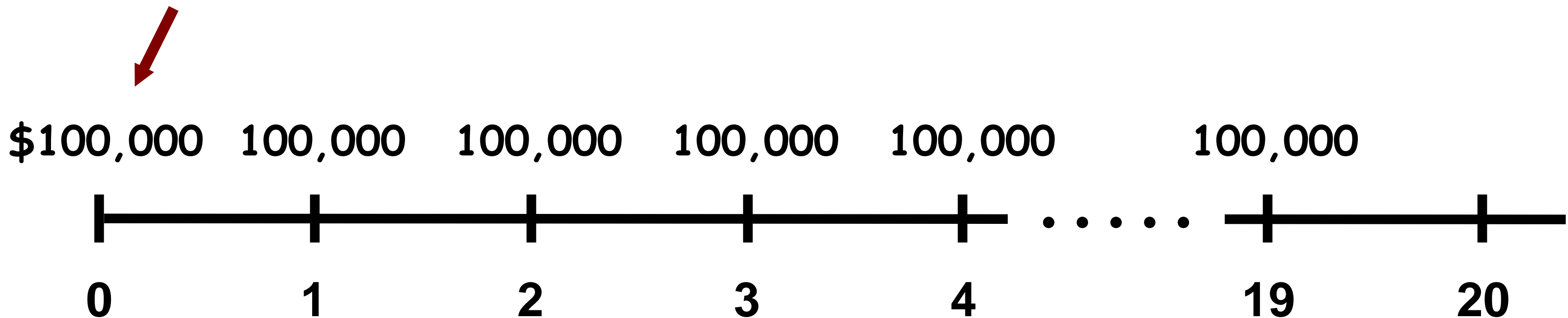
Number of Periods	4%	6%	8%	10%	12%
			Discount Rate		
1	0.96154	0.94340	0.92593	0.90900	0.89286
5	4.45183	4.21236	3.99271	3.79079	3.60478
10	8.11090	7.36009	6.71008	6.14457	5.65022
15	11.11839	9.71225	8.55948	7.60608	6.81086
20	13.59033	11.46992	9.81815	8.51356	7.46944

$100,000	×	9.81815	=	$981,815
Receipt		Factor		Present Value

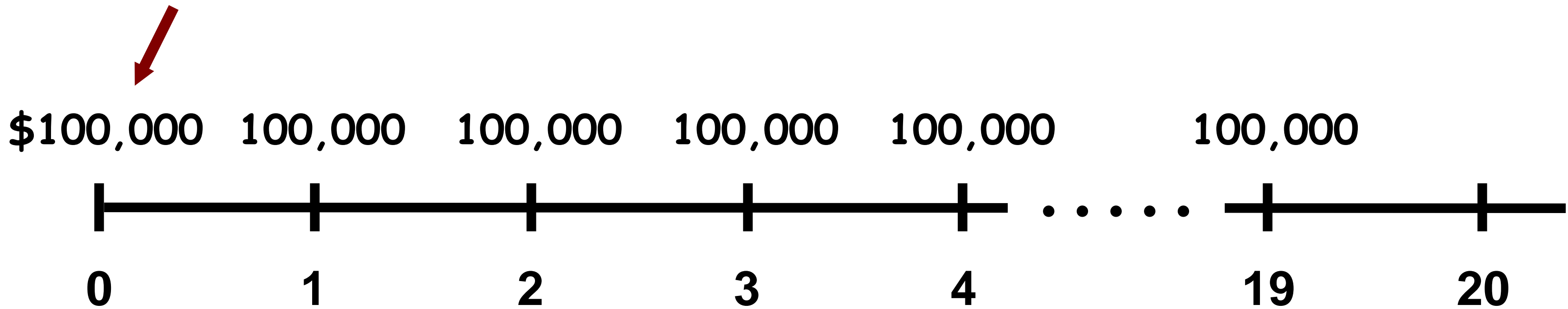
LO 7 Solve present value of ordinary and annuity due problems.

Present Value of an Annuity Due

- Present value of a series of equal amounts to be withdrawn or received at equal intervals.
- Periodic rents occur at the beginning of the period.



Present Value of an Annuity Due



Jaime Yuen wins $2,000,000 in the state lottery. She will be paid $100,000 at the beginning of each year for the next 20 years. How much has she actually won? Assume an appropriate interest rate of 8%.

What table do we use?

LO 7 Solve present value of ordinary and annuity due problems.

Present Value of an Annuity Due

Table 6-5

Number of Periods	Discount Rate 4%	6%	8%	10%	12%
1	1.00000	1.00000	1.00000	1.00000	1.00000
5	4.62990	4.46511	4.31213	4.16986	4.03735
10	8.43533	7.80169	7.24689	6.75902	6.32825
15	11.56312	10.29498	9.24424	8.36669	7.62817
20	14.13394	12.15812	10.60360	9.36492	8.36578

What factor do we use?

LO 7 Solve present value of ordinary and annuity due problems.

Present Value of an Annuity Due

Table 6-5

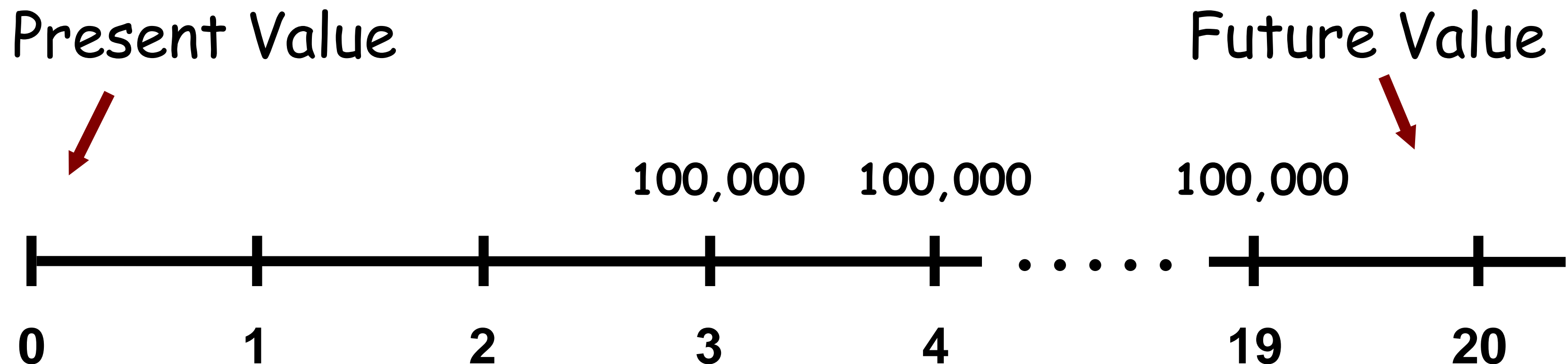
Number of Periods	Discount Rate 4%	6%	8%	10%	12%
1	1.00000	1.00000	1.00000	1.00000	1.00000
5	4.62990	4.46511	4.31213	4.16986	4.03735
10	8.43533	7.80169	7.24689	6.75902	6.32825
15	11.56312	10.29498	9.24424	8.36669	7.62817
20	14.13394	12.15812	10.60360	9.36492	8.36578

$100,000	x	10.60360	=	$1,060,360
Receipt		Factor		Present Value

LO 7 Solve present value of ordinary and annuity due problems.

Deferred Annuities

- Rents begin after a specified number of periods.
- **Future Value** - Calculation same as the future value of an annuity not deferred.
- **Present Value** - Must recognize the interest that accrues during the deferral period.



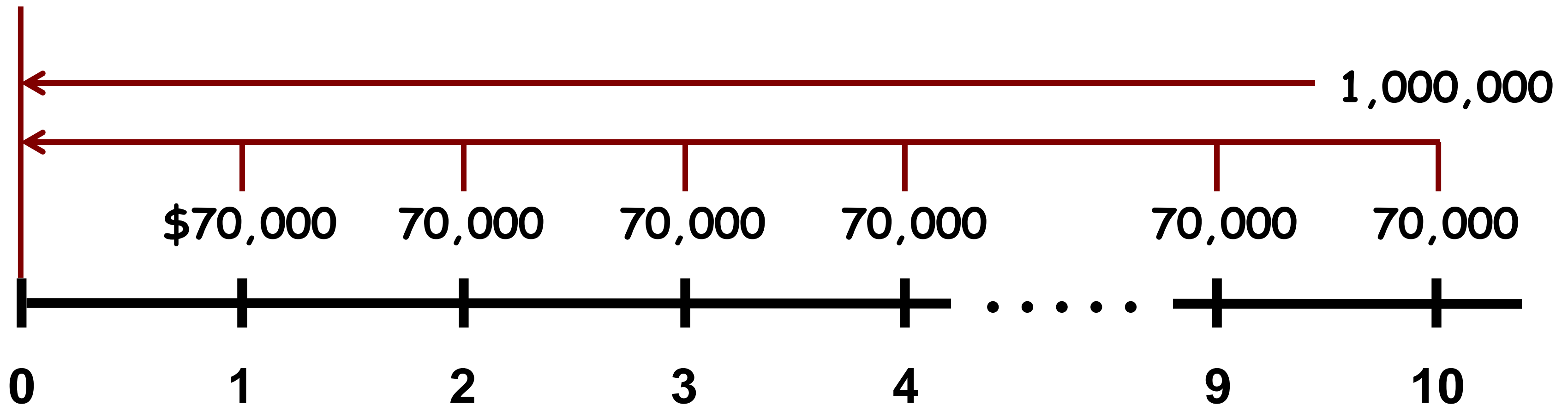
LO 8 Solve present value problems related to deferred annuities and bonds.

Valuation of Long-Term Bonds

Two Cash Flows:

- Periodic interest payments (annuity).
- Principal paid at maturity (single-sum).

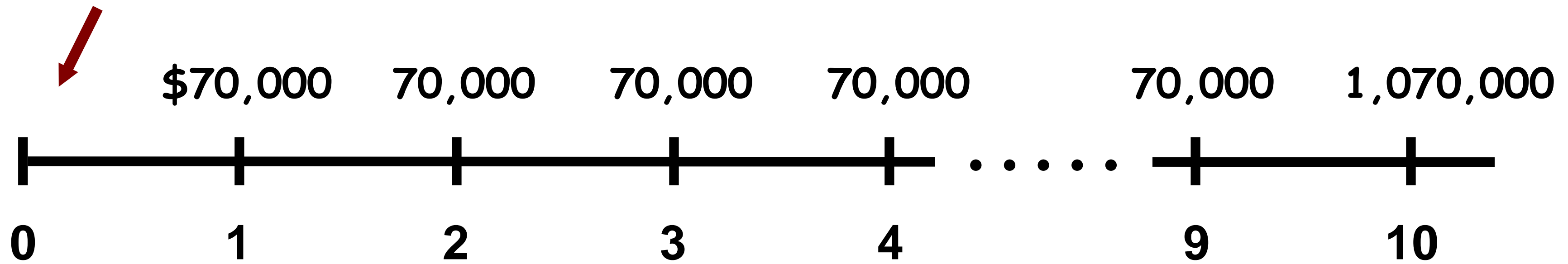
Bonds current market value is the combined present values of the both cash flows.



LO 8 Solve present value problems related to deferred annuities and bonds.

Valuation of Long-Term Bonds

Present Value



BE6-15 Arcadian Inc. issues $1,000,000 of 7% bonds due in 10 years with interest payable at year-end. The current market rate of interest for bonds is 8%. What amount will Arcadian receive when it issues the bonds?

LO 8 Solve present value problems related to deferred annuities and bonds.

Valuation of Long-Term Bonds

Table 6-4

PV of Interest

Number of Periods	Discount Rate 4%	6%	8%	10%	12%
1	0.96154	0.94340	0.92593	0.90900	0.89286
5	4.45183	4.21236	3.99271	3.79079	3.60478
10	8.11090	7.36009	6.71008	6.14457	5.65022
15	11.11839	9.71225	8.55948	7.60608	6.81086
20	13.59033	11.46992	9.81815	8.51356	7.46944

$70,000 × 6.71008 = $469,706

Interest Payment — Factor — Present Value

LO 8 Solve present value problems related to deferred annuities and bonds.

Valuation of Long-Term Bonds

Table 6-2

PV of Principal

Number of Periods	Discount Rate 4%	6%	8%	10%	12%
1	0.96154	0.94340	0.92593	0.90909	0.89286
5	0.82193	0.74726	0.68058	0.62092	0.56743
10	0.67556	0.55839	0.46319	0.38554	0.32197
15	0.55526	0.41727	0.31524	0.23939	0.18270
20	0.45639	0.31180	0.21455	0.14864	0.10367

$1,000,000	x	.46319	=	$463,190
Principal Payment		Factor		Present Value

LO 8 Solve present value problems related to deferred annuities and bonds.

Valuation of Long-Term Bonds

BE6-15 Arcadian Inc. issues $1,000,000 of 7% bonds due in 10 years with interest payable at year-end.

Present value of Interest	$469,706
Present value of Principal	463,190
Bond current market value	$932,896

Date	Account Title	Debit	Credit
	Cash	932,896	
	Discount on Bonds	67,104	
	Bonds payable		1,000,000

LO 8 Solve present value problems related to deferred annuities and bonds.

Present Value Measurement

Concepts Statement No. 7 introduces an *expected cash flow approach* that uses a range of cash flows and incorporates the probabilities of those cash flows.

Choosing an Appropriate Interest Rate

Three Components of Interest:

- Pure Rate
- Expected Inflation Rate
- Credit Risk Rate

Risk-free rate of return. FASB states a company should discount expected cash flows by the risk-free rate of return.

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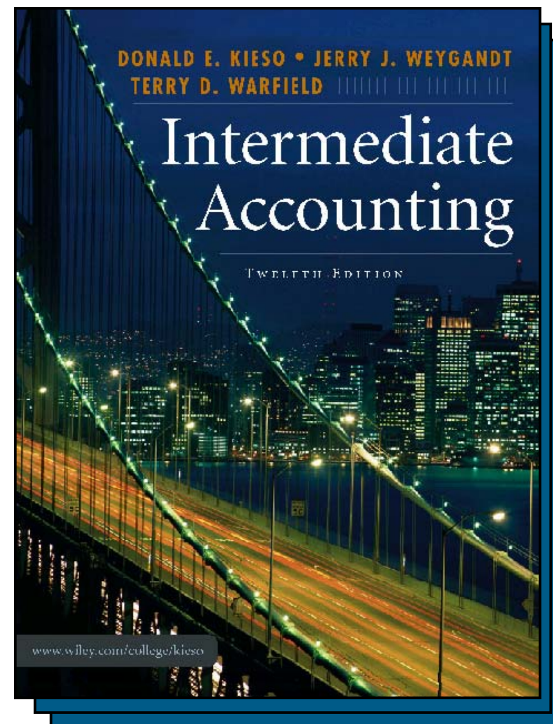
Cash and Receivables

Chapter 7

Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Identify items considered as cash.
2. Indicate how to report cash and related items.
3. Define receivables and identify the different types of receivables.
4. Explain accounting issues related to recognition of accounts receivable.
5. Explain accounting issues related to valuation of accounts receivable.
6. Explain accounting issues related to recognition of notes receivable.
7. Explain accounting issues related to valuation of notes receivable.
8. Explain accounting issues related to disposition of accounts and notes receivable.
9. Describe how to report and analyze receivables.

Cash and Receivables

Cash

- What is cash?
- Management and control of cash
- Reporting cash
- Summary of cash-related items

Receivables

- Recognition of accounts receivable
- Valuation of accounts receivable
- Recognition of notes receivable
- Valuation of notes receivable
- Disposition of accounts and notes receivable
- Presentation and analysis

What is Cash?

Cash

- Most liquid asset
- Standard medium of exchange
- Basis for measuring and accounting for all items
- Current asset
- Examples: coin, currency, available funds on deposit at the bank, money orders, certified checks, cashier's checks, personal checks, bank drafts and savings accounts.

LO 1 Identify items considered as cash.

Management and Control of Cash

Management faces two problems:

(1) to establish proper controls to prevent any unauthorized transactions, and

(2) to provide information necessary to the proper management of cash on hand and cash transactions.

Companies need effective internal control over cash.

Reporting Cash

Restricted Cash

Companies segregate restricted cash from "regular" cash for reporting purposes.

Examples, restricted for:

(1) plant expansion, (2) retirement of long-term debt, and (3) compensating balances.

Illustration 7-1

International Thoroughbred Breeders

Restricted cash and investments (See Note)	$3,730,000

Note: Restricted Cash. At year-end, the Company had approximately $3,730,000, which was classified as restricted cash and investments. These funds are primarily cash received from horsemen for nomination and entry fees to be applied to upcoming racing meets, purse winnings held in trust for horsemen, and amounts held for unclaimed ticketholder winnings.

Reporting Cash

Bank Overdrafts

When a company writes a check for more than the amount in its cash account.

- Generally reported as a current liability.
- Offset against cash account only when available cash is present in another account in the same bank on which the overdraft occurred.

Reporting Cash

Cash Equivalents

Short-term, highly liquid investments that are both

(a) readily convertible to cash, and

(b) so near their maturity that they present insignificant risk of changes in interest rates.

Examples: Treasury bills, Commercial paper, and Money market funds.

Receivables

Claims held against customers and others for money, goods, or services.

Oral promises of the purchaser to pay for goods and services sold.

Accounts Receivable

Written promises to pay a sum of money on a specified future date.

Notes Receivable

LO 3 Define receivables and identify the different types of receivables.

Receivables

Nontrade Receivables

Examples:

1. Advances to officers and employees.
2. Advances to subsidiaries.
3. Deposits to cover potential damages or losses.
4. Deposits as a guarantee of performance or payment.
5. Dividends and interest receivable.

LO 3 Define receivables and identify the different types of receivables.

Recognition of Accounts Receivables

Trade Discounts

- Reductions from the list price
- Not recognized in the accounting records
- Customers are billed net of discounts

LO 4 Explain accounting issues related to recognition of accounts receivable.

Recognition of Accounts Receivables

Cash Discounts

- Inducements for prompt payment
- Gross Method vs. Net Method

Invoice

SOLD

SHIP

Payment terms are 2/10, n/30

LO 4 Explain accounting issues related to recognition of accounts receivable.

Recognition of Accounts Receivables

Example: On June 3, Benedict Corp. sold to Chester Inc., merchandise having a sale price of $5,000 with terms of 2/10,n/60, f.o.b. shipping point. On June 12, Benedict received a check for the balance due from Chester. Prepare required journal entries assuming Benedict records the sale at **gross**.

Gross Method

June 3	Accounts receivable	5,000	
	Sales		5,000
June 12	Cash ($5,000 x 98%)	4,900	
	Sales discounts	100	
	Accounts receivable		5,000

LO 4 Explain accounting issues related to recognition of accounts receivable.

Recognition of Accounts Receivables

Example: On June 3, Benedict Corp. sold to Chester Inc., merchandise having a sale price of $5,000 with terms of 2/10,n/60, f.o.b. shipping point. On June 12, Benedict received a check for the balance due from Chester. Prepare required journal entries assuming Benedict records the sale at **net**.

Net Method

Date	Account	Debit	Credit
June 3	Accounts receivable	4,900	
	Sales		4,900
June 12	Cash	4,900	
	Accounts receivable		4,900

LO 4 Explain accounting issues related to recognition of accounts receivable.

Recognition of Accounts Receivables

Example: On June 3, Benedict Corp. sold to Chester Inc., merchandise having a sale price of $5,000 with terms of 2/10,n/60, f.o.b. shipping point. On **June 29**, Benedict received a check for the balance due from Chester. Prepare required journal entries assuming Benedict records the sale at **net**.

Net Method

June 3	Accounts receivable	4,900	
	Sales		4,900
June 29	Cash	5,000	
	Accounts receivable		4,900
	Sales discounts forfeited		100

LO 4 Explain accounting issues related to recognition of accounts receivable.

Recognition of Accounts Receivables

Nonrecognition of Interest Element

A company should measure receivables in terms of their present value.

In practice, companies ignore interest revenue related to accounts receivable because the amount of the discount is **not usually material**.

Accounting for Accounts Receivable

How are these accounts presented on the Balance Sheet?

	Accounts Receivable		Allowance for Doubtful Accounts	
Beg.	500		25	Beg.
End.	500		25	End.

LO 4 Explain accounting issues related to recognition of accounts receivable.

Assets

Current Assets:		
Cash		$ 346
Accounts receivable	500	
Less allowance for doubtful accounts	25	475
Inventory		812
Prepaids		40
Total current assets		1,673
Fixed Assets:		
Office equipment		5,679
Furniture & fixtures		6,600
Less: Accumulated depreciation		(3,735)
Total fixed assets		8,544
Total Assets		$10,217

LO 4 Explain accounting issues related to recognition of accounts receivable.

Assets

Current Assets:	
Cash	$ 346
Accounts receivable, net of $25 allowance for doubtful accounts	475
Inventory	812
Prepaids	40
Total current assets	1,673
Fixed Assets:	
Office equipment	5,679
Furniture & fixtures	6,600
Less: Accumulated depreciation	(3,735)
Total fixed assets	8,544
Total Assets	$10,217

LO 4 Explain accounting issues related to recognition of accounts receivable.

Accounting for Accounts Receivable

Journal entry for credit sale of $100?

Accounts receivable	100	
Sales		100

Accounts Receivable

	Debit	Credit
Beg.	500	
End.	500	

Allowance for Doubtful Accounts

Debit	Credit	
	25	Beg.
	25	End.

LO 4 Explain accounting issues related to recognition of accounts receivable.

Accounting for Accounts Receivable

Journal entry for credit sale of $100?

	Debit	Credit
Accounts receivable	100	
Sales		100

Accounts Receivable

	Debit	Credit
Beg.	500	
Sale	100	
End.	600	

Allowance for Doubtful Accounts

Debit	Credit	
	25	Beg.
	25	End.

LO 4 Explain accounting issues related to recognition of accounts receivable.

Accounting for Accounts Receivable

Collected of $333 on account?

Cash	333	
Accounts receivable		333

Accounts Receivable

Beg.	500	
Sale	100	
End.	600	

Allowance for Doubtful Accounts

	25	Beg.
	25	End.

LO 4 Explain accounting issues related to recognition of accounts receivable.

Accounting for Accounts Receivable

Collected of $333 on account?

Cash	333	
Accounts receivable		333

Accounts Receivable

Beg.	500		
Sale	100	333	Coll.
End.	267		

Allowance for Doubtful Accounts

		25	Beg.
		25	End.

LO 4 Explain accounting issues related to recognition of accounts receivable.

Accounting for Accounts Receivable

Adjustment of $15 for estimated Bad-Debts?

	Dr.	Cr.
Bad debt expense	15	
Allowance for Doubtful Accounts		15

Accounts Receivable

	Debit	Credit	
Beg.	500		
Sale	100	333	Coll.
End.	267		

Allowance for Doubtful Accounts

Debit	Credit	
	25	Beg.
	25	End.

LO 4 Explain accounting issues related to recognition of accounts receivable.

Accounting for Accounts Receivable

Adjustment of $15 for estimated Bad-Debts?

Bad debt expense	15	
Allowance for Doubtful Accounts		15

Accounts Receivable

	Debit	Credit	
Beg.	500		
Sale	100	333	Coll.
End.	267		

Allowance for Doubtful Accounts

	Debit	Credit	
		25	Beg.
		15	Est.
		40	End.

LO 4 Explain accounting issues related to recognition of accounts receivable.

Accounting for Accounts Receivable

Write-off of uncollectible accounts for $10?

Allowance for Doubtful accounts	10	
Accounts receivable		10

Accounts Receivable

Beg.	500		
Sale	100	333	Coll.
End.	267		

Allowance for Doubtful Accounts

		25	Beg.
		15	Est.
		40	End.

LO 4 Explain accounting issues related to recognition of accounts receivable.

Accounting for Accounts Receivable

Write-off of uncollectible accounts for $10?

	Debit	Credit
Allowance for Doubtful accounts	10	
Accounts receivable		10

Accounts Receivable

	Debit	Credit	
Beg.	500		
Sale	100	333	Coll.
		10	W/O
End.	257		

Allowance for Doubtful Accounts

	Debit	Credit	
		25	Beg.
		15	Est.
W/O	10		
		30	End.

LO 4 Explain accounting issues related to recognition of accounts receivable.

Assets

Current Assets:	
Cash	$ 346
Accounts receivable, net of $30 allowance for doubtful accounts	227
Inventory	812
Prepaids	40
Total current assets	1,673
Fixed Assets:	
Office equipment	5,679
Furniture & fixtures	6,600
Less: Accumulated depreciation	(3,735)
Total fixed assets	8,544
Total Assets	$10,217

LO 4 Explain accounting issues related to recognition of accounts receivable.

Valuation of Accounts Receivable

Reporting Receivables

- Classification
- Valuation (net realizable value)

Uncollectible Accounts Receivable

- Sales on account raise the possibility of accounts not being collected

Uncollectible Accounts Receivable

Methods of Accounting for Uncollectible Accounts

Direct Write-Off

Theoretically undesirable:

- no matching
- receivable not stated at net realizable value

Allowance Method

Losses are Estimated:

- Percentage-of-sales
- Percentage-of-receivables

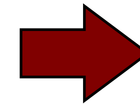
LO 5 Explain accounting issues related to valuation of accounts receivable.

Uncollectible Accounts Receivable

Percentage of Sales

Matching

Sales --- Bad Debt Expense

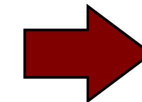


Income Statement Approach

Percentage of Receivables

Net Realizable Value

Receivables - Allowance for Bad Debt



Balance Sheet Approach

LO 5 Explain accounting issues related to valuation of accounts receivable.

Uncollectible Accounts Receivable

Example Data

Credit sales	$500,000
Estimated % of credit sales not collected	1.25%
Accounts receivable balance	$72,500
Estimated % of A/R not collected	8%

Allowance for Doubtful Accounts:

Case I	$150 (credit balance)
Case 2	$150 (debit balance)

Uncollectible Accounts Receivable

Percentage of Sales Method

Charge sales		$500,000
Estimated percentage	x	1.25%
Estimated expense	$	6,250

==

What should the ending balance be for the allowance account? -- Case 1 and Case 2

LO 5 Explain accounting issues related to valuation of accounts receivable.

Uncollectible Accounts Receivable

Percentage of Sales

	Case 1	Case 2
Actual balance (credit)	(150)	150
Adjustment	(6,250)	(6,250)
Ending balance	(6,400)	(6,100)

Journal entry:

Bad debt expense	6,250	
Allowance for doubtful accounts		6,250

LO 5 Explain accounting issues related to valuation of accounts receivable.

Uncollectible Accounts Receivable

Percentage of Receivables

Accounts receivable	$ 72,500
Estimated percentage	x 8%
Desired balance	$ 5,800

==

What should the ending balance be for the allowance account? -- Case 1 and Case 2

LO 5 Explain accounting issues related to valuation of accounts receivable.

Uncollectible Accounts Receivable

Percentage of Receivables

	Case 1	Case 2
Actual balance (credit)	(150)	150
Desired balance	(5,800)	(5,800)
Adjustment	(5,650)	(5,950)

Journal entry - Case 1:

Bad debt expense	5,650	
Allowance for doubtful accounts		5,650

LO 5 Explain accounting issues related to valuation of accounts receivable.

Uncollectible Accounts Receivable

Percentage of Receivables

	Case 1	Case 2
Actual balance (credit)	(150)	150
Desired balance	(5,800)	(5,800)
Adjustment	(5,650)	(5,950)

Journal entry - Case 2:

Bad debt expense	5,950	
Allowance for doubtful accounts		5,950

LO 5 Explain accounting issues related to valuation of accounts receivable.

Uncollectible Accounts Receivable

Summary

Percentage of Sales approach:

- Bad debt expense estimate is related to a nominal account (Sales), any balance in the allowance account is ignored.
- Therefore, the method achieves a proper matching of cost and revenues.

Percentage of Receivables approach:

- Results in a more accurate valuation of receivables on the balance sheet.
- Method may also be applied using an aging schedule.

Recognition of Notes Receivable

Notes Receivable

Supported by a formal promissory note.

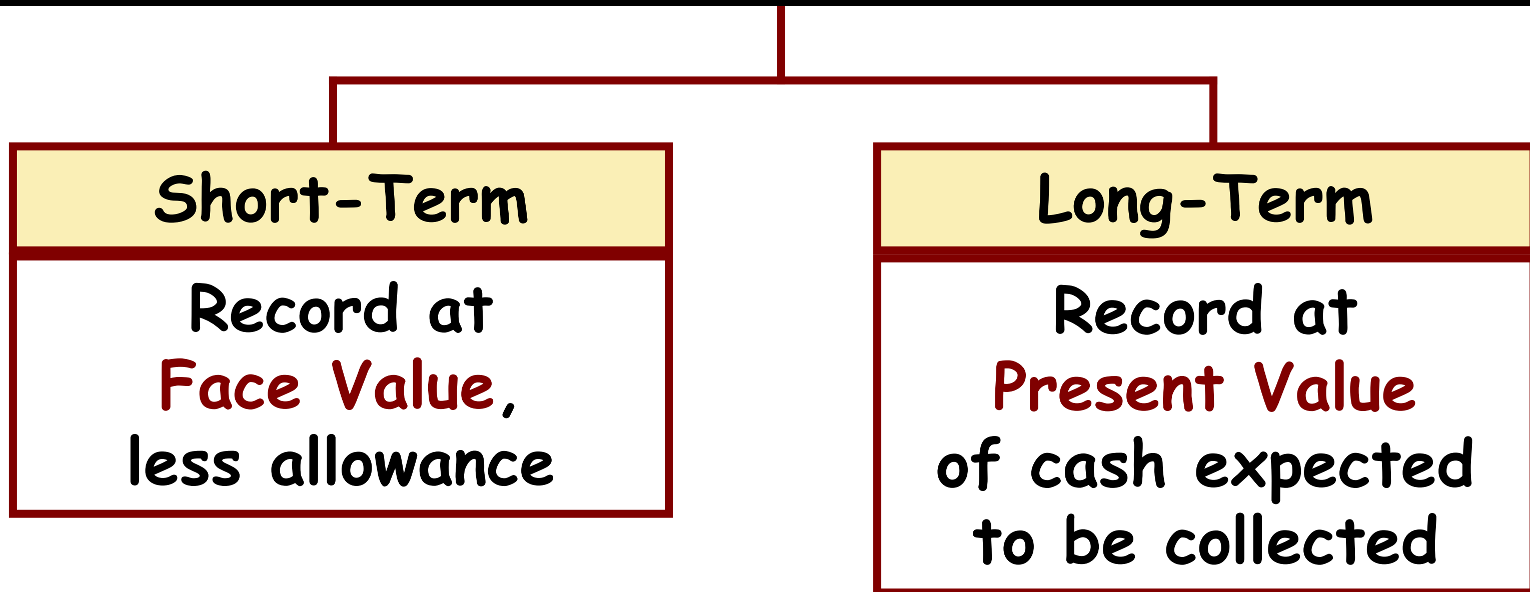
- A negotiable instrument
- Maker signs in favor of a Payee
- Interest-bearing (has a stated rate of interest) OR
- Noninterest-bearing (interest included in face amount)

Recognition of Notes Receivable

Generally originate from:

- Customers who need to extend the payment period of an outstanding receivable
- High-risk or new customers
- Loans to employees and subsidiaries
- Sales of property, plant, and equipment
- Lending transactions (the majority of notes)

Recognition of Notes Receivable

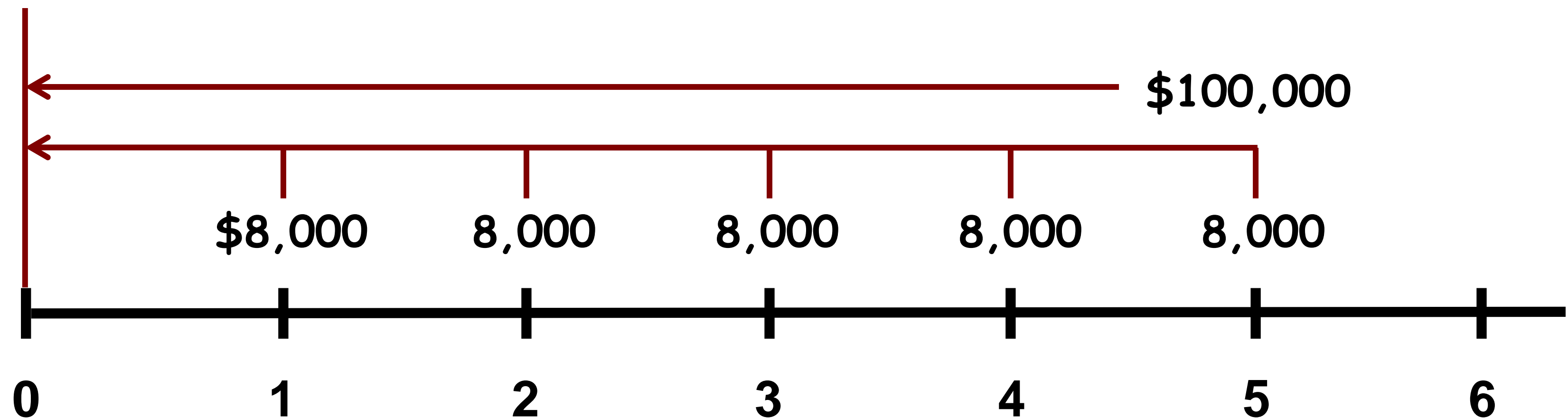


Interest Rates		Note Issued at
Stated rate = Market rate		Face Value
Stated rate > Market rate		Premium
Stated rate < Market rate		Discount

LO 6 Explain accounting issues related to recognition of notes receivable.

Note Issued at Face Value

Exercise Balance Bar Co. lends Bio Foods $100,000 in exchange for a $100,000, 5-year note bearing interest at 8 percent annually. The market rate of interest for a note of similar risk is also 8 percent. How does Balance Bar record the receipt of the note?



LO 6 Explain accounting issues related to recognition of notes receivable.

Note Issued at Face Value

Table 6-4

PV of Interest

Number of Periods	4%	6%	8%	10%	12%
			Discount Rate		
1	0.96154	0.94340	0.92593	0.90900	0.89286
5	4.45183	4.21236	3.99271	3.79079	3.60478
10	8.11090	7.36009	6.71008	6.14457	5.65022
15	11.11839	9.71225	8.55948	7.60608	6.81086
20	13.59033	11.46992	9.81815	8.51356	7.46944

$8,000	x	3.99271	=	$31,942
Interest		Factor		Present Value

LO 6 Explain accounting issues related to recognition of notes receivable.

Note Issued at Face Value

Table 6-2

PV of Principal

Number of Periods	Discount Rate 4%	6%	8%	10%	12%
1	0.96154	0.94340	0.92593	0.90909	0.89286
5	0.82193	0.74726	0.68058	0.62092	0.56743
10	0.67556	0.55839	0.46319	0.38554	0.32197
15	0.55526	0.41727	0.31524	0.23939	0.18270
20	0.45639	0.31180	0.21455	0.14864	0.10367

$100,000	x	.68058	=	$68,058
Principal		Factor		Present Value

LO 6 Explain accounting issues related to recognition of notes receivable.

Note Issued at Face Value

Summary

Present value of Interest	$ 31,942
Present value of Principal	68,058
Bond current market value	$100,000

Date	Account Title	Debit	Credit
Jan. yr. 1	Notes receivable	100,000	
	Cash		100,000
Dec. yr. 1	Cash	8,000	
	Interest revenue		8,000
	($100,000 x 8%)		

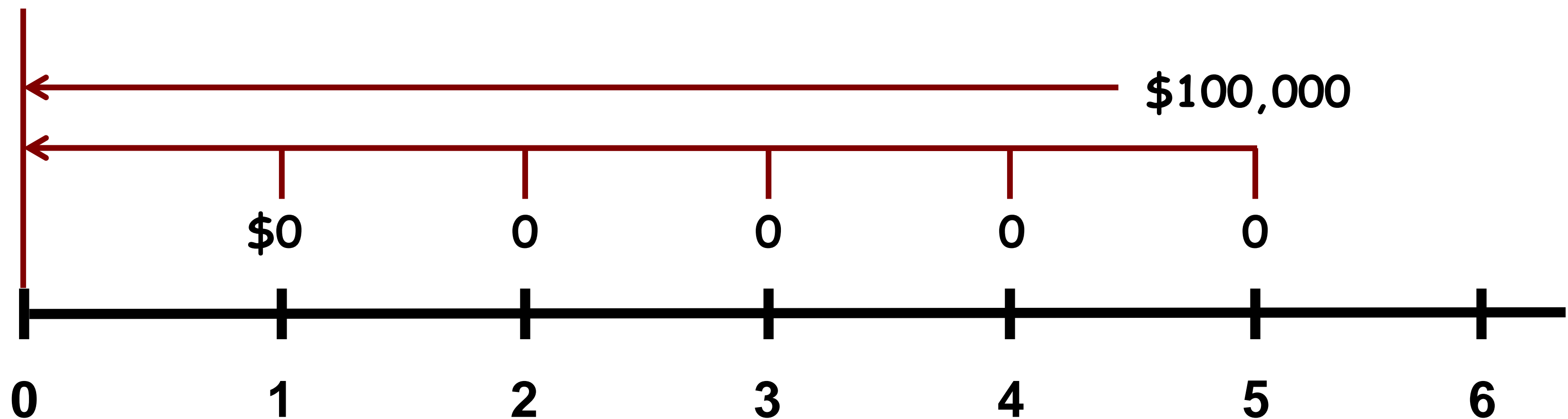
LO 6 Explain accounting issues related to recognition of notes receivable.

Zero-Interest-Bearing Note

Exercise Balance Bar Co. receives a 5-year, $100,000 zero-interest-bearing note. The market rate of interest for a note of similar risk is 6 percent. How does Balance Bar record the receipt of the note?

Present value of Principle:

$100,000 (PVF 5, 6%) = $100,000 x .74726 = **$74,726**



LO 6 Explain accounting issues related to recognition of notes receivable.

Zero-Interest-Bearing Note

Amortization Schedule
Non-Interest-Bearing Note

	Cash Received	6% Interest Revenue	Discount Amortized	Carrying Amount of Note
Date of issue				$ 74,726
End of yr. 1	-	$ 4,484	$ 4,484	79,210
End of yr. 2	-	4,753	4,753	83,962
End of yr. 3	-	5,038	5,038	89,000
End of yr. 4	-	5,340	5,340	94,340
End of yr. 5	-	5,660	5,660	100,000
	-	25,274	25,274	

LO 6 Explain accounting issues related to recognition of notes receivable.

Zero-Interest-Bearing Note

Journal Entries for Non-Interest-Bearing note

Present value of Principal $74,726

Date	Account Title	Debit	Credit
Jan. yr. 1	Notes receivable	100,000	
	Discount on notes receivable		25,274
	Cash		74,726
Dec. yr. 1	Disount on notes receivable	4,484	
	Interest revenue		4,484
	($74,726 x 6%)		

LO 6 Explain accounting issues related to recognition of notes receivable.

Interest-Bearing Note

Exercise Balance Bar Co. made a loan to Bio Foods and received in exchange a 5-year, $100,000 note bearing interest 8 percent. The market rate of interest for a note of similar risk is 10 percent. How does Balance Bar record the receipt of the note?

Present value of Principle:	
$100,000 (PVF5, 10%) = $100,000 x .62092 =	$ 62,092
Present value of Interest:	
$8,000 (PVF5, 10%) = $8,000 x 3.79079 =	30,326
Present value of note	**$ 92,418**

LO 6 Explain accounting issues related to recognition of notes receivable.

Interest-Bearing Note

Amortization Schedule
Interest-Bearing Note

	Cash Received	10% Interest Revenue	Discount Amortized	Carrying Amount of Note
Date of issue				$ 92,418
End of yr. 1	8,000	$ 9,242	$ 1,242	93,660
End of yr. 2	8,000	9,366	1,366	95,026
End of yr. 3	8,000	9,503	1,503	96,529
End of yr. 4	8,000	9,653	1,653	98,182
End of yr. 5	8,000	9,818	1,818	100,000
	40,000	47,582	7,582	

LO 6 Explain accounting issues related to recognition of notes receivable.

Interest-Bearing Note

Journal Entries for Interest-Bearing Note

Date	Account Title	Debit	Credit
Jan. yr. 1	Notes receivable	100,000	
	Discount on notes receivable		7,582
	Cash		92,418
Dec. yr. 1	Cash	8,000	
	Disount on notes receivable	1,242	
	Interest revenue		9,242
	($92,418 x 10%)		

Valuation of Notes Receivable

- Short-Term reported at Net Realizable Value (same as accounting for accounts receivable).
- Long-Term note is impaired when collecting all amounts due (both principal and interest) will likely not occur. Accounting for impairments discussed in Appendix 14A.

Disposition of Accounts and Notes Receivable

Owner may transfer accounts or notes receivables to another company for cash.

Reasons:

- Competition.
- Sell receivables because money is tight.
- Billing / collection are time-consuming and costly.

Transfer accomplished by:

1. Secured borrowing
2. Sale of receivables

LO 8 Explain accounting issues related to disposition of accounts and notes receivable.

Secured Borrowing - Exercise

E7-13 On April 1, 2007, Rasheed Company assigns $400,000 of its accounts receivable to the Third National Bank as collateral for a $200,000 loan due July 1, 2007. The assignment agreement calls for Rasheed Company to continue to collect the receivables. Third National Bank assesses a finance charge of 2% of the accounts receivable, and interest on the loan is 10% (a realistic rate of interest for a note of this type).

Instructions

(a) Prepare the April 1, 2007, journal entry for Rasheed Company.

(b) Prepare the journal entry for Rasheed's collection of $350,000 of the accounts receivable during the period from April 1, 2007, through June 30, 2007.

(c) On July 1, 2007, Rasheed paid Third National all that was due from the loan it secured on April 1, 2004.

LO 8 Explain accounting issues related to disposition of accounts and notes receivable.

Secured Borrowing - Exercise

Exercise 7-13 continued

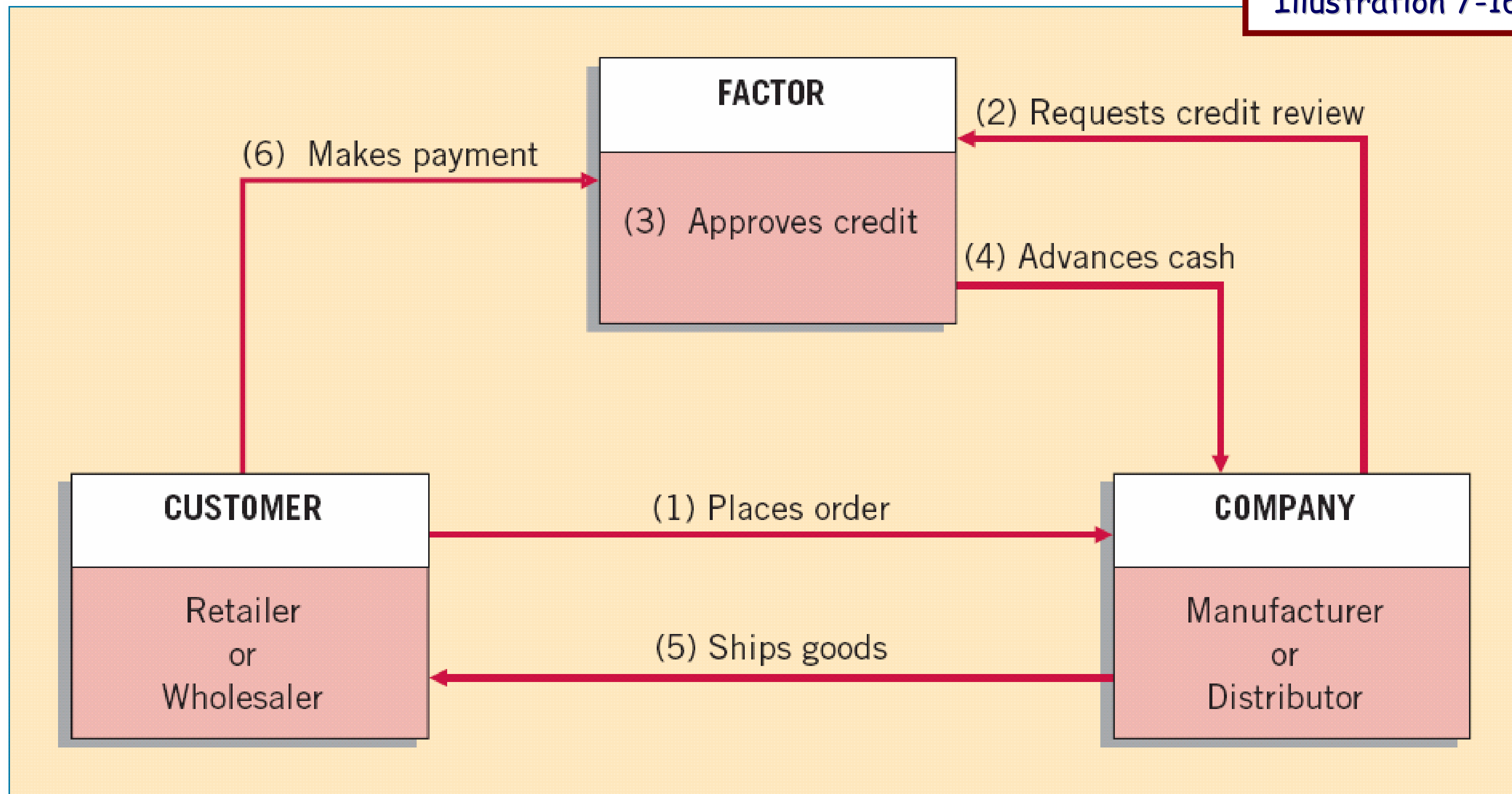
Date	Account Title	Debit	Credit
(a)	Cash	192,000	
	Finance Charge	8,000	
	Notes Payable		200,000
	($400,000 x 2% = $8,000)		
(b)	Cash	350,000	
	Accounts Receivable		350,000
(c)	Notes Payable	200,000	
	Interest Expense	5,000	
	Cash		205,000
	(10% x $200,000 x 3/12 = $5,000)		

LO 8 Explain accounting issues related to disposition of accounts and notes receivable.

Sales of Receivables

Factors are finance companies or banks that buy receivables from businesses for a fee.

Illustration 7-16



LO 8 Explain accounting issues related to disposition of accounts and notes receivable.

Sales of Receivables

Sale Without Recourse

- Purchaser assumes risk of collection
- Transfer is outright sale of receivable
- Seller records loss on sale
- Seller use Due from Factor (receivable) account to cover discounts, returns, and allowances

Sale With Recourse

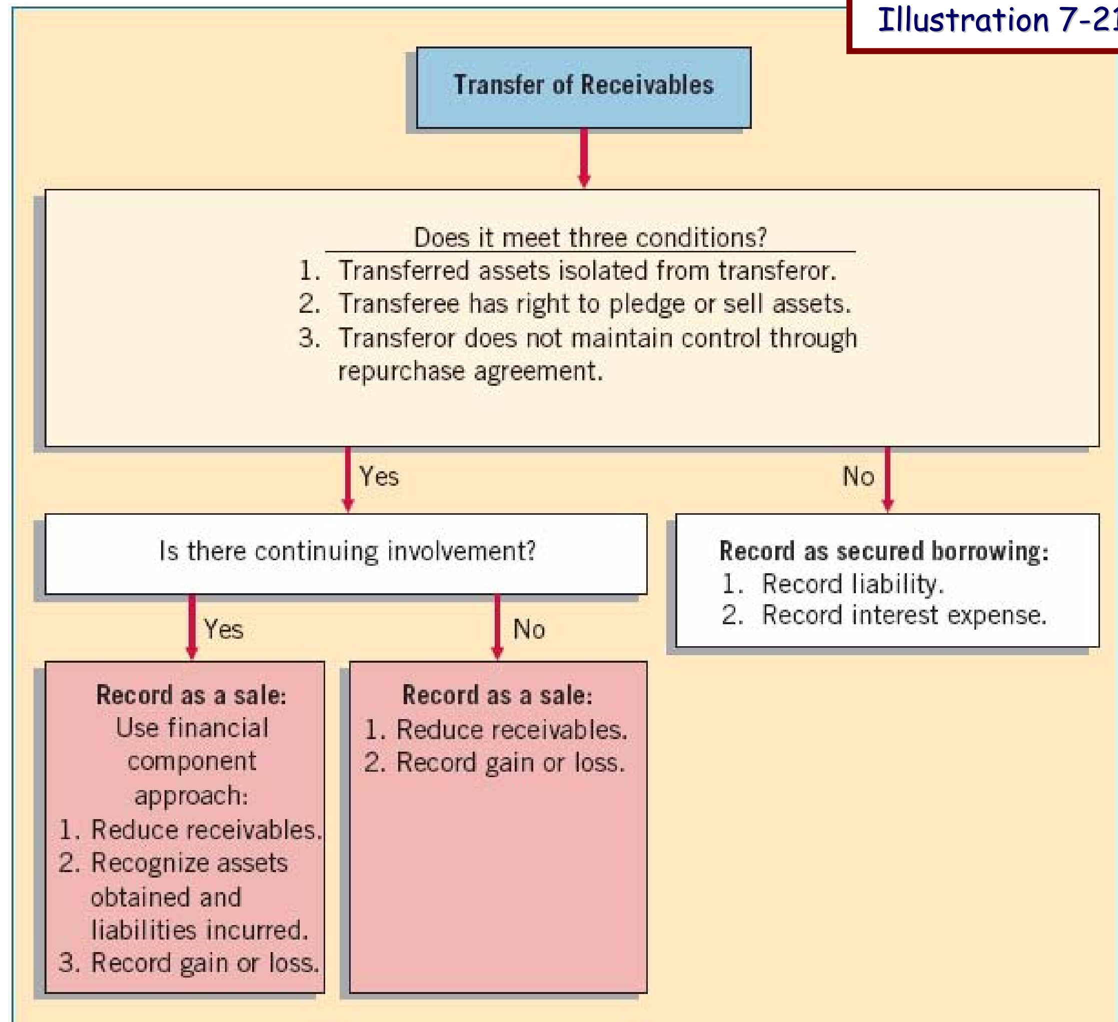
- Seller guarantees payment to purchaser
- Financial components approach used to record transfer

LO 8 Explain accounting issues related to disposition of accounts and notes receivable.

Secured Borrowing versus Sale

The FASB concluded that a sale occurs only if the seller surrenders control of the receivables to the buyer. Three conditions must be met:

Illustration 7-21



LO 8 Explain accounting issues related to disposition of accounts and notes receivable.

Presentation and Analysis

General rule in classifying receivables are:

1. Segregate the different types of receivables that a company possesses, if material.
2. Appropriately offset the valuation accounts against the proper receivable accounts.
3. Determine that receivables classified in the current assets section will be converted into cash within the year or the operating cycle, whichever is longer.
4. Disclose any loss contingencies that exist on the receivables.
5. Disclose any receivables designated or pledged as collateral.
6. Disclose all significant concentrations of credit risk arising from receivables.

Presentation and Analysis

Analysis of Receivables

Illustration 7-23

$$\frac{\text{Net Sales}}{\text{Average Trade Receivables (net)}} = \text{Accounts Receivable Turnover}$$

$$\frac{\$9{,}745}{(\$580 + \$380)/2} = \text{20.3 times, or every 18 days } (365 \div 20.3)$$

This Ratio used to:

- *Assess the liquidity of the receivables.*
- *Measure the number of times, on average, a company collects receivables during the period.*

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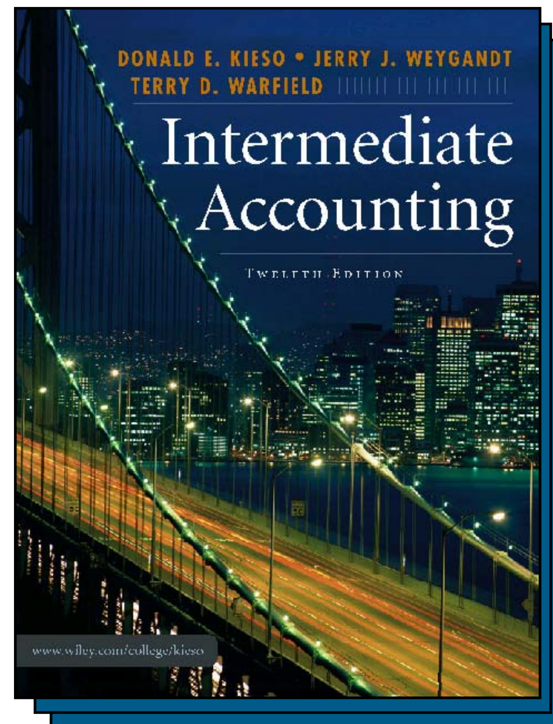
Valuation of Inventories: A Cost-Basis Approach

Chapter 8

Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Identify major classifications of inventory.
2. Distinguish between perpetual and periodic inventory systems.
3. Identify the effects of inventory errors on the financial statements.
4. Understand the items to include as inventory cost.
5. Describe and compare the cost flow assumptions used to account for inventories.
6. Explain the significance and use of a LIFO reserve.
7. Understand the effect of LIFO liquidations.
8. Explain the dollar-value LIFO method.
9. Identify the major advantages and disadvantages of LIFO.
10. Understand why companies select given inventory methods.

Valuation of Inventories: Cost-basis Approach

Inventory Classification and Control

- Classification
- Control
- Basic inventory valuation issues

Physical Goods Included in Inventory

- Goods in transit
- Consigned goods
- Special sales agreements
- Inventory errors

Costs Included in Inventory

- Product costs
- Period costs
- Purchase discounts

Cost Flow Assumptions

- Specific identification
- Average cost
- FIFO
- LIFO

LIFO: Special Issues

- LIFO reserve
- LIFO liquidation
- Dollar-value LIFO
- Comparison of LIFO approaches
- Advantages of LIFO
- Disadvantages of LIFO

Basis for Selection

- Summary of inventory valuation methods

Inventory Classification and Systems

Classification

Inventories are:

- items held for sale, or
- goods to be used in the production of goods to be sold.

Businesses with Inventory:

Merchandiser or **Manufacturer**

LO 1 Identify major classifications of inventory.

Inventory Classification and Systems

Type of Business

Merchandiser

- One inventory account
- Purchase goods ready for sale

Balance Sheet (in thousands)	
Current assets	
Cash	$ 285,000
Marketable securities	530,000
Accounts receivable	149,000
Merchandise inventory	777,000
Prepaids	33,000
Total current assets	1,774,000
Investments:	
Invesment in ABC bonds	321,657
Investment in UC Inc.	253,980
Notes receivable	150,000
Land held for speculation	550,000
Sinking fund	225,000
Pension fund	653,798

LO 1 Identify major classifications of inventory.

Inventory Classification and Systems

Type of Business

Manufacturer

Three accounts

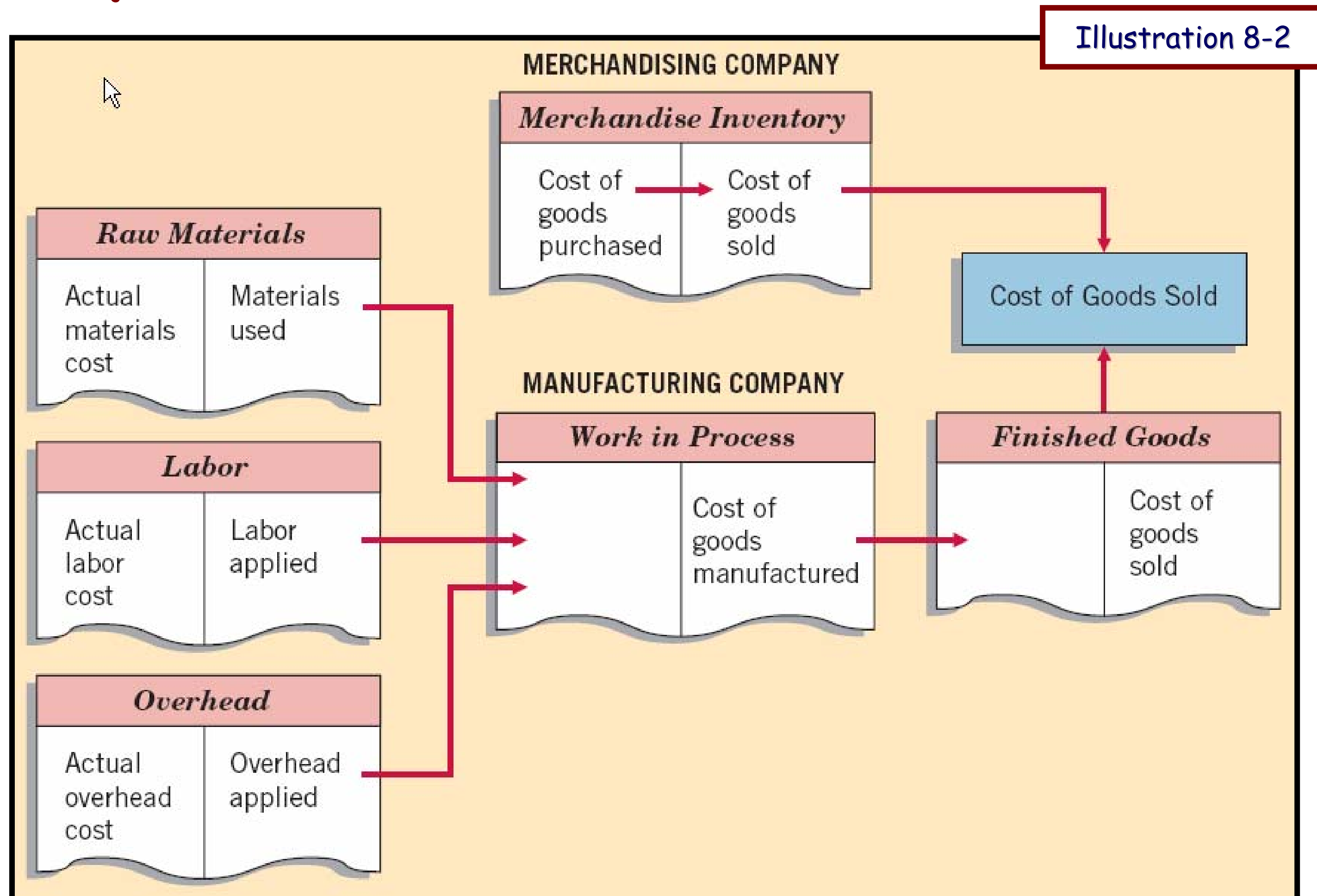
- Raw materials
- Work in process
- Finished goods

Balance Sheet (in thousands)	
Current assets	
Cash	$285,000
Marketable securities	530,000
Accounts receivable	149,000
Inventory	
Raw materials	210,000
Work in process	417,000
Finished goods	150,000
Total inventory	777,000
Prepaids	33,000
Total current assets	1,774,000
Investments:	
Invesment in ABC bonds	321,657

LO 1 Identify major classifications of inventory.

Inventory Classification and Systems

Flow of Costs



LO 1 Identify major classifications of inventory.

Inventory Classification and Systems

Control

Two systems for maintaining inventory records:

- Perpetual system
- Periodic system

LO 2 Distinguish between perpetual and periodic inventory systems.

Inventory Classification and Systems

Perpetual System

Features:

1. Purchases of merchandise are debited to Inventory.
2. Freight-in, purchase returns and allowances, and purchase discounts are recorded in Inventory.
3. Cost of goods sold is debited and Inventory is credited for each sale.
4. Physical count done to verify Inventory balance.

The perpetual inventory system provides a continuous record of Inventory and Cost of Goods Sold.

Inventory Classification and Systems

Periodic System

Features:

1. Purchases of merchandise are debited to Purchases.
2. Ending Inventory determined by physical count.
3. Calculation of Cost of Goods Sold:

Beginning inventory	$ 100,000
Purchases, net	800,000
Goods available for sale	900,000
Ending inventory	125,000
Cost of goods sold	$ 775,000

LO 2 Distinguish between perpetual and periodic inventory systems.

Inventory Classification and Systems

Perpetual System vs. Periodic System

1. Beginning inventory (100 units at $7 = 700)

2. Purchase 900 units at $7:

Perpetual System			Periodic System		
Inventory	6,300		Purchases	6,300	
Accounts payable		6,300	Accounts payable		6,300

3. Sale of 600 untis at $14:

Perpetual System			Periodic System		
Accounts receivable	8,400		Accounts receivable	8,400	
Sales		8,400	Sales		8,400
Cost of goods sold	4,200				
Inventory		4,200			

4. Adjusting entries (ending inventory = 400 units @ $7 = $2,800)

Perpetual System			Periodic System		
No Entry Necessary			Inventory	2,100	
			Cost of goods sold	4,200	
			Purchases		6,300

LO 2 Distinguish between perpetual and periodic inventory systems.

Basic Issues in Inventory Valuation

Valuation of Inventories

Requires the following:

- The **physical goods** (goods on hand, goods in transit, consigned goods, special sales agreements).
- The **costs to include** (product vs. period costs).
- The **cost flow assumption** (FIFO, LIFO, Average cost, Specific Identification, Retail, etc.).

Physical Goods Included in Inventory

Physical Goods

A company should record purchases when it obtains legal title to the goods.

Special Consideration:

- Goods in Transit (FOB shipping point, FOB destination)
- Consigned goods
- Sales with buyback agreement
- Sales with high rates of return
- Sales on installment
- Inventory errors

LO 2 Distinguish between perpetual and periodic inventory systems.

Effect of Inventory Errors

Ending Inventory Understated

Balance Sheet		Income Statement	
Inventory	Understated	Cost of goods sold	Overstated
Retained earnings	Understated		
Working capital (current assets less current liabilities)	Understated	Net income	Understated
Current ratio (current assets divided by current liabilities)	Understated		

Illustration 8-6

The effect of an error on net income in one year (2006) will be counterbalanced in the next (2007), however the income statement will be misstated for both years.

Effect of Inventory Errors

Purchases and Inventory Understated

Balance Sheet		Income Statement	
Inventory	Understated	Purchases	Understated
Retained earnings	No effect	Cost of goods sold	No effect
Accounts payable	Understated	Net income	No effect
Working capital	No effect	Inventory (ending)	Understated
Current ratio	Overstated		

Illustration 8-8

The understatement does not affect cost of goods sold and net income because the errors offset one another.

LO 3 Identify the effects of inventory errors on the financial statements.

Costs Included in Inventory

- **Product Costs** - costs directly connected with bringing the goods to the buyer's place of business and converting such goods to a salable condition.
- **Period Costs** – generally selling, general, and administrative expenses.
- **Purchase Discounts** – Gross vs. Net Method

LO 4 Understand the items to include as inventory cost.

Treatment of Purchase Discounts

Gross Method vs. Net Method

Purchase cost $20,000, terms 2/10, net 30:

Gross Method			Net Method		
Purchases	20,000		Purchases	19,600	
Accounts payable		20,000	Accounts payable		19,600

Invoices of $15,000 are paid within discount period:

Gross Method			Net Method		
Accounts payable	15,000		Accounts payable	14,700	
Purchase discounts		300	Cash		14,700
Cash		14,700			

Invoices of $5,000 are paid after discount period:

Gross Method			Net Method		
Accounts payable	5,000		Accounts payable	4,900	
Cash		5,000	Purchase discount lost	100	
			Cash		5,000

LO 4 Understand the items to include as inventory cost.

What Cost Flow Assumption to Adopt?

FIFO

LIFO

Cost Flow Assumption Adopted

does not need to equal

Physical Movement of Goods

Average Cost

Specific Identification

Answer: Method adopted should be one that most clearly reflects periodic income.

Cost Flow Assumptions

Example

Young & Crazy Company makes the following purchases:

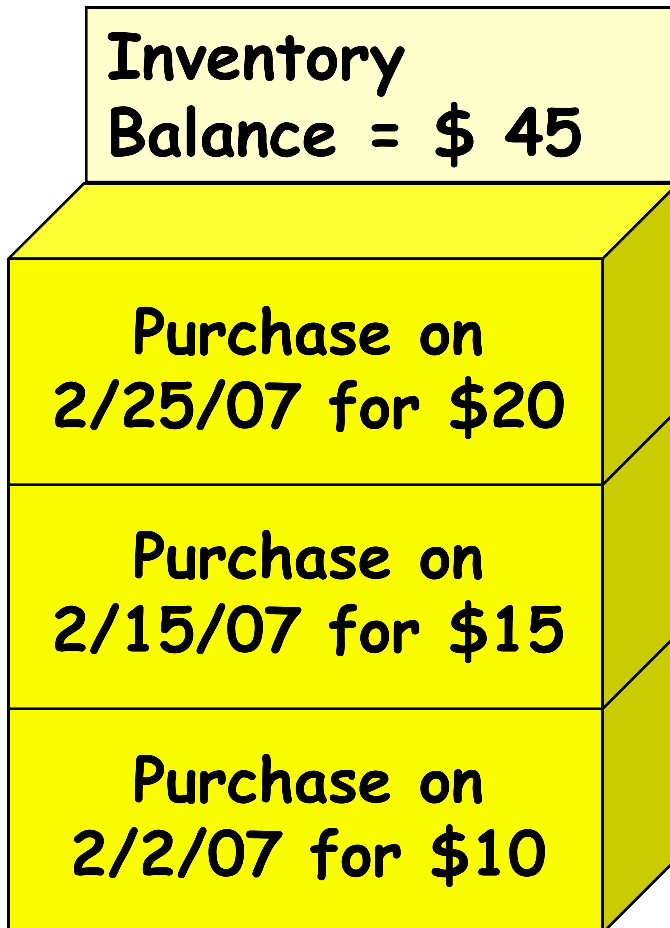
1. One item on 2/2/07 for $10
2. One item on 2/15/07 for $15
3. One item on 2/25/07 for $20

Young & Crazy Company sells one item on 2/28/07 for $90. What would be the balance of ending inventory and cost of goods sold for the month ended Feb. 2007, assuming the company used the **FIFO**, **LIFO**, **Average Cost**, and **Specific Identification** cost flow assumptions? Assume a tax rate of 30%.

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

"First-In-First-Out (FIFO)"



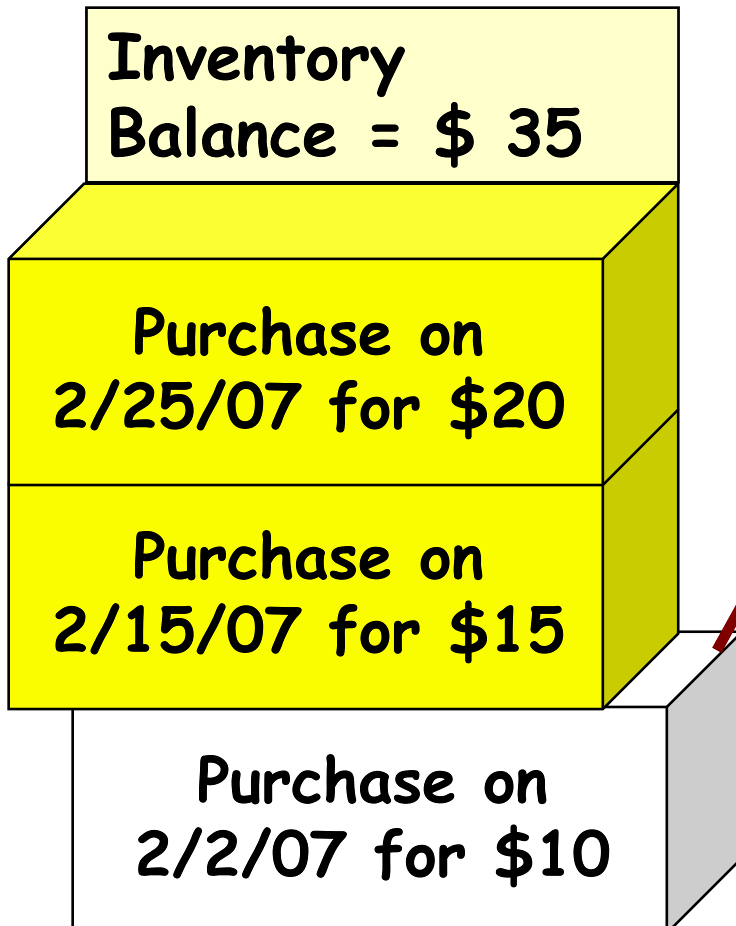
Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales		$ 90
Cost of goods sold		0
Gross profit		90
Expenses:		
Administrative		14
Selling		12
Interest		7
Total expenses		33
Income before tax		57
Taxes		17
Net Income		$ 40

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

"First-In-First-Out (FIFO)"



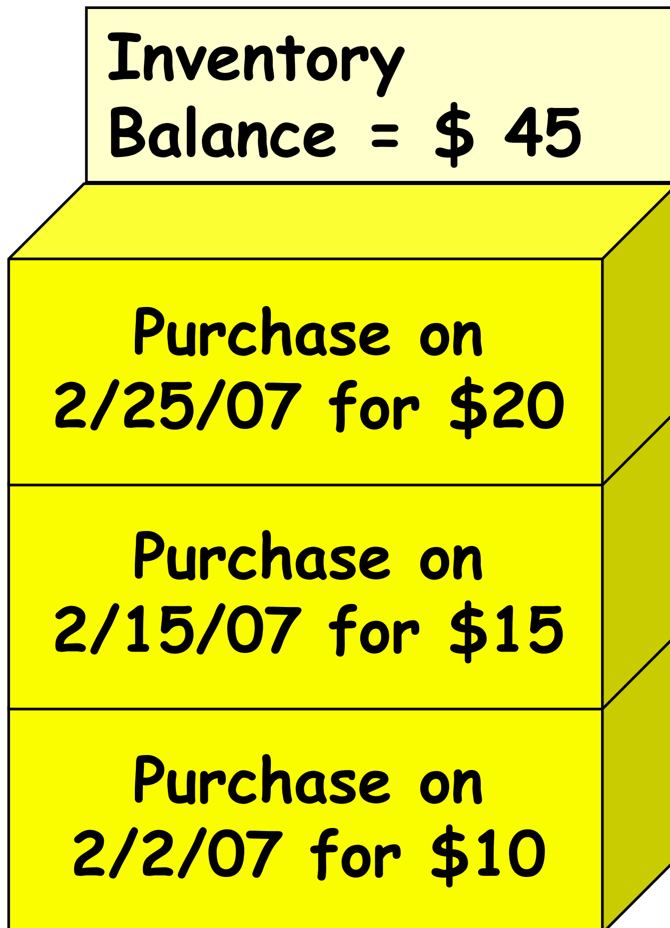
Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	10
Gross profit	80
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	47
Taxes	14
Net Income	$ 33

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

"Last-In-First-Out (LIFO)"



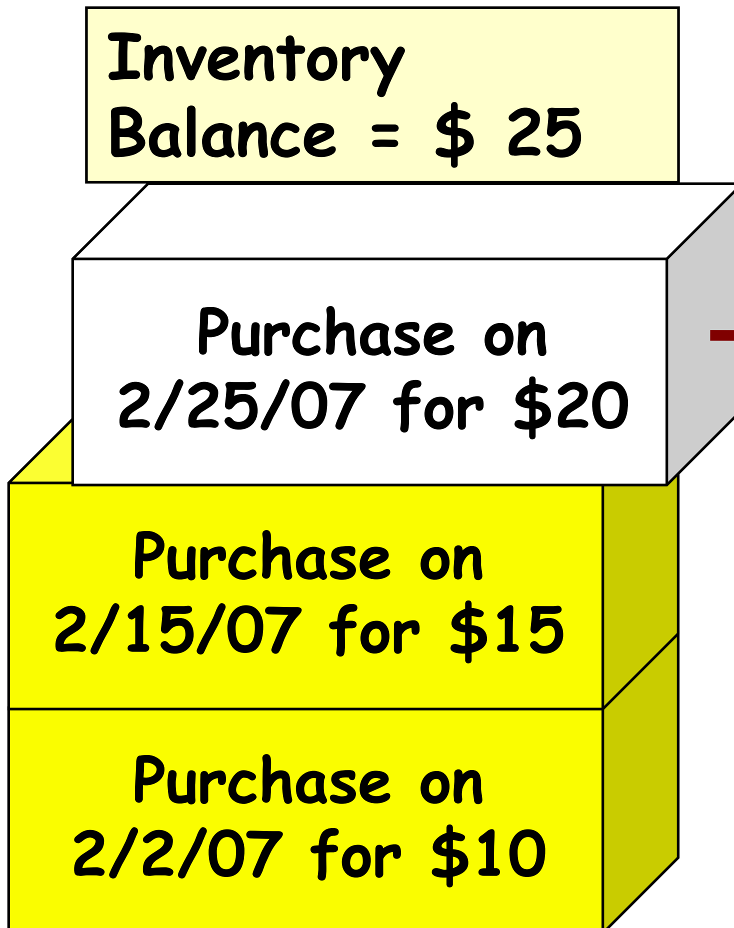
Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	0
Gross profit	90
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	57
Taxes	17
Net Income	$ 40

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

"Last-In-First-Out (LIFO)"



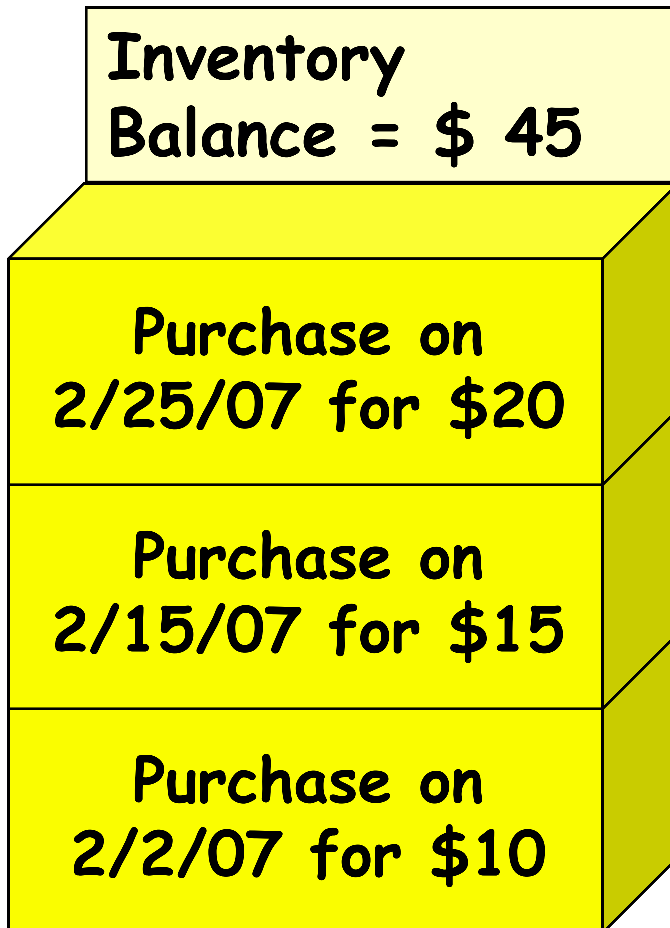
Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	20
Gross profit	70
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	37
Taxes	11
Net Income	$ 26

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

"Average Cost"



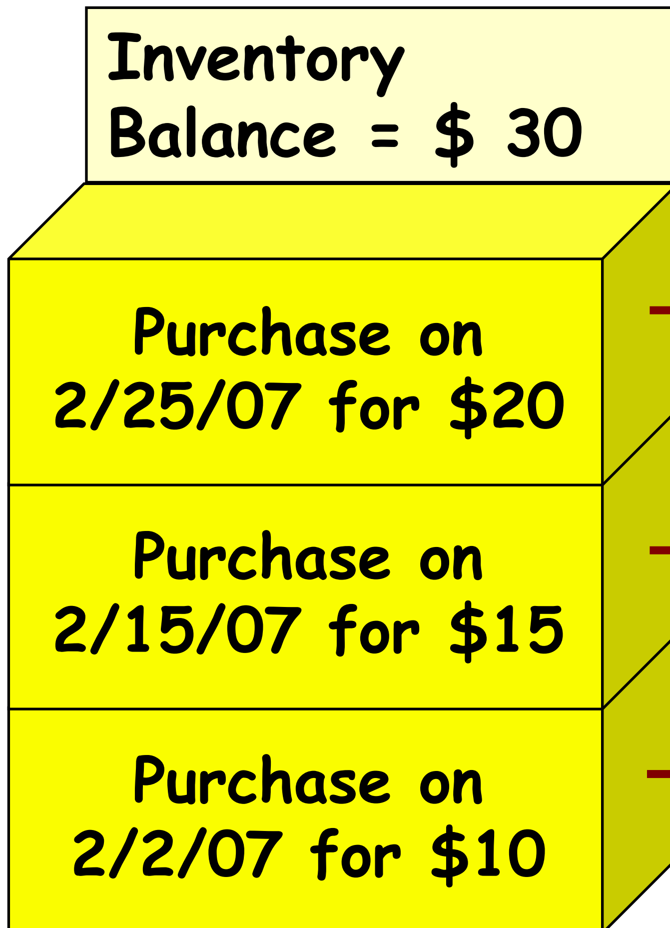
Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	0
Gross profit	90
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	57
Taxes	17
Net Income	$ 40

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

"Average Cost"



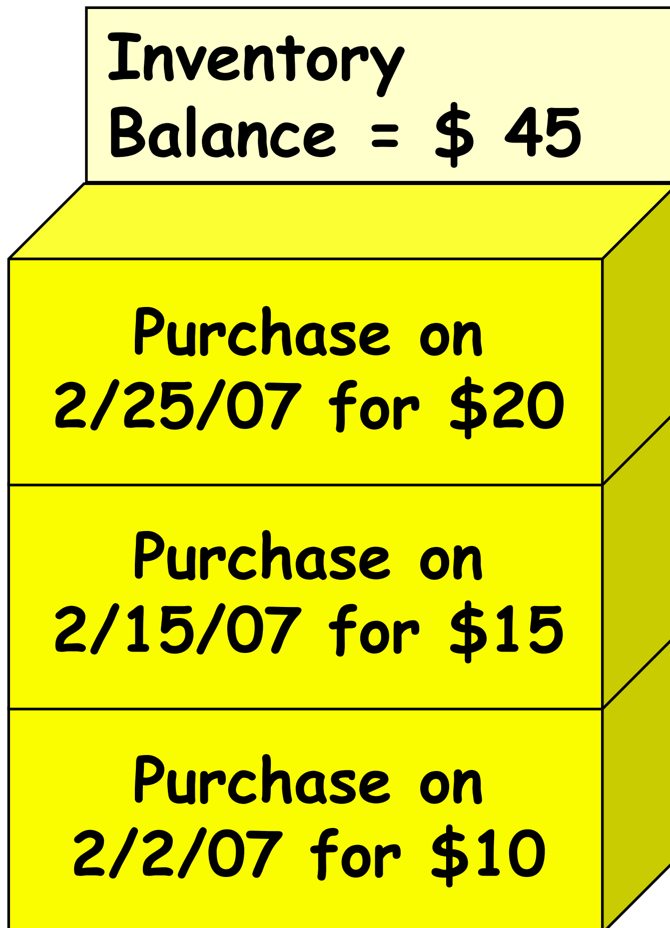
Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	15
Gross profit	75
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	42
Taxes	12
Net Income	$ 30

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

"Specific Identification"



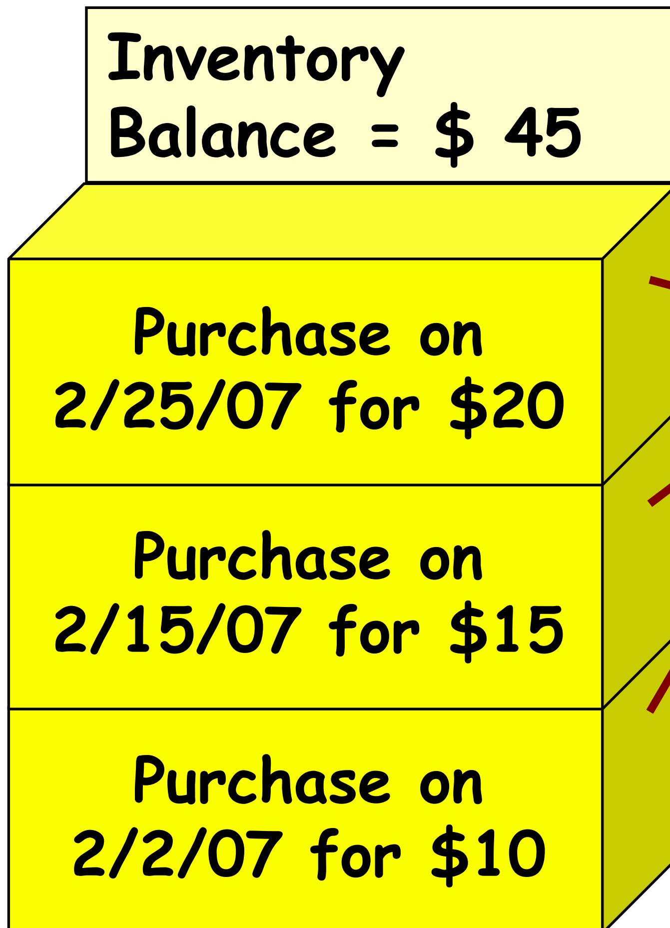
Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	0
Gross profit	90
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	57
Taxes	17
Net Income	$ 40

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

"Specific Identification"



Young & Crazy Company

Income Statement

Depends which one is sold

Sales	$ 90
Cost of goods sold	0
Gross profit	90
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	57
Taxes	17
Net Income	$ 40

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

Financial Statement Summary

	FIFO	LIFO	Average
Sales	$ 90	$ 90	$ 90
Cost of goods sold	10	20	15
Gross profit	80	70	75
Operating expenses:			
Administrative	14	14	14
Selling	12	12	12
Interest	7	7	7
Total expenses	33	33	33
Income before taxes	47	37	42
Income tax expense	14	11	12
Net income	$ 33	$ 26	$ 30
Inventory Balance	35	25	30

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

Example – Perpetual and Periodic Methods

Inventory information for Part 686 for the month of June.

June						
June	1	Beg. Balance	300 units @ $10	=	$ 3,000	Goods Available $19,100
	10	Sold	200 units @ $24			
	11	Purchased	800 units @ $12	=	9,600	
	15	Sold	500 units @ $25			
	20	Purchased	500 units @ $13	=	6,500	
	27	Sold	300 units @ $27			

1. Assuming the Perpetual Inventory Method, compute the Cost of Goods Sold and Ending Inventory under FIFO, LIFO, and Average cost.
2. Assuming the Periodic Inventory Method, compute the Cost of Goods Sold and Ending Inventory under FIFO, LIFO, and Average cost.

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

Perpetual Inventory

+

FIFO Method

FIFO:					
Transactions:		Inventory Balance:			
Date	Units	Layer 1	Layer 2	Layer 3	Total
Jun 1	300	300			
Jun 10	(200)	(200)			
Jun 11	800		800		
Jun 15	(500)	(100)	(400)		
Jun 20	500			500	
Jun 27	(300)		(300)		
		-	100	500	600
Cost		$ 10	$ 12	$ 13	
	600	$ -	$ 1,200	$ 6,500	$ 7,700

Calculation of Cost of Goods Sold:	Units	Dollars
Beg. inventory	300	$ 3,000
Purchases	1,300	16,100
Goods available	1,600	19,100
Ending inventory	(600)	(7,700)
COGS	1,000	$ 11,400

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

Perpetual Inventory

+

LIFO Method

LIFO:					
Transactions:		Inventory Balance:			
Date	Units	Layer 1	Layer 2	Layer 3	Total
Jun 1	300	300			
Jun 10	(200)	(200)			
Jun 11	800		800		
Jun 15	(500)		(500)		
Jun 20	500			500	
Jun 27	(300)			(300)	
		100	300	200	600
Cost		$ 10	$ 12	$ 13	
	600	$ 1,000	$ 3,600	$ 2,600	$ 7,200

Calculation of Cost of Goods Sold:	Units	Dollars
Beg. inventory	300	$ 3,000
Purchases	1,300	16,100
Goods available	1,600	19,100
Ending inventory	(600)	(7,200)
COGS	1,000	$ 11,900

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

Perpetual Inventory + **Moving Average**

Transactions:				Running Balances		Average
Date	Units	Cost	Total	Units	Cost	Cost
Jun 1	300	$ 10.00	$ 3,000	300	$ 3,000	$ 10.00
Jun 10	(200)	10.00	(2,000)	100	1,000	10.00
Jun 11	800	12.00	9,600	900	10,600	11.78
Jun 15	(500)	11.78	(5,890)	400	4,710	11.78
Jun 20	500	13.00	6,500	900	11,210	12.46
Jun 27	(300)	12.46	(3,738)	600	7,472	12.46
	600		$ 7,472			
	Cost of Goods Sold:			Units	Dollars	
	Beg. inventory			300	$ 3,000	
	Purchases			1,300	16,100	
	Goods available			1,600	19,100	
	Ending inventory			(600)	(7,472)	
	COGS			1,000	$ 11,628	

Cost per unit sold is determined by dividing total inventory $ by total units on hand after each purchase.

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

Perpetual Inventory + **Moving Average**

Transactions:				Running Balances		Average
Date	Units	Cost	Total	Units	Cost	Cost
Jun 1	300	$ 10.00	$ 3,000	300	$ 3,000	$ 10.00
Jun 10	(200)	10.00	(2,000)	100	1,000	10.00
Jun 11	800	12.00	9,600	900	10,600	11.78
Jun 15	(500)	11.78	(5,890)	400	4,710	11.78
Jun 20	500	13.00	6,500	900	11,210	12.46
Jun 27	(300)	12.46	(3,738)	600	7,472	12.46
	600		$ 7,472			

Cost of Goods Sold:	Units	Dollars
Beg. inventory	300	$ 3,000
Purchases	1,300	16,100
Goods available	1,600	19,100
Ending inventory	(600)	(7,472)
COGS	1,000	$ 11,628

Cost per unit sold is determined by dividing total inventory $ by total units on hand after each purchase.

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

Periodic Inventory

+

FIFO Method

FIFO:					
Transactions:		**Inventory Balance:**			
Date	**Units**	**Layer 1**	**Layer 2**	**Layer 3**	**Total**
Jun 1	300				
Jun 10	(200)				
Jun 11	800		100		
Jun 15	(500)				
Jun 20	500			500	
Jun 27	(300)				
		-	100	500	600
Cost		$ 10	$ 12	$ 13	
	600	$ -	$ 1,200	$ 6,500	$ 7,700

Calculation of Cost of Goods Sold:	Units	Dollars
Beg. inventory	300	$ 3,000
Purchases	1,300	16,100
Goods available	1,600	19,100
Ending inventory	(600)	(7,700)
COGS	1,000	$ 11,400

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

Periodic Inventory

+

LIFO Method

LIFO:					
Transactions:		Inventory Balance:			
Date	Units	Layer 1	Layer 2	Layer 3	Total
Jun 1	300	300			
Jun 10	(200)				
Jun 11	800		300		
Jun 15	(500)				
Jun 20	500				
Jun 27	(300)				
		300	300	-	600
Cost		$ 10	$ 12	$ 13	
	600	$ 3,000	$ 3,600	$ -	$ 6,600

Calculation of Cost of Goods Sold:	Units	Dollars
Beg. inventory	300	$ 3,000
Purchases	1,300	16,100
Goods available	1,600	19,100
Ending inventory	(600)	(6,600)
COGS	1,000	$ 12,500

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Cost Flow Assumptions

Periodic Inventory + Weighted Average

Transactions:			
Date	Units	Cost	Total
Jun 1	300	$ 10.00	$ 3,000
Jun 10			-
Jun 11	800	12.00	9,600
Jun 15			-
Jun 20	500	13.00	6,500
Jun 27			-
	1600		19,100
Divided by units available			1,600
Average cost per unit			11.94
Unit on hand			600
Ending inventory			$ 7,163

Calculation of Cost of Goods Sold:		
	Units	Dollars
Beg. inventory	300	$ 3,000
Purchases	1,300	16,100
Goods available	1,600	19,100
Ending inventory	(600)	(7,163)
COGS	1,000	$ 11,938

LO 5 Describe and compare the cost flow assumptions used to account for inventories.

Special Issues Related to LIFO

LIFO Reserve

Many companies use

- LIFO for tax and external financial reporting purposes
- FIFO, average cost, or standard cost system for internal reporting purposes.

Reasons:

1. Pricing decisions
2. Record keeping easier
3. Profit-sharing or bonus arrangements
4. LIFO troublesome for interim periods

LO 6 Explain the significance and use of a LIFO reserve.

Special Issues Related to LIFO

LIFO Reserve is the difference between the inventory method used for internal reporting purposes and LIFO.

Example:

FIFO value per books	$160,000
LIFO value	145,000
LIFO Reserve	$ 15,000

Journal entry to reduce inventory to LIFO:

	Debit	Credit
Cost of goods sold	15,000	
LIFO reserve		15,000

> Companies should disclose either the LIFO reserve or the replacement cost of the inventory.

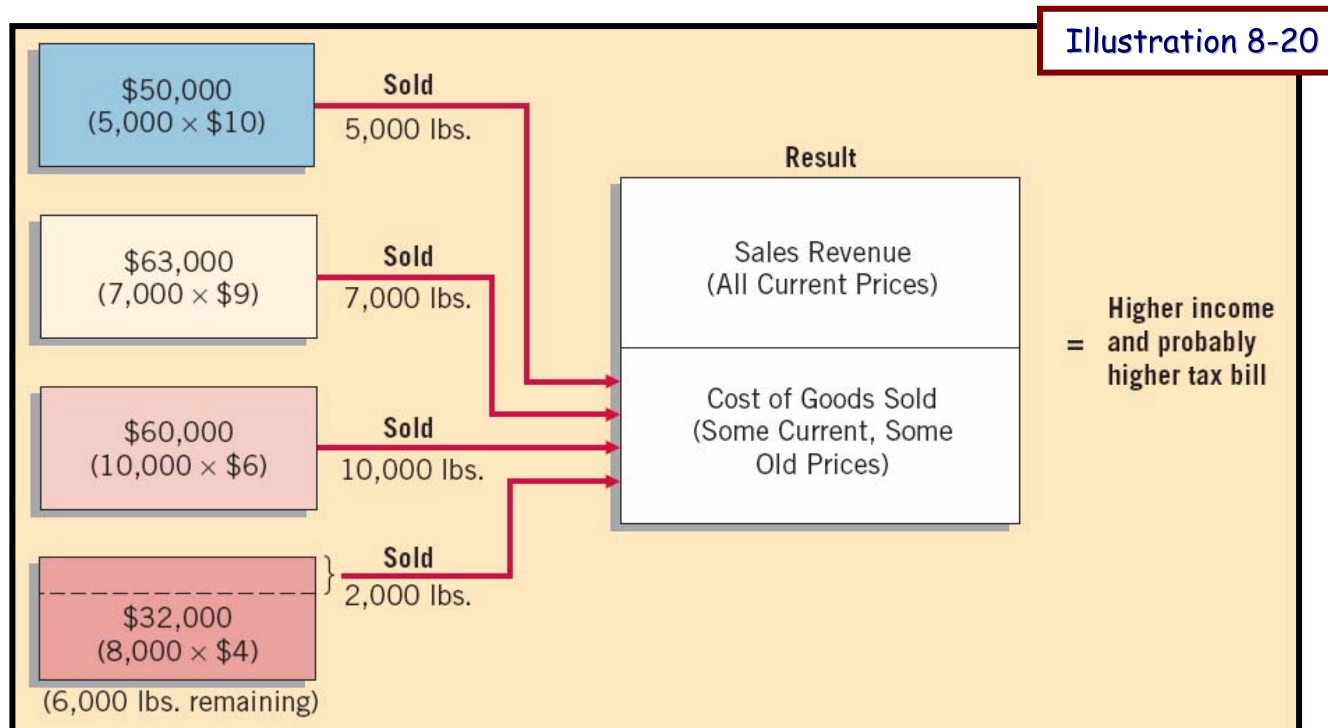
LO 6 Explain the significance and use of a LIFO reserve.

Special Issues Related to LIFO

LIFO Liquidation

Older, low cost inventory is sold resulting in a lower cost of goods sold, higher net income, and higher taxes.

Illustration 8-20



LO 7 Understand the effect of LIFO liquidations.

Special Issues Related to LIFO

Dollar-Value LIFO

- Changes in a pool are measured in terms of total dollar value, not physical quantity.

Advantage:

- Broader range of goods in pool.
- Permits replacement of goods that are similar.
- Helps protect LIFO layers from erosion.

Special Issues Related to LIFO

Dollar-Value LIFO

Exercise 8-26 The following information relates to the Jimmy Johnson Company.

Date	Ending Inventory (End-of-Year Prices)	Price Index
December 31, 2003	$ 70,000	100
December 31, 2004	90,300	105
December 31, 2005	95,120	116

Use the dollar-value LIFO method to compute the ending inventory for 2003 through 2005.

LO 8 Explain the dollar-value LIFO method.

Special Issues Related to LIFO

Exercise 8-26 Solution

	Inventory at		Inventory at				$ Value	
	End-of-Year		Base-Year	Base		$ Value	LIFO	LIFO
Year	Prices	Index	Prices	Layers	Index	LIFO	TOTAL	Reserve
2003	$ 70,000	1.00	$ 70,000	$ 70,000	1.00	$ 70,000	$ 70,000	$ -
2004	90,300	1.05	86,000	70,000	1.00	70,000		
				16,000	1.05	16,800	86,800	3,500
2005	95,120	1.16	82,000	70,000	1.00	70,000		
				12,000	1.05	12,600	82,600	12,520
			Dec. 31	Dec. 31		Dec. 31		
Balance Sheet			2003	2004		2005		
	Inventory		$ 70,000	$ 90,300		$ 95,120		
	LIFO Reserve		-	(3,500)		(12,520)		
			$ 70,000	$ 86,800		$ 82,600		
Journal entry								
	Cost of goods sold			3,500		9,020		
	Lifo reserve			(3,500)		(9,020)		

LO 8 Explain the dollar-value LIFO method.

Special Issues Related to LIFO

Comparison of LIFO Approaches

- Specific-goods LIFO - costing goods on a unit basis is expensive and time consuming.
- Specific-goods Pooled LIFO approach
  - reduces record keeping and clerical costs.
  - more difficult to erode the layers.
  - using quantities as measurement basis can lead to untimely LIFO liquidations.
- Dollar-value LIFO is used by most companies.

LO 8 Explain the dollar-value LIFO method.

Special Issues Related to LIFO

Advantages

- Matching
- Tax Benefits/Improved Cash Flow
- Future Earnings Hedge

Disadvantages

- Reduced earnings
- Inventory understated
- Physical flow
- Involuntary Liquidation / Poor Buying Habits

LO 9 Identify the major advantages and disadvantages of LIFO.

Basis for Selection of Inventory Method

LIFO is generally preferred:

1. if selling prices are increasing faster than costs and
2. if a company has a fairly constant "base stock."

LIFO not appropriate:

1. if prices tend to lag behind costs,
2. if specific identification traditionally used, and
3. when unit costs tend to decrease as production increases.

LO 10 Understand why companies select given inventory methods.

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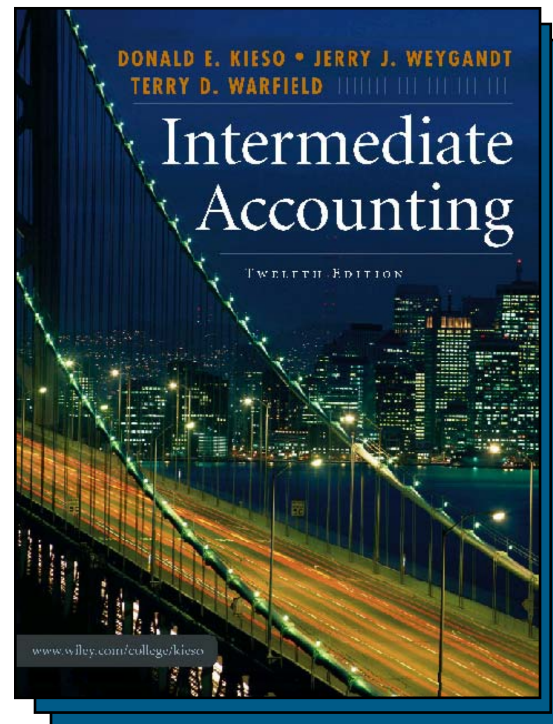
Inventories: Additional Valuation Issues

Chapter 9

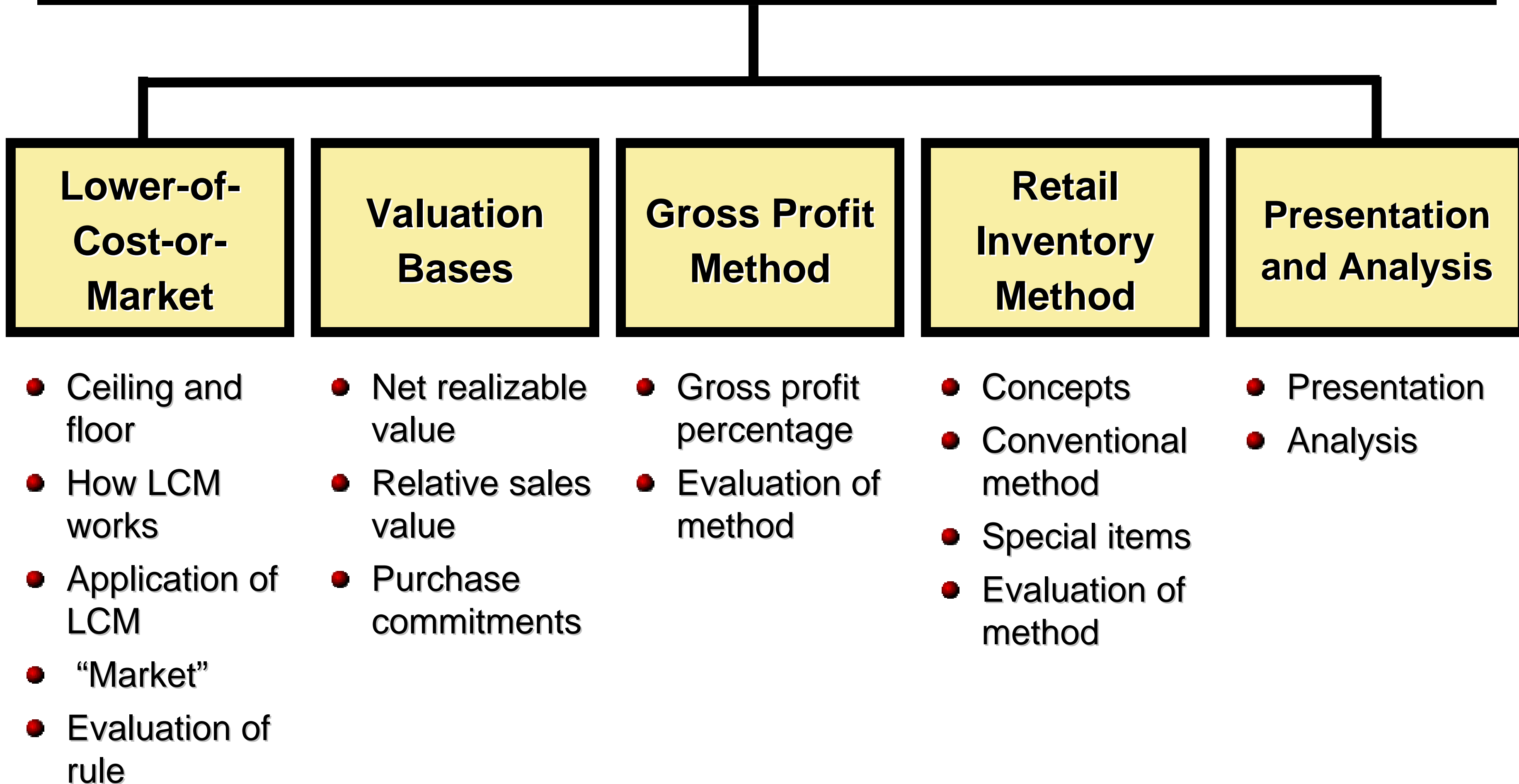
Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Describe and apply the lower-of-cost-or-market rule.
2. Explain when companies value inventories at net realizable value.
3. Explain when companies use the relative sales value method to value inventories.
4. Discuss accounting issues related to purchase commitments.
5. Determine ending inventory by applying the gross profit method.
6. Determine ending inventory by applying the retail inventory method.
7. Explain how to report and analyze inventory.


Inventories: Additional Valuation Issues
Lower-of-Cost-or-Market
Valuation Bases
Gross Profit Method
Retail Inventory Method
Presentation and Analysis
Ceiling and floor
How LCM works
Application of LCM
"Market"
Evaluation of rule
Net realizable value
Relative sales value
Purchase commitments
Gross profit percentage
Evaluation of method
Concepts
Conventional method
Special items
Evaluation of method
Presentation
Analysis

Lower-of-Cost-or-Market

LCM

A company abandons the historical cost principle when the future utility (revenue-producing ability) of the asset drops below its original cost.

- Market = Replacement Cost
- Lower of Cost or Replacement Cost
- Loss should be recorded when loss occurs, not in the period of sale.

LO 1 Describe and apply the lower-of-cost-or-market rule.

Lower-of-Cost-or-Market

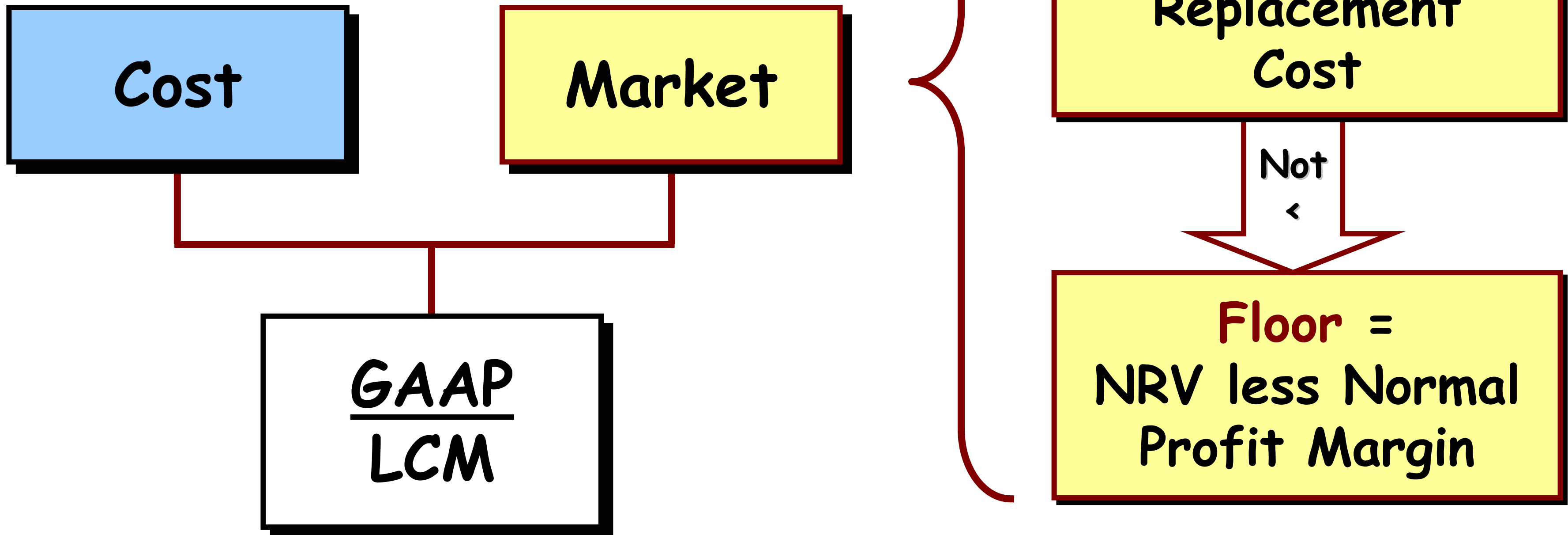
Ceiling and Floor

Why use Replacement Cost (RC) for Market?

- Decline in the RC usually = decline in selling price.
- RC allows a consistent rate of gross profit.
- If reduction in RC fails to indicate reduction in utility, then two additional valuation limitations are used:
  - **Ceiling** - net realizable value and
  - **Floor** - net realizable value less a normal profit margin.

Lower-of-Cost-or-Market

What is the rationale for the **Ceiling** and **Floor** limitations?



LO 1 Describe and apply the lower-of-cost-or-market rule.

Lower-of-Cost-or-Market

Rationale for Limitations

Ceiling – prevents overstatement of the value of obsolete, damaged, or shopworn inventories.

Floor – deters understatement of inventory and overstatement of the loss in the current period.

Lower-of-Cost-or-Market

How LCM Works (Individual Items)

Illustration 9-5

Food	Cost	Replacement Cost	Net Realizable Value (Ceiling)	Net Realizable Value Less a Normal Profit Margin (Floor)	Designated Market Value	Final Inventory Value
Spinach	$ 80,000	$ 88,000	$120,000	$104,000	$104,000	$ 80,000
Carrots	100,000	90,000	100,000	70,000	90,000	90,000
Cut beans	50,000	45,000	40,000	27,500	40,000	40,000
Peas	90,000	36,000	72,000	48,000	48,000	48,000
Mixed vegetables	95,000	105,000	92,000	80,000	92,000	92,000
						$350,000

LO 1 Describe and apply the lower-of-cost-or-market rule.

Lower-of-Cost-or-Market

Methods of Applying LCM

Illustration 9-6

	Cost	Designated Market	Lower-of-Cost-or-Market By: Individual Items	Major Categories	Total Inventory
Frozen					
Spinach	$ 80,000	$104,000	$ 80,000		
Carrots	100,000	90,000	90,000		
Cut beans	50,000	40,000	40,000		
Total frozen	230,000	234,000		$230,000	
Canned					
Peas	90,000	48,000	48,000		
Mixed vegetables	95,000	92,000	92,000		
Total canned	185,000	140,000		140,000	
Total	$415,000	$374,000	$350,000	$370,000	$374,000

LO 1 Describe and apply the lower-of-cost-or-market rule.

Lower-of-Cost-or-Market

Recording LCM (data from Illus. 9-5 and 9-6)

Ending inventory (cost)	$ 415,000
Ending inventory (LCM)	350,000
Adjustment to LCM	$ 65,000

Allowance Method

Loss on inventory	65,000	
Allowance on inventory		65,000

Direct Method

Cost of goods sold	65,000	
Inventory		65,000

Lower-of-Cost-or-Market

Balance Sheet Presentation

	Allowance	Direct
Current assets:		
Cash	$ 100,000	$ 100,000
Accounts receivable	350,000	350,000
Inventory	770,000	705,000
Less: inventory allowance	(65,000)	
Prepaids	20,000	20,000
Total current assets	1,175,000	1,175,000

LO 1 Describe and apply the lower-of-cost-or-market rule.

Lower-of-Cost-or-Market

Income Statement Presentation	Allowance	Direct
Sales	$ 300,000	$ 300,000
Cost of goods sold	120,000	185,000
Gross profit	180,000	115,000
Operating expenses:		
Selling	45,000	45,000
General and administrative	20,000	20,000
Total operating expenses	65,000	65,000
Other revenue and expense:		
Loss on inventory	65,000	-
Interest income	5,000	5,000
Total other	(60,000)	5,000
Income from operations	55,000	55,000
Income tax expense	16,500	16,500
Net income	$ 38,500	$ 38,500

LO 1 Describe and apply the lower-of-cost-or-market rule.

Lower-of-Cost-or-Market

P9-1 Grant Wood Company manufactures desks. The company attempts to obtain a 20% gross margin on selling price. At December 31, 2008, the following finished desks appear in the company's inventory.

Finished Desks	A	B	C	D
Inventory cost	$ 470	$ 450	$ 830	$ 960
Est. cost to manufacture	460	440	610	1,000
Commissions and disposal costs	45	60	90	130
Catalog selling price	500	540	900	1,200

Instructions:

At what amount should the desks appear in the company's December 31, 2008, inventory, assuming that the company has adopted a lower-of-cost-or-market approach for valuation of inventories on an individual-item basis?

LO 1 Describe and apply the lower-of-cost-or-market rule.

Lower-of-Cost-or-Market

Finished Desks	A
Inventory cost	$ 470
Est. cost to manufacture	460
Commissions and disposal costs	45
Catalog selling price	500

Ceiling = 455
(500 – 45)

Not
>

Replacement
Cost = 460

Not
<

Floor = 355
(455-(500 x 20%))

Cost = 470

Market = 455

LCM = 455

LO 1 Describe and apply the lower-of-cost-or-market rule.

Lower-of-Cost-or-Market

Finished Desks	B
Inventory cost	$ 450
Est. cost to manufacture	440
Commissions and disposal costs	60
Catalog selling price	540

Cost = 450

Market = 440

LCM = 440

Ceiling = 480
(540 – 60)

Not >

Replacement Cost = 440

Not <

Floor = 372
(480-(540 x 20%))

LO 1 Describe and apply the lower-of-cost-or-market rule.

Lower-of-Cost-or-Market

Finished Desks	C
Inventory cost	$ 830
Est. cost to manufacture	610
Commissions and disposal costs	90
Catalog selling price	900

Ceiling = 810
(900 – 90)

Not >

Replacement Cost = 610

Not <

Floor = 630
(810-(900 x 20%))

Cost = 830

Market = 630

LCM = 630

LO 1 Describe and apply the lower-of-cost-or-market rule.

Lower-of-Cost-or-Market

Finished Desks	D
Inventory cost	$ 960
Est. cost to manufacture	1,000
Commissions and disposal costs	130
Catalog selling price	1,200

Ceiling = 1,070
(1,200 - 130)

Not >

Replacement Cost = 1,000

Not <

Floor = 830
(1,070-(1,200 x 20%))

Cost = 960

Market = 1,000

LCM = 960

LO 1 Describe and apply the lower-of-cost-or-market rule.

Evaluation of LCM Rule

Some Deficiencies:

- Expense recorded when loss in utility occurs. Profit on sale recognized at the point of sale.
- Inventory valued at cost in one year and at market in the next year.
- Net income in year of loss is lower. Net income in subsequent period may be higher than normal if expected reductions in sales price do not materialize.
- LCM uses a "normal profit" in determining inventory values, which is a subjective measure.

Valuation Bases

Net Realizable Value

Permitted by GAAP under the following conditions:

(1) a controlled market with a quoted price applicable to all quantities, and

(2) no significant costs of disposal (rare metals and agricultural products)

or

(3) too difficult to obtain cost figures (meatpacking)

LO 2 Explain when companies value inventories at net realizable value.

Valuation Bases

Relative Sales Value

Used when buying varying units in a single lump-sum purchase.

E9-7 (Relative Sales Value Method) Phil Collins Realty Corporation purchased a tract of unimproved land for $55,000. This land was improved and subdivided into building lots at an additional cost of $34,460. These building lots were all of the same size but owing to differences in location were offered for sale at different prices as follows. Operating expenses allocated to this project total $18,200.

Group	No. of Lots	Price per Lot	Lots Unsold at Year-End
1	9	$ 3,000	5
2	15	4,000	7
3	17	2,400	2

Instructions: Calculate the net income realized on this operation to date.

LO 3 Explain when companies use the relative sales value method to value inventories.

Valuation Bases

E9-7 (Relative Sales Value Method - Solution)

Group	No. of Lots	×	Price per Lot	=	Selling Price	Relative Sales Price	×	Total Cost	=	Cost Allocated	Cost Per Lot
1	9		$ 3,000		$ 27,000	$27,000/127,800		$ 89,460		$ 18,900	$ 2,100
2	15		4,000		60,000	60,000/127,800		89,460		42,000	2,800
3	17		2,400		40,800	40,000/127,800		89,460		28,560	1,680
					$ 127,800					$ 89,460	

Group	Lots Sold	×	Price per Lot	=	Total Sales	Cost Per Lot	Total Cost of Goods
1	4		$ 3,000		$ 12,000	$ 2,100	$ 8,400
2	8		4,000		32,000	2,800	22,400
3	15		2,400		36,000	1,680	25,200
					$ 80,000		$ 56,000

Calculation of Net Income

Sales	$ 80,000
Cost of good sold	56,000
Gross profit	24,000
Expenses	18,200
Net income	$ 5,800

LO 3 Explain when companies use the relative sales value method to value inventories.

Valuation Bases

Purchase Commitments

- Generally seller retains title to the merchandise.
- Buyer recognizes no asset or liability.
- If material, the buyer should disclose contract details in footnote.
- If the contract price is greater than the market price, and the buyer expects that losses will occur when the purchase is effected, the buyer should recognize losses in the period during which such declines in market prices take place.

LO 4 Discuss accounting issues related to purchase commitments.

Gross Profit Method

Substitute Measure to Approximate Inventory

Relies on Three Assumptions:

(1) Beginning inventory plus purchases equal total goods to be accounted for.

(2) Goods not sold must be on hand.

(3) The sales, reduced to cost, deducted from the sum of the opening inventory plus purchases, equal ending inventory.

LO 5 Determine ending inventory by applying the gross profit method.

Gross Profit Method

E9-12 (Gross Profit Method) Mark Price Company uses the gross profit method to estimate inventory for monthly reporting purposes. Presented below is information for the month of May.

Inventory, May 1	$	160,000
Purchases (gross)		640,000
Freight-in		30,000
Sales		1,000,000
Sales returns		70,000
Purchase discounts		12,000

Instructions:

(a) Compute the estimated inventory at May 31, assuming that the gross profit is 30% of sales.

(b) Compute the estimated inventory at May 31, assuming that the gross profit is 30% of cost.

LO 5 Determine ending inventory by applying the gross profit method.

Gross Profit Method

E9-12 (Gross Profit Method - Solution)

(a) Compute the estimated inventory assuming gross profit is 30% of sales.

(a)	Inventory, May 1 (at cost)		$ 160,000
	Purchases (gross) (at cost)		640,000
	Purchase discounts		(12,000)
	Freight-in		30,000
	Goods available (at cost)		818,000
	Sales (at selling price)	$ 1,000,000	
	Sales returns (at selling price)	(70,000)	
	Net sales (at selling price)	930,000	
	Less gross profit (30% of $930,000)	279,000	
	Sales (at cost)		651,000
	Approximate inventory, May 31 (at cost)		$ 167,000

LO 5 Determine ending inventory by applying the gross profit method.

Gross Profit Method

E9-12 (Gross Profit Method - Solution)

(b) Compute the estimated inventory assuming gross profit is 30% of cost.

$$\frac{30\%}{100\% + 30\%} = 23.08\% \text{ of sales}$$

(a)			
(a)	Inventory, May 1 (at cost)		$ 160,000
	Purchases (gross) (at cost)		640,000
	Purchase discounts		(12,000)
	Freight-in		30,000
	Goods available (at cost)		818,000
	Sales (at selling price)	$ 1,000,000	
	Sales returns (at selling price)	(70,000)	
	Net sales (at selling price)	930,000	
	Less gross profit (23.08% of $930,000)	214,644	
	Sales (at cost)		715,356
	Approximate inventory, May 31 (at cost)		$ 102,644

LO 5 Determine ending inventory by applying the gross profit method.

Gross Profit Method

Evaluation:

Disadvantages:

(1) Provides an estimate of ending inventory.

(2) Uses past percentages in calculation.

(3) A blanket gross profit rate may not be representative.

(4) Only acceptable for interim (generally quarterly) reporting purposes.

LO 5 Determine ending inventory by applying the gross profit method.

Retail Inventory Method

A method used by retailers, to value inventory without a physical count, by converting retail prices to cost.

Requires retailers to keep:

(1) the total cost and retail value of goods purchased,

(2) the total cost and retail value of the goods available for sale, and

(3) the sales for the period.

Retail Inventory Method

P9-8 (Retail Inventory Method) Jared Jones Inc. uses the retail inventory method to estimate ending inventory for its monthly financial statements. The following data pertain to a single department for the month of October 2008.

	COST	RETAIL
Beg. inventory, Oct. 1	$ 52,000	$ 78,000
Purchases	262,000	423,000
Freight in	16,600	
Purchase returns	5,600	8,000
Additional markups		9,000
Markup cancellations		2,000
Markdowns (net)		3,600
Normal spoilage		10,000
Sales		380,000

Instructions:

Prepare a schedule computing estimate retail inventory using the following methods:

(1) Cost

(2) LCM

(3) LIFO (appendix)

LO 6 Determine ending inventory by applying the retail inventory method.

Retail Inventory - Cost Method

P9-8 Solution - Cost Method

	COST		RETAIL		Cost to Retail %
Beg. inventory	$ 52,000		$ 78,000		
Purchases	262,000		423,000		
Freight in	16,600				
Purchase returns	(5,600)		(8,000)		
Markdowns, net			(3,600)		
Markups, net			7,000		
Current year additions	273,000		418,400		
Goods available for sale	325,000	/	496,400	=	65.47%
Normal spoilage			(10,000)		
Sales			(380,000)		
Ending inventory at retail			$ 106,400		

Ending inventory at Cost:

$ 106,400 x 65.47% = $ 69,660

LO 6 Determine ending inventory by applying the retail inventory method.

Retail Inventory – LCM Method

P9-8 Solution - LCM (CONVENTIONAL) Method:

	COST		RETAIL		Cost to Retail %
Beg. inventory	$ 52,000		$ 78,000		
Purchases	262,000		423,000		
Freight in	16,600				
Purchase returns	(5,600)		(8,000)		
Markups, net			7,000		
Current year additions	273,000		422,000		
Goods available for sale	325,000	/	500,000	=	65.00%
Markdowns, net			(3,600)		
Normal spoilage			(10,000)		
Sales			(380,000)		
Ending inventory at retail			$ 106,400		

Ending inventory at Cost:

$ 106,400 x 65.00% = $ 69,160

LO 6 Determine ending inventory by applying the retail inventory method.

Retail Inventory - LIFO Method

P9-8 Solution - LIFO Method:

	COST		RETAIL		Cost to Retail %
Beg. inventory	$ 52,000	/	$ 78,000	=	66.67%
Purchases	262,000		423,000		
Freight in	16,600				
Purchase returns	(5,600)		(8,000)		
Markdowns, net			(3,600)		
Markups, net			7,000		
Current year additions	273,000	/	418,400	=	65.25%
Goods available for sale	325,000		496,400		
Normal spoilage			(10,000)		
Sales			(380,000)		
Ending inventory at retail			$ 106,400		

Ending inventory at Cost:

	Retail		%		Cost
PY	$ 78,000	x	66.67%	=	$ 52,000
CY	28,400	x	65.25%	=	18,531
	$ 106,400				$ 70,531

Appendix 9A

LO 8 Determine ending inventory by applying the LIFO retail inventory methods.

Retail Inventory Method

Evaluation:

Widely used for the following reasons:

(1) to permit the computation of net income without a physical count of inventory,

(2) as a control measure in determining inventory shortages,

(3) in regulating quantities of merchandise on hand, and

(4) for insurance information.

Some companies refine the retail method by computing inventory separately by departments or class of merchandise with similar gross profits.

Presentation and Analysis

Presentation:

Accounting standards require disclosure of:

(1) composition of the inventory,

(2) financing arrangements, and

(3) costing methods employed.

Analysis:

Common ratios used in the management and evaluation of inventory levels are inventory turnover and average days to sell the inventory.

LO 7 Explain how to report and analyze inventory.

Presentation and Analysis

Inventory Turnover Ratio

Measures the number of times on average a company sells the inventory during the period.

Illustration 9-26

$$\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

$$\frac{\$5,299}{(\$681 + \$649.8)/2} = 8 \text{ times}$$

Presentation and Analysis

Average Days to Sell Inventory

Measure represents the average number of days' sales for which a company has inventory on hand.

Illustration 9-26

Inventory Turnover →

$$\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

$$\frac{\$5{,}299}{(\$681 + \$649.8)/2} = 8 \text{ times}$$

Average Days to Sell

365 days / 8 times = every 45.6 days

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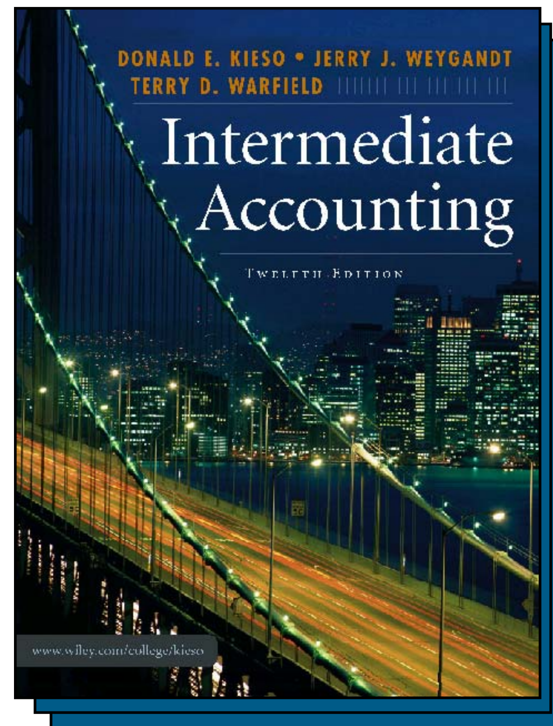
Acquisition and Disposition of Property, Plant, and Equipment

Chapter 10

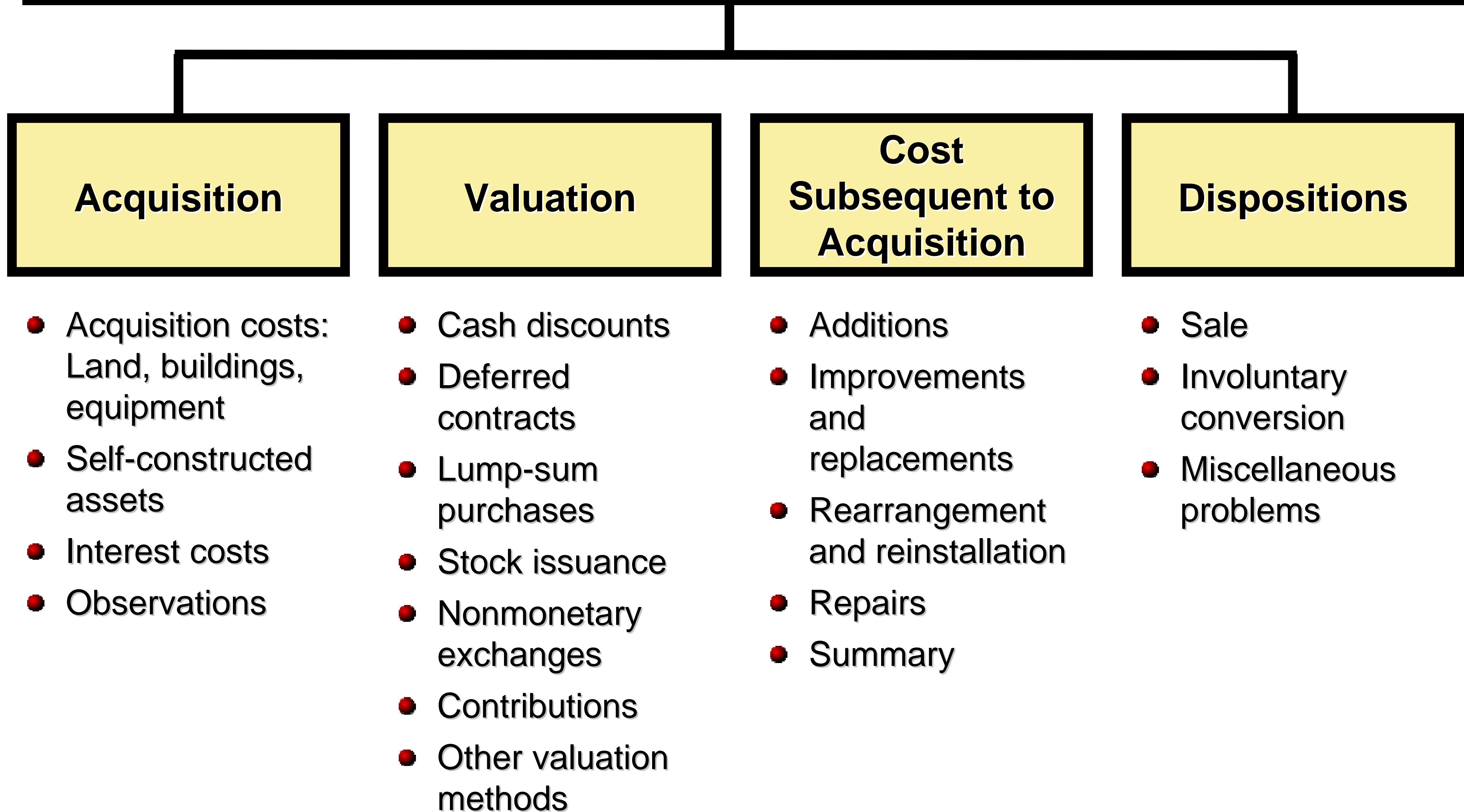
Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Describe property, plant, and equipment.
2. Identify the costs to include in initial valuation of property, plant, and equipment.
3. Describe the accounting problems associated with self-constructed assets.
4. Describe the accounting problems associated with interest capitalization.
5. Understand accounting issues related to acquiring and valuing plant assets.
6. Describe the accounting treatment for costs subsequent to acquisition.
7. Describe the accounting treatment for the disposal of property, plant, and equipment.


Acquisition and Disposition of Property, Plant, and Equipment
Acquisition
Valuation
Cost Subsequent to Acquisition
Dispositions
Acquisition costs: Land, buildings, equipment
Self-constructed assets
Interest costs
Observations
Cash discounts
Deferred contracts
Lump-sum purchases
Stock issuance
Nonmonetary exchanges
Contributions
Other valuation methods
Additions
Improvements and replacements
Rearrangement and reinstallation
Repairs
Summary
Sale
Involuntary conversion
Miscellaneous problems

Property, Plant, and Equipment

Property, plant, and equipment includes land, buildings, and equipment (machinery, furniture, tools).

Major characteristics include:

- "Used in operations" and not for resale.
- Long-term in nature and usually depreciated.
- Possess physical substance.

Acquisition and Valuation of PP&E

Valued at **Historical Cost**, reasons include:

- At acquisition, cost reflects fair value.
- Historical cost is reliable.
- Companies should not anticipate gains and losses but should recognize gains and losses only when the asset is sold.

APB Opinion No. 6 states, "property, plant, and equipment should not be written up to reflect appraisal, market, or current values which are above cost."

Acquisition and Valuation of PP&E

Cost of Land

Includes all costs to acquire land and ready it for use. Costs typically include:

(1) the purchase price;

(2) closing costs, such as title to the land, attorney's fees, and recording fees;

(3) costs of grading, filling, draining, and clearing;

(4) assumption of any liens, mortgages, or encumbrances on the property; and

(5) Additional land improvements that have an indefinite life.

LO 2 Identify the costs to include in initial valuation of property, plant, and equipment.

Acquisition and Valuation of PP&E

Cost of Buildings

Includes all costs related directly to acquisition or construction.

Costs typically include:

(1) materials, labor, and overhead costs incurred during construction and

(2) professional fees and building permits.

LO 2 Identify the costs to include in initial valuation of property, plant, and equipment.

Acquisition and Valuation of PP&E

Cost of Equipment

Include all costs incurred in acquiring the equipment and preparing it for use.

Costs typically include:

(1) purchase price,

(2) freight and handling charges

(3) insurance on the equipment while in transit,

(4) cost of special foundations if required,

(5) assembling and installation costs, and

(6) costs of conducting trial runs.

LO 2 Identify the costs to include in initial valuation of property, plant, and equipment.

Acquisition and Valuation of PP&E

E10-1 (Acquisition Costs of Realty) The following expenditures and receipts are related to land, land improvements, and buildings acquired for use in a business enterprise. Determine how the following should be classified:

		Classification
(a)	Money borrowed to pay building contractor	Notes Payable
(b)	Payment for construction from note proceeds	Building
(c)	Cost of land fill and clearing	Land
(d)	Delinquent real estate taxes on property assumed	Land
(e)	Premium on insurance policy during construction	Building
(f)	Refund of 1-month insurance premium because construction completed early	(Building)

LO 2 Identify the costs to include in initial valuation of property, plant, and equipment.

Acquisition and Valuation of PP&E

E10-1 (Acquisition Costs of Realty) The following expenditures and receipts are related to land, land improvements, and buildings acquired for use in a business enterprise. Determine how the following should be classified:

		Costs of:
(g)	Architect's fee on building	Building
(h)	Cost of real estate purchased as a plant site (land $200,000 and building $50,000)	Land
(i)	Commission fee paid to real estate agency	Land
(j)	Installation of fences around property	Land Improvements
(k)	Cost of razing and removing building	Land
(l)	Proceeds from salvage of demolished building	(Land)
(m)	Cost of parking lots and driveways	Land Improvements
(n)	Cost of trees and shrubbery (permanent)	Land

LO 2 Identify the costs to include in initial valuation of property, plant, and equipment.

Acquisition and Valuation of PP&E

Self-Constructed Assets

Costs typically include:

(1) Materials and direct labor

(2) Overhead can be handled in two ways:

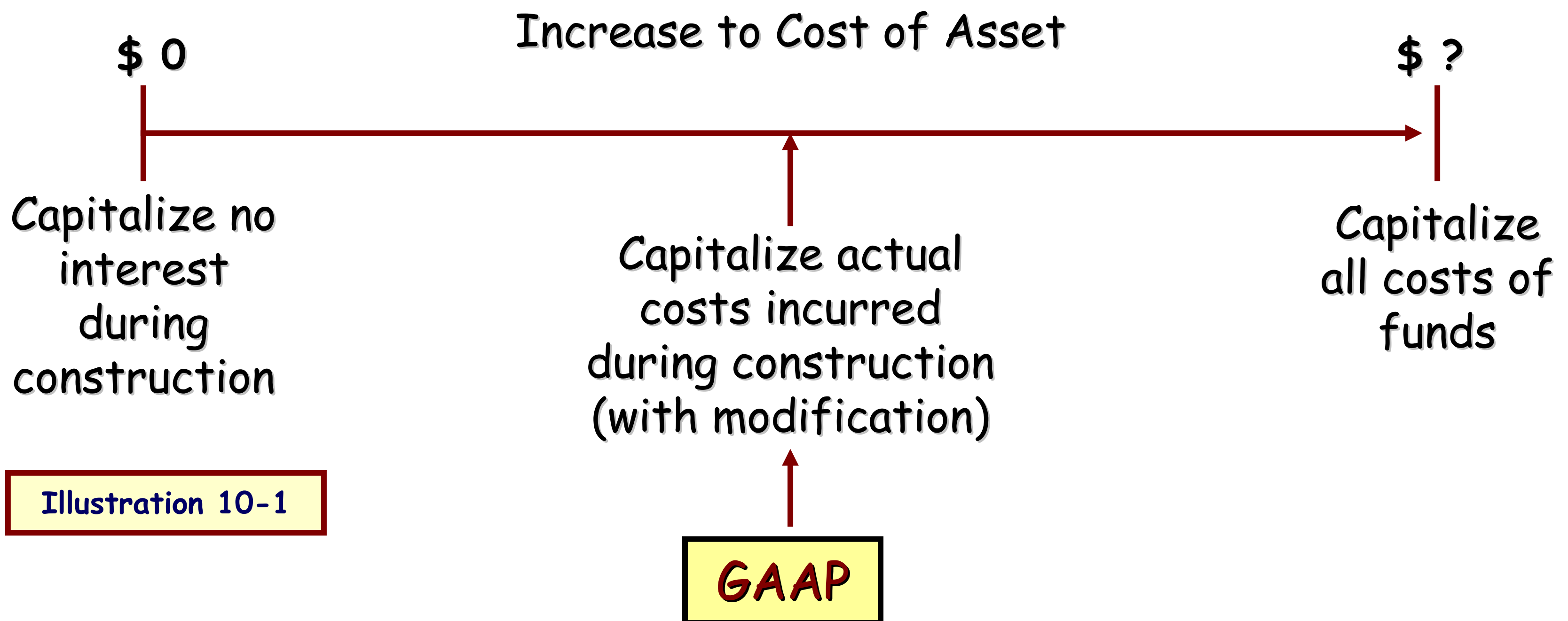
1. Assign no fixed overhead
2. Assign a portion of all overhead to the construction process.

Companies use the second method extensively.

LO 3 Describe the accounting problems associated with self-constructed assets.

Interest Costs During Construction

Three approaches have been suggested to account for the interest incurred in financing the construction.



LO 4 Describe the accounting problems associated with interest capitalization.

Acquisition and Valuation of PP&E

Interest Costs During Construction

- GAAP requires — capitalizing actual interest (with modification).
- Consistent with historical cost — all costs incurred to bring the asset to the condition for its intended use.
- Capitalization considers three items:
  1. Qualifying assets.
  2. Capitalization period.
  3. Amount to capitalize.

LO 4 Describe the accounting problems associated with interest capitalization.

Acquisition and Valuation of PP&E

Qualifying Assets

Require a period of time to get them ready for their intended use.

Two types of assets:

- Assets under construction for a company's own use.
- Assets intended for sale or lease that are constructed or produced as discrete projects.

LO 4 Describe the accounting problems associated with interest capitalization.

Acquisition and Valuation of PP&E

Capitalization Period

Begins when:

1. Expenditures for the asset have been made.
2. Activities for readying the asset are in progress .
3. Interest costs are being incurred.

Ends when:

The asset is substantially complete and ready for use.

LO 4 Describe the accounting problems associated with interest capitalization.

Acquisition and Valuation of PP&E

Amount to Capitalize

Capitalize the lesser of:

1. Actual interest costs
2. Avoidable interest - the amount of interest that could have been avoided if expenditures for the asset had not been made.

LO 4 Describe the accounting problems associated with interest capitalization.

Acquisition and Valuation of PP&E

Interest Capitalization Illustration: Delmar Corporation borrowed $200,000 at 12% interest from State Bank on Jan. 1, 2005, for specific purposes of constructing special-purpose equipment to be used in its operations. Construction on the equipment began on Jan. 1, 2005, and the following expenditures were made prior to the project's completion on Dec. 31, 2005:

Actual Expenditures:

January 1, 2005	$100,000
April 30, 2005	150,000
November 1, 2005	300,000
December 31, 2005	100,000
Total expenditures	$650,000

Other general debt existing on Jan. 1, 2005:

- $500,000, 14%, 10-year bonds payable
- $300,000, 10%, 5-year note payable

LO 4 Describe the accounting problems associated with interest capitalization.

Acquisition and Valuation of PP&E

Step 1 - Determine which assets qualify for capitalization of interest.

Special purpose equipment qualifies because it requires a period of time to get ready and it will be used in the company's operations.

Step 2 - Determine the capitalization period.

The capitalization period is from Jan. 1, 2005 through Dec. 31, 2005, because expenditures are being made and interest costs are being incurred during this period while construction is taking place.

LO 4 Describe the accounting problems associated with interest capitalization.

Acquisition and Valuation of PP&E

Step 3 - Compute weighted-average accumulated expenditures.

Date	Actual Expenditures	Capitalization Period	Weighted Average Accumulated Expenditures
Jan. 1	$ 100,000	12/12	$ 100,000
Apr. 30	150,000	8/12	100,000
Nov. 1	300,000	2/12	50,000
Dec. 31	100,000	0/12	-
	$ 650,000		$ 250,000

A company weights the construction expenditures by the amount of time (fraction of a year or accounting period) that it can incur interest cost on the expenditure.

LO 4 Describe the accounting problems associated with interest capitalization.

Acquisition and Valuation of PP&E

Step 4 - Compute the Actual and Avoidable Interest.

Selecting Appropriate Interest Rate:

1. For the portion of weighted-average accumulated expenditures that is less than or equal to any amounts borrowed specifically to finance construction of the assets, **use the interest rate incurred on the specific borrowings**.
2. For the portion of weighted-average accumulated expenditures that is greater than any debt incurred specifically to finance construction of the assets, **use a weighted average of interest rates incurred on all other outstanding debt during the period**.

Acquisition and Valuation of PP&E

Step 4 - Compute the Actual and Avoidable Interest.

Actual Interest

	Debt	Interest Rate	Actual Interest
Specific Debt	$ 200,000	12%	$ 24,000
General Debt	500,000	14%	70,000
	300,000	10%	30,000
	$1,000,000		$ 124,000

Weighted-average interest rate on general debt

$$\frac{\$100,000}{\$800,000} = 12.5\%$$

Avoidable Interest

Accumulated Expenditures	Interest Rate	Avoidable Interest
$ 200,000	12%	$ 24,000
50,000	12.5%	6,250
$ 250,000		$ 30,250

LO 4 Describe the accounting problems associated with interest capitalization.

Acquisition and Valuation of PP&E

Step 5 – Capitalize the lesser of Avoidable interest or Actual interest.

Avoidable interest	**$**	**30,250**
Actual interest		**124,000**

Journal entry to Capitalize Interest:

Equipment	30,250	
Interest expense		30,250

LO 4 Describe the accounting problems associated with interest capitalization.

Valuation

Generally

Companies should record property, plant, and equipment:

- at the fair value of what they give up or
- at the fair value of the asset received,

whichever is more clearly evident.

Valuation

Cash Discounts — whether taken or not — generally considered a reduction in the cost of the asset.

Deferred-Payment Contracts — Assets, purchased through long term credit, are recorded at the present value of the consideration exchanged.

Lump-Sum Purchases — Allocate the total cost among the various assets on the basis of their fair market values.

Issuance of Stock — The market value of the stock issued is a fair indication of the cost of the property acquired.

LO 5 Understand accounting issues related to acquiring and valuing plant assets.

Valuation

Exchanges of Nonmonetary Assets

Ordinarily accounted for on the basis of:

- the fair value of the asset given up or
- the fair value of the asset received,

whichever is clearly more evident.

Companies should recognize immediately any gains or losses on the exchange when the transaction has **commercial substance** (future cash flows change as a result of the transaction).

LO 5 Understand accounting issues related to acquiring and valuing plant assets.

Valuation

Accounting for Exchanges

Illustration 10-10

Type of Exchange	Accounting Guidance
Exchange has commercial substance.	Recognize gains and losses immediately.
Exchange lacks commercial substance—no cash received.	Defer gains; recognize losses immediately.
Exchange lacks commercial substance—cash received.	Recognize partial gain; recognize losses immediately.*

* If cash is 25% or more of the fair value of the exchange, recognize entire gain because earnings process is complete.

LO 5 Understand accounting issues related to acquiring and valuing plant assets.

Valuation

Exchanges - Loss Situation

Companies recognize a **loss immediately** whether the exchange has commercial substance or not.

Rationale: Companies should not value assets at more than their cash equivalent price; if the loss were deferred, assets would be overstated.

Valuation

Exchange – Gain Situation Illustration: Carlos Arruza Company exchanged equipment used in its manufacturing operations plus $3,000 in cash for similar equipment used in the operations of Tony LoBianco Company. The following information pertains to the exchange.

	Arruza	LoBianco
Equipment (cost)	$28,000	$28,000
Accumulated Depreciation	19,000	10,000
Fair value of equipment	15,500	12,500
Cash given up		3,000

Instructions: Prepare the journal entries to record the exchange on the books of both companies.

Valuation

Calculation of Gain or Loss

	Arruza	LoBianco
Fair value of equipment received	$12,500	$15,500
Cash received / paid	3,000	(3,000)
Less: Bookvalue of equipment		
($28,000-19,000)	(9,000)	
($28,000-10,000)		(18,000)
Gain or (Loss) on Exchange	$6,500	($5,500)

When a company receives cash (sometimes referred to as "boot") in an exchange that lacks commercial substance, it may immediately recognize **a portion** of the gain.

Valuation

Has Commercial Substance

Arruza:

Account	Debit	Credit
Equipment	12,500	
Cash	3,000	
Accumulated depreciation	19,000	
Equipment		28,000
Gain on exchange		6,500

LoBianco:

Account	Debit	Credit
Equipment	15,500	
Accumulated depreciation	10,000	
Equipment		28,000
Cash		3,000
Loss on exchange	5,500	

LO 5 Understand accounting issues related to acquiring and valuing plant assets.

Valuation

Lacks Commercial Substance

Arruza:

	Debit	Credit
Equipment (12,500 – 5,242)	7,258	
Cash	3,000	
Accumulated depreciation	19,000	
Equipment		28,000
Gain on exchange		1,258

$$\frac{\text{Cash Received}}{\text{Cash Received + FMV of Assets Received}} \times \text{Total Gain} = \text{Recognized Gain}$$

$$\frac{\$3,000}{\$3,000 + \$12,500} \times \$6,500 = \$1,258$$

Deferred gain = $6,500 – 1,258 = $5,242

LO 5 Understand accounting issues related to acquiring and valuing plant assets.

Valuation

Lacks Commercial Substance

LoBianco (no change):

Equipment	15,500	
Accumulated depreciation	10,000	
Equipment		28,000
Cash		3,000
Loss on exchange	5,500	

Companies recognize a **loss immediately** whether the exchange has commercial substance or not.

Valuation

Summary of Gain and Loss Recognition on Exchanges of Nonmonetary Assets Lacks Commercial Substance

Illustration 10-20

1. Compute the total gain or loss on the transaction. This amount is equal to the difference between the fair value of the asset given up and the book value of the asset given up.
2. If a loss is computed in step 1, always recognize the entire loss.
3. If a gain is computed in step 1,
   (a) and the exchange has commercial substance, recognize the entire gain.
   (b) and the exchange lacks commercial substance,
      (1) and no cash is involved, no gain is recognized.
      (2) and some cash is given, no gain is recognized.
      (3) and some cash is received, the following portion of the gain is recognized:

$$\frac{\text{Cash Received (Boot)}}{\text{Cash Received (Boot)} + \text{Fair Value of Other Assets Received}} \times \text{Total Gain*}$$

*If the amount of cash exchanged is 25% or more, recognize entire gain.

Valuation

Accounting for Contributions

Companies should use:

- the fair value of the asset to establish its value on the books and
- should recognize contributions received as revenues in the period received.

Costs Subsequent to Acquisition

In general, costs incurred to achieve greater future benefits should be capitalized, whereas expenditures that simply maintain a given level of services should be expensed.

To capitalize costs, one of three conditions must be present:

- Useful life of the asset must be increased.
- Quantity of units produced from asset must be increased.
- Quality of units produced must be enhanced.

LO 6 Describe the accounting treatment for costs subsequent to acquisition.

Costs Subsequent to Acquisition

Major Types of Expenditures

- Additions
- Improvements and Replacements
- Rearrangement and Reinstallation
- Repairs

See Illustration 10-21, in the text, for summary of normal accounting treatment for these expenditures.

LO 6 Describe the accounting treatment for costs subsequent to acquisition.

Disposition of Plant Assets

Sale of Plant Assets

BE10-14 Sim City Corporation owns machinery that cost $20,000 when purchased on January 1, 2004. Depreciation has been recorded at a rate of $3,000 per year, resulting in a balance in accumulated depreciation of $9,000 at December 31, 2006. The machinery is sold on September 1, 2007, for $10,500. Prepare journal entries to (a) update depreciation for 2007 and (b) record the sale.

Disposition of Plant Assets

(a) update depreciation for 2007

	Debit	Credit
Depreciation expense ($3,000 x 8/12)	2,000	
Accumulated depreciation		2,000

(b) record the sale

	Debit	Credit
Cash	10,500	
Accumulated depreciation	11,000	
Machinery		20,000
Gain on sale		1,500

LO 7 Describe the accounting treatment for the disposal of property, plant, and equipment.

Disposition of Plant Assets

Involuntary Conversion

Sometimes an asset's service is terminated through some type of **involuntary conversion** such as fire, flood, theft, or condemnation.

Companies report the difference between the amount recovered (e.g., from a condemnation award or insurance recovery), if any, and the asset's book value as a gain or loss.

They treat these gains or losses like any other type of disposition.

Disposition of Plant Assets

Miscellaneous Problems

If a company scraps or abandons an asset without any cash recovery, it recognizes a loss equal to the asset's book value.

If scrap value exists, the gain or loss that occurs is the difference between the asset's scrap value and its book value.

If an asset still can be used even though it is fully depreciated, it may be kept on the books at historical cost less depreciation.

LO 7 Describe the accounting treatment for the disposal of property, plant, and equipment.

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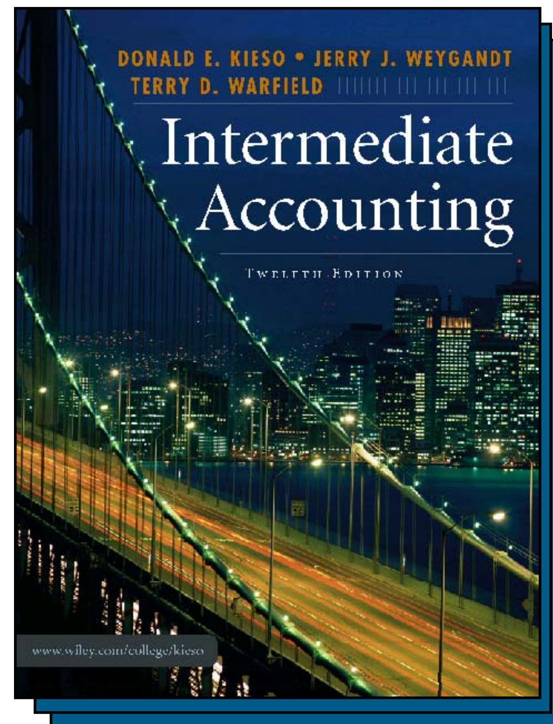
Depreciation, Impairments, and Depletion

Chapter 11

Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Explain the concept of depreciation.
2. Identify the factors involved in the depreciation process.
3. Compare activity, straight-line, and decreasing-charge methods of depreciation.
4. Explain special depreciation methods.
5. Explain the accounting issues related to asset impairment.
6. Explain the accounting procedures for depletion of natural resources.
7. Explain how to report and analyze property, plant, equipment, and natural resources.

Depreciation, Impairments, and Depletion

Depreciation	Impairments	Depletion	Presentation and Analysis
• Factors involved • Methods of depreciation • Special methods • Special issues	• Recognizing impairments • Measuring Impairments • Restoration of loss • Assets to be disposed of	• Establishing a base • Write-off of resource cost • Continuing controversy • Special problems	• Presentation • Analysis

Depreciation - Method of Cost Allocation

Depreciation is the accounting process of allocating the cost of tangible assets to expense in a systematic and rational manner to those periods expected to benefit from the use of the asset.

Allocating costs of long-term assets:

- Fixed assets = Depreciation expense
- Intangibles = Amortization expense
- Natural resources = Depletion expense

LO 1 Explain the concept of depreciation.

Depreciation - Method of Cost Allocation

Factors Involved in the Depreciation Process

Three basic questions:

(1) What depreciable base is to be used?

(2) What is the asset's useful life?

(3) What method of cost allocation is best?

LO 2 Identify the factors involved in the depreciation process.

Depreciation - Method of Cost Allocation

Methods of Depreciation

The profession requires the method employed be "systematic and rational." Examples include:

(1) Activity method (units of use or production).

(2) Straight-line method.

(3) Sum-of-the-years'-digits.

(4) Declining-balance method.

(3)–(4): Accelerated methods

(5) Group and composite methods.

(6) Hybrid or combination methods.

(5)–(6): Special methods

LO 3 Compare activity, straight-line, and decreasing-charge methods of depreciation.

Depreciation - Method of Cost Allocation

Exercise (Depreciation Computations—Four Methods) Robert Parish Corporation purchased a new machine for its assembly process on September 30, 2007. The cost of this machine was $117,900. The company estimated that the machine would have a salvage value of $12,900 at the end of its service life. Its life is estimated at 5 years and its working hours are estimated at 1,000 hours. Year-end is December 31.

Instructions: Compute the depreciation expense under the following methods.

(a) Straight-line depreciation.

(b) Activity method.

(c) Sum-of-the-years'-digits.

(d) Double-declining balance.

LO 3 Compare activity, straight-line, and decreasing-charge methods of depreciation.

Depreciation - Method of Cost Allocation

Exercise (Straight-line Method)

Year	Depreciable Base		Years		Annual Expense		Partial Year		Current Year Expense	Accum. Deprec.
2007	$ 105,000	/	5	=	$ 21,000	x	3/12	=	$ 5,250	$ 5,250
2008	105,000	/	5	=	21,000				21,000	26,250
2009	105,000	/	5	=	21,000				21,000	47,250
2010	105,000	/	5	=	21,000				21,000	68,250
2011	105,000	/	5	=	21,000				21,000	89,250
2012	105,000	/	5	=	21,000	x	9/12	=	15,750	105,000
									$ 105,000	

Journal entry:

		Debit	Credit
2007	Depreciation expense	5,250	
	Accumultated depreciation		5,250

LO 3 Compare activity, straight-line, and decreasing-charge methods of depreciation.

Depreciation – Method of Cost Allocation

Exercise (Activity Method)

($105,000 / 1,000 hours = $105 per hour)

Year	(Given) Hours Used		Rate per Hours		Annual Expense	Partial Year	Current Year Expense	Accum. Deprec.
2007	200	x	$105	=	$ 21,000		$ 21,000	$ 21,000
2008	150	x	105	=	15,750		15,750	36,750
2009	250	x	105	=	26,250		26,250	63,000
2010	300	x	105	=	31,500		31,500	94,500
2011	100	x	105	=	10,500		10,500	105,000
	1,000						$ 105,000	

Journal entry:

2007	Depreciation expense	21,000	
	Accumultated depreciation		21,000

LO 3 Compare activity, straight-line, and decreasing-charge methods of depreciation.

Depreciation - Method of Cost Allocation

Exercise (Sum-of-the-years'-digits Method)

Year	Depreciable Base		Years		Annual Expense		Partial Year	Current Year Expense	Accum. Deprec.
2007	$ 105,000	x	5/15	=	$ 35,000	x	3/12	$ 8,750	$ 8,750
2008	105,000	x	4.75/15	=	33,250			33,250	42,000
2009	105,000	x	3.75/15	=	26,250			26,250	68,250
2010	105,000	x	2.75/15	=	19,250			19,250	87,500
2011	105,000	x	1.75/15	=	12,250			12,250	99,750
2012	105,000	x	.75/15	=	5,250			5,250	105,000
								$ 105,000	

Journal entry:

		Debit	Credit
2007	Depreciation expense	8,750	
	Accumultated depreciation		8,750

LO 3 Compare activity, straight-line, and decreasing-charge methods of depreciation.

Depreciation - Method of Cost Allocation

Exercise (Double-Declining Balance Method)

Year	Depreciable Base		Rate per Year		Annual Expense		Partial Year		Current Year Expense	Accum. Deprec.
2007	$ 117,900	x	40%	=	$ 47,160	x	3/12	=	$ 11,790	$ 11,790
2008	106,110	x	40%	=	42,444				42,444	54,234
2009	63,666	x	40%	=	25,466				25,466	79,700
2010	38,200	x	40%	=	15,280				15,280	94,980
2011	22,920	x	40%	=	9,168				9,168	104,148
2012	13,752	x	40%	=	5,501		Plug	→	852	105,000
									$ 105,000	

Journal entry:

2007	Depreciation expense	11,790	
	Accumultated depreciation		11,790

LO 3 Compare activity, straight-line, and decreasing-charge methods of depreciation.

Depreciation - Method of Cost Allocation

Special Depreciation Methods

The choice of method depends on the nature of the assets involved:

- **Group method** used when the assets are similar in nature and have approximately the same useful lives.
- **Composite approach** used when the assets are dissimilar and have different lives.
- Companies are also free to develop tailor-made depreciation methods, provided the method results in the allocation of an asset's cost in a systematic and rational manner (Hybrid or Combination Methods).

Depreciation - Method of Cost Allocation

Special Depreciation Issues

(1) How should companies compute depreciation for partial periods?

- Companies normally compute depreciation on the basis of the nearest full month.

(2) Does depreciation provide for the replacement of assets?

- Funds for the replacement of the assets come from the revenues

(3) How should companies handle revisions in depreciation rates?

LO 4 Explain special depreciation methods.

Depreciation - Method of Cost Allocation

Changes in Depreciation Rate

- Accounted for in the period of change and future periods (Change in Estimate)
- Not handled retrospectively
- Not considered errors or extraordinary items

Change in Estimate Example

Arcadia HS, purchased equipment for $510,000 which was estimated to have a useful life of 10 years with a salvage value of $10,000 at the end of that time. Depreciation has been recorded for 7 years on a straight-line basis. In 2005 (year 8), it is determined that the total estimated life should be 15 years with a salvage value of $5,000 at the end of that time.

Questions:

- What is the journal entry to correct the prior years' depreciation?

No Entry Required

- Calculate the depreciation expense for 2005.

LO 4 Explain special depreciation methods.

Change in Estimate Example

After 7 years

Equipment cost	$510,000
Salvage value	- 10,000
Depreciable base	500,000
Useful life (original)	10 years
Annual depreciation	$ 50,000

$ 50,000 x 7 years = $350,000

First, establish NBV at date of change in estimate.

Balance Sheet (Dec. 31, 2004)

Fixed Assets:

Equipment	$510,000
Accumulated depreciation	350,000
Net book value (NBV)	$160,000

LO 4 Explain special depreciation methods.

Change in Estimate Example

After 7 years

Net book value	$160,000
Salvage value (new)	5,000
Depreciable base	155,000
Useful life remaining	8 years
Annual depreciation	$ 19,375

Depreciation Expense calculation for 2005.

Journal entry for 2005

Depreciation expense	19,375	
Accumulated depreciation		19,375

Impairments

When the carrying amount of an asset is not recoverable, a company records a write-off referred to as an **impairment**.

Events leading to an impairment:

a. Decrease in the market value of an asset.

b. Change in the manner in which an asset is used.

c. Adverse change in legal factors or in the business climate.

d. An accumulation of costs in excess of the amount originally expected to acquire or construct an asset.

e. A projection or forecast that demonstrates continuing losses associated with an asset.

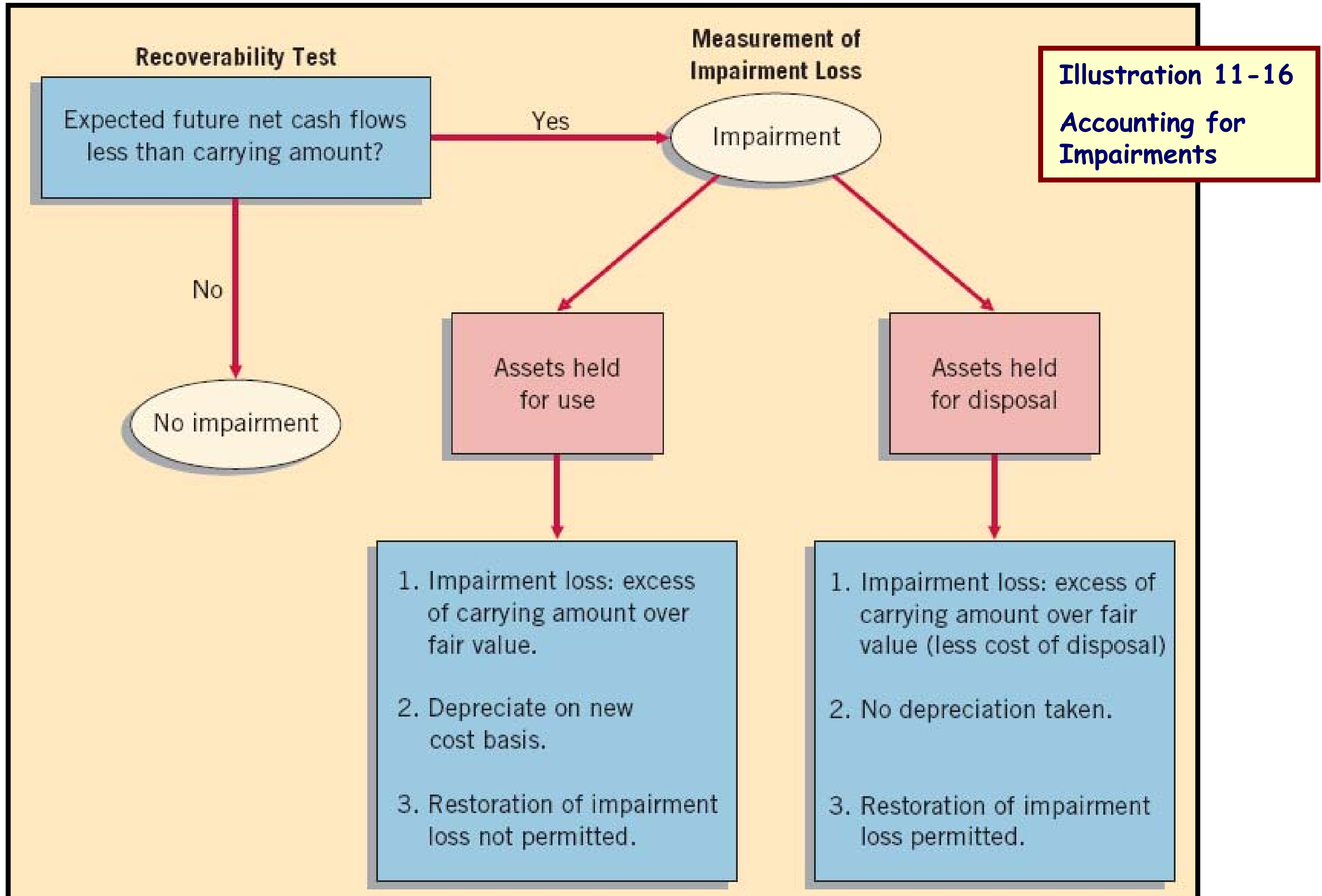
Impairments

Measuring Impairments

1. Review events for possible impairment.
2. If the review indicates impairment, apply the recoverability test. If the sum of the expected future net cash flows from the long-lived asset is less than the carrying amount of the asset, an impairment has occurred.
3. Assuming an impairment, the impairment loss is the amount by which the carrying amount of the asset exceeds the fair value of the asset. The fair value is the market value or the present value of expected future net cash flows.

LO 5 Explain the accounting issues related to asset impairment.

Impairments



LO 5 Explain the accounting issues related to asset impairment.

Impairments

E11-16 (Impairment) Presented below is information related to equipment owned by Suarez Company at December 31, 2007. Assume that Suarez will continue to use this asset in the future. As of December 31, 2007, the equipment has a remaining useful life of 4 years.

Cost	$	9,000,000
Accumulated depreciation to date		1,000,000
Expected future net cash flows		7,000,000
Fair value		4,800,000

Instructions:

(a) Prepare the journal entry (if any) to record the impairment of the asset at December 31, 2007.

(b) Prepare the journal entry to record depreciation expense for 2008.

(c) The fair value of the equipment at December 31, 2008, is $5,100,000. Prepare the journal entry (if any) necessary to record this increase in fair value.

Impairments

(a).

Cost	$9,000,000
Accumulated depreciation	1,000,000
Carrying amount	8,000,000
Fair value	4,800,000
Loss on impairment	$3,200,000

12/31/07

Loss on impairment	3,200,000	
Accumulated depreciation		3,200,000

LO 5 Explain the accounting issues related to asset impairment.

Impairments

(b).		
	Net carrying amount	$4,800,000
	Useful life	4 years
	Depreciation per year	$1,200,000

12/31/08

	Debit	Credit
Depreciation expense	1,200,000	
Accumulated depreciation		1,200,000

(c). Restoration of any impairment loss is not permitted.

Depletion

Natural resources, often called wasting assets, include petroleum, minerals, and timber.

They have two main features:

1. complete removal (consumption) of the asset, and
2. replacement of the asset only by an act of nature.

Depletion is the process of allocating the cost of natural resources.

LO 6 Explain the accounting procedures for depletion of natural resources.

Depletion

Establishing a Depletion Base

Computation of the depletion base involves four factors:

(1) Acquisition cost of the deposit,

(2) Exploration costs,

(3) Development costs, and

(4) Restoration costs.

LO 6 Explain the accounting procedures for depletion of natural resources.

Depletion

Write-off of Resource Cost

Normally, companies compute depletion on a **units-of-production method** (an activity approach). Thus, depletion is a function of the number of units extracted during the period.

Calculation:

$$\frac{\text{Total cost} - \text{Salvage value}}{\text{Total estimated units available}} = \text{Depletion cost per unit}$$

$$\text{Units extracted} \times \text{Cost per unit} = \text{Depletion}$$

LO 6 Explain the accounting procedures for depletion of natural resources.

Depletion

E11-19 (Depletion Computations—Timber) Stanislaw Timber Company owns 9,000 acres of timberland purchased in 1996 at a cost of $1,400 per acre. At the time of purchase the land without the timber was valued at $400 per acre. In 1997, Stanislaw built fire lanes and roads, with a life of 30 years, at a cost of $84,000. Every year Stanislaw sprays to prevent disease at a cost of $3,000 per year and spends $7,000 to maintain the fire lanes and roads. During 1998, Stanislaw selectively logged and sold 700,000 board feet of timber, of the estimated 3,500,000 board feet. In 1999, Stanislaw planted new seedlings to replace the trees cut at a cost of $100,000.

Instructions:

Determine the depreciation expense and the cost of timber sold related to depletion for 1998.

LO 6 Explain the accounting procedures for depletion of natural resources.

Depletion

E11-19 (Depletion Computations—Timber)

Depreciation Expense:

Fire lanes and roads	$ 84,000
Useful life	30
Depreciation expense per year	$ 2,800

LO 6 Explain the accounting procedures for depletion of natural resources.

Depletion

E11-19 (Depletion Computations—Timber)

Depletion:

Cost of timberland per acre	$	1,400
Cost of land per acre		(400)
Cost of timber only per acre	$	1,000
Total acres		9,000
Value of timber	$	9,000,000
Estimated total board feet		3,500,000
Cost per board foot	$	2.57
Board feet of timber sold		700,000
Cost of timber sold related to depletion	$	1,800,000

LO 6 Explain the accounting procedures for depletion of natural resources.

Depletion

Continuing Controversy

- Oil and Gas Industry:
- Full cost concept
- Successful efforts concept

Special Problems in Depletion Accounting

1. Difficulty of estimating recoverable reserves.
2. Problems of discovery value.
3. Tax aspects of natural resources.
4. Accounting for liquidating dividends.

LO 6 Explain the accounting procedures for depletion of natural resources.

Presentation and Analysis

Presentation of Property, Plant, Equipment, and Natural Resources

Depreciating assets, use Accumulated Depreciation.

Depleting assets may include use of Accumulated Depletion account, or the direct reduction of asset.

Disclosures

- Basis of valuation (cost)
- Pledges, liens, and other commitments
- Depreciation expense for the period.
- Balances of major classes of depreciable assets.
- Accumulated depreciation.
- A description of the depreciation methods used.

LO 7 Explain how to report and analyze property, plant, equipment, and natural resources.

Presentation and Analysis

Rate of Return on Assets measures a firm's success in using assets to generate earnings.

$$\text{ROA} = \frac{\text{Net Income}}{\text{Average Total Assets}}$$

$$6.56\% = \frac{\$56{,}200}{(\$1{,}030{,}400 + 682{,}400) / 2}$$

LO 7 Explain how to report and analyze property, plant, equipment, and natural resources.

Presentation and Analysis

The analyst obtains further insight into the behavior of ROA by **disaggregating** it into components of profit margin on sales and asset turnover as follows:

Rate of Return on Assets	=	Profit Margin on Sales	x	Asset Turnover

$$\frac{\text{Net Income}}{\text{Average Total Assets}} = \frac{\text{Net Income}}{\cancel{\text{Sales}}} \times \frac{\cancel{\text{Sales}}}{\text{Average Total Assets}}$$

LO 7 Explain how to report and analyze property, plant, equipment, and natural resources.

Presentation and Analysis

The analyst obtains further insight into the behavior of ROA by **disaggregating** it into components of profit margin on sales and asset turnover as follows:

Rate of Return on Assets	=	Profit Margin on Sales	x	Asset Turnover

$$\frac{\$56{,}200}{(\$1{,}030{,}400 + 682{,}400) / 2} = \frac{\$56{,}200}{\$300{,}000} \times \frac{\$300{,}000}{(\$1{,}030{,}400 + 682{,}400) / 2}$$

6.56%	=	18.73%	x	.3503

LO 7 Explain how to report and analyze property, plant, equipment, and natural resources.

Presentation and Analysis

The **profit margin on sales** is a measure of the ability of a firm to generate operating income from a particular level of sales.

Rate of Return on Assets	=	Profit Margin on Sales	x	Asset Turnover

$$\frac{\text{Net Income}}{\text{Average Total Assets}} = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Average Total Assets}}$$

6.56%	=	18.73%	x	.3503

LO 7 Explain how to report and analyze property, plant, equipment, and natural resources.

Presentation and Analysis

The **profit margin on sales** is a measure of the ability of a firm to generate operating income from a particular level of sales.

Rate of Return on Assets	=	Profit Margin on Sales	x	Asset Turnover

$$\frac{\text{Net Income}}{\text{Average Total Assets}} = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Average Total Assets}}$$

Differences in the profit margin on sales (from year to year) can be studied by analyzing individual revenues and expenses.

Presentation and Analysis

The **assets turnover** is a measure of a firm's ability to generate sales from a particular investment in assets.

Rate of Return on Assets	=	Profit Margin on Sales	x	Asset Turnover

$$\frac{\text{Net Income}}{\text{Average Total Assets}} = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Average Total Assets}}$$

6.56%	=	18.73%	x	.3503

LO 7 Explain how to report and analyze property, plant, equipment, and natural resources.

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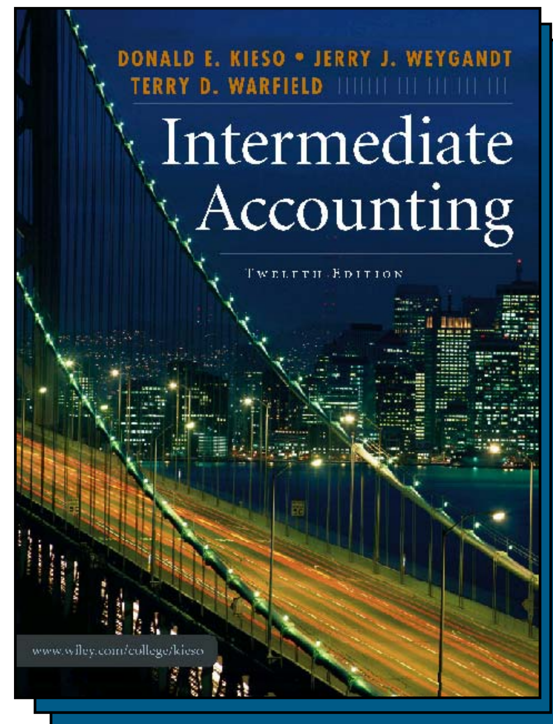
Intangible Assets

Chapter 12

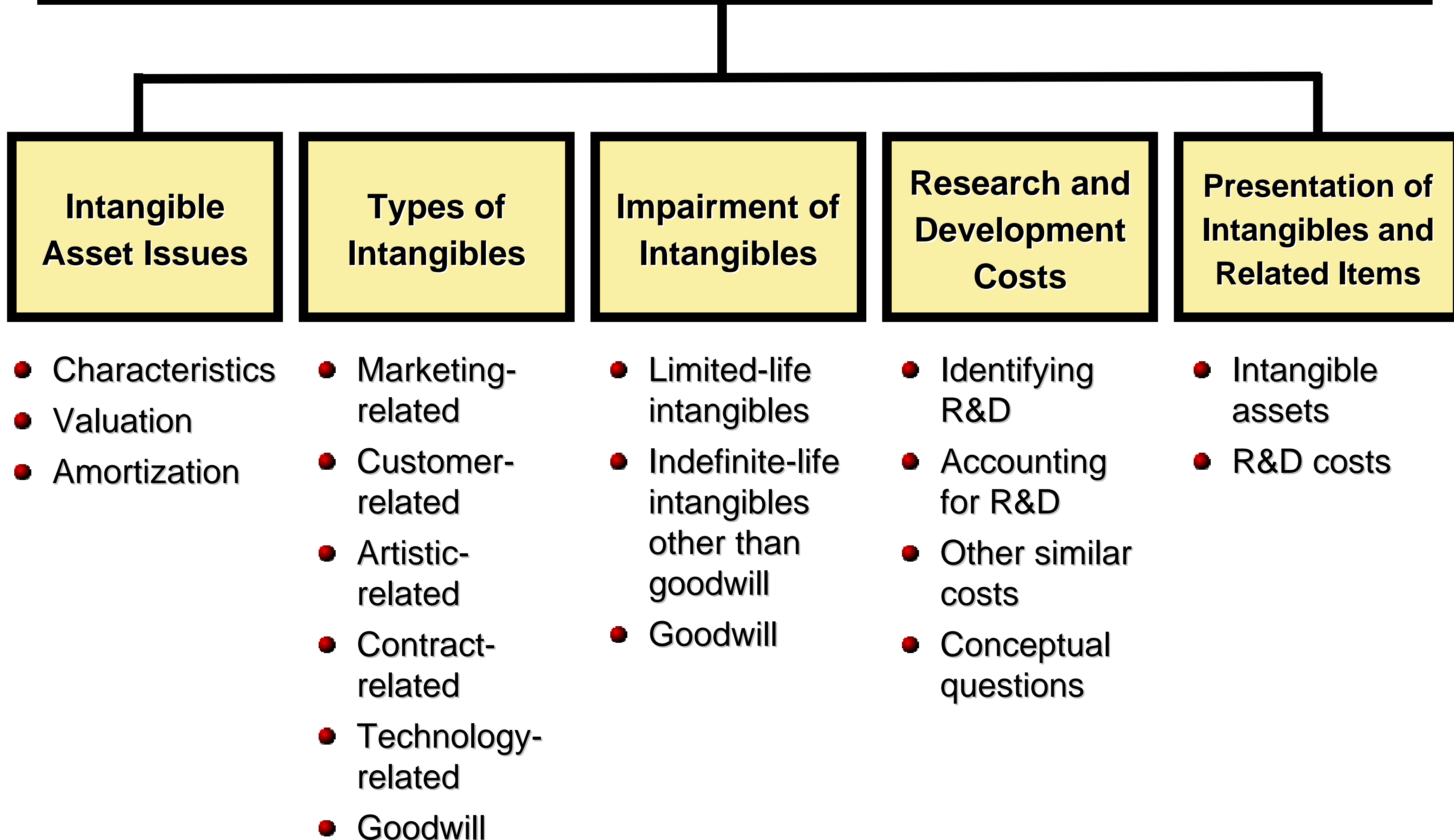
Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Describe the characteristics of intangible assets.
2. Identify the costs to include in the initial valuation of intangible assets.
3. Explain the procedure for amortizing intangible assets.
4. Describe the types of intangible assets.
5. Explain the conceptual issues related to goodwill.
6. Describe the accounting procedures for recording goodwill.
7. Explain the accounting issues related to intangible-asset impairments.
8. Identify the conceptual issues related to research and development costs.
9. Describe the accounting for research and development and similar costs.
10. Indicate the presentation of intangible assets and related items.


Intangible Assets
Intangible Asset Issues
Types of Intangibles
Impairment of Intangibles
Research and Development Costs
Presentation of Intangibles and Related Items
Characteristics
Valuation
Amortization
Marketing-related
Customer-related
Artistic-related
Contract-related
Technology-related
Goodwill
Limited-life intangibles
Indefinite-life intangibles other than goodwill
Goodwill
Identifying R&D
Accounting for R&D
Other similar costs
Conceptual questions
Intangible assets
R&D costs

Intangible Asset Issues

Characteristics

Two Main Characteristics:

(1) They lack physical existence.

(2) They are not financial instruments.

Normally classified as long-term asset.

Common types of intangibles:

- Patents
- Copyrights
- Franchises or licenses
- Trademarks or trade names
- Goodwill

LO 1 Describe the characteristics of intangible assets.

Intangible Asset Issues

Valuation

Purchased Intangibles:

- Recorded at cost.
- Includes all costs necessary to make the intangible asset ready for its intended use.

Internally Created Intangibles:

- Generally expensed.
- Only capitalize direct costs incurred in developing the intangible, such as legal costs.

LO 2 Identify the costs to include in the initial valuation of intangible assets.

Intangible Asset Issues

Amortization of Intangibles

Limited-Life Intangibles:

- Amortize to expense.
- Credit asset account or accumulated amortization.

Indefinite-Life Intangibles:

- No foreseeable limit on time the asset is expected to provide cash flows.
- No amortization.

LO 3 Explain the procedure for amortizing intangible assets.

Accounting for Intangibles

Illustration 12-1

Type of Intangible	Manner Acquired: Purchased	Manner Acquired: Internally Created	Amortization	Impairment Test
Limited-life intangibles	Capitalize	Expense*	Over useful life	Recoverability test and then fair value test
Indefinite-life intangibles	Capitalize	Expense*	Do not amortize	Fair value test

*Except for direct costs, such as legal costs.

LO 3 Explain the procedure for amortizing intangible assets.

Types of Intangibles

Six Major Categories:

(1) Marketing-related.

(2) Customer-related.

(3) Artistic-related.

(4) Contract-related.

(5) Technology-related.

(6) Goodwill.

LO 4 Describe the types of intangible assets.

Types of Intangibles

Marketing-Related Intangible Assets

- Examples are:
  - trademarks or trade names, newspaper mastheads, Internet domain names, and noncompetition agreements.
- Trademark or trade name has legal protection for indefinite number of 10 year renewal periods.
- Capitalize acquisition costs.
- No amortization.

LO 4 Describe the types of intangible assets.

Types of Intangibles

Customer-Related Intangible Assets

- Examples are:
  - customer lists, order or production backlogs, and both contractual and noncontractual customer relationships.
- Capitalize acquisition costs.
- Amortized to expense over useful life.

Types of Intangibles

Artistic-Related Intangible Assets

- Examples are:
  - plays, literary works, musical works, pictures, photographs, and video and audiovisual material.
- Copyright is granted for the life of the creator plus 70 years.
- Capitalize acquisition costs.
- Amortized to expense over useful life.

LO 4 Describe the types of intangible assets.

Types of Intangibles

Contract-Related Intangible Assets

- Examples are:
  - franchise and licensing agreements, construction permits, broadcast rights, and service or supply contracts.
- Franchise (or license) with a limited life should be amortized to expense over the life of the franchise.
- Franchise with an indefinite life should be carried at cost and not amortized.

Types of Intangibles

Technology-Related Intangible Assets

- Examples are:
  - patented technology and trade secrets granted by the U.S. Patent and Trademark Office.
- Patent gives the holder exclusive use for a period of 20 years.
- Capitalize costs of purchasing a patent.
- Expense any R&D costs in developing a patent.
- Legal fees incurred successfully defending a patent are capitalized to Patent account.

Types of Intangibles

Goodwill

Only recorded when an entire business is purchased because goodwill cannot be separated from the business as a whole.

Goodwill is recorded as the excess of ...

purchase price over the FMV of the identifiable net assets acquired.

Internally created goodwill should not be capitalized.

Recording Goodwill

Example: Global Corporation purchased the net assets of Local Company for $300,000 on December 31, 2007. The balance sheet of Local Company just prior to acquisition is:

Assets	Cost	FMV
Cash	$ 15,000	$ 15,000
Receivables	10,000	10,000
Inventories	50,000	70,000
Equipment	80,000	130,000
Total	$ 155,000	$ 225,000
Liabilities and Equities		
Accounts payable	$ 25,000	$ 25,000
Common stock	100,000	
Retained earnings	30,000	
Total	$ 155,000	$ 25,000

FMV of Net Assets = $200,000

LO 6 Describe the accounting procedures for recording goodwill.

Recording Goodwill

Example: Global Corporation purchased the net assets of Local Company for $300,000 on December 31, 2007. The balance sheet of Local Company just prior to acquisition is:

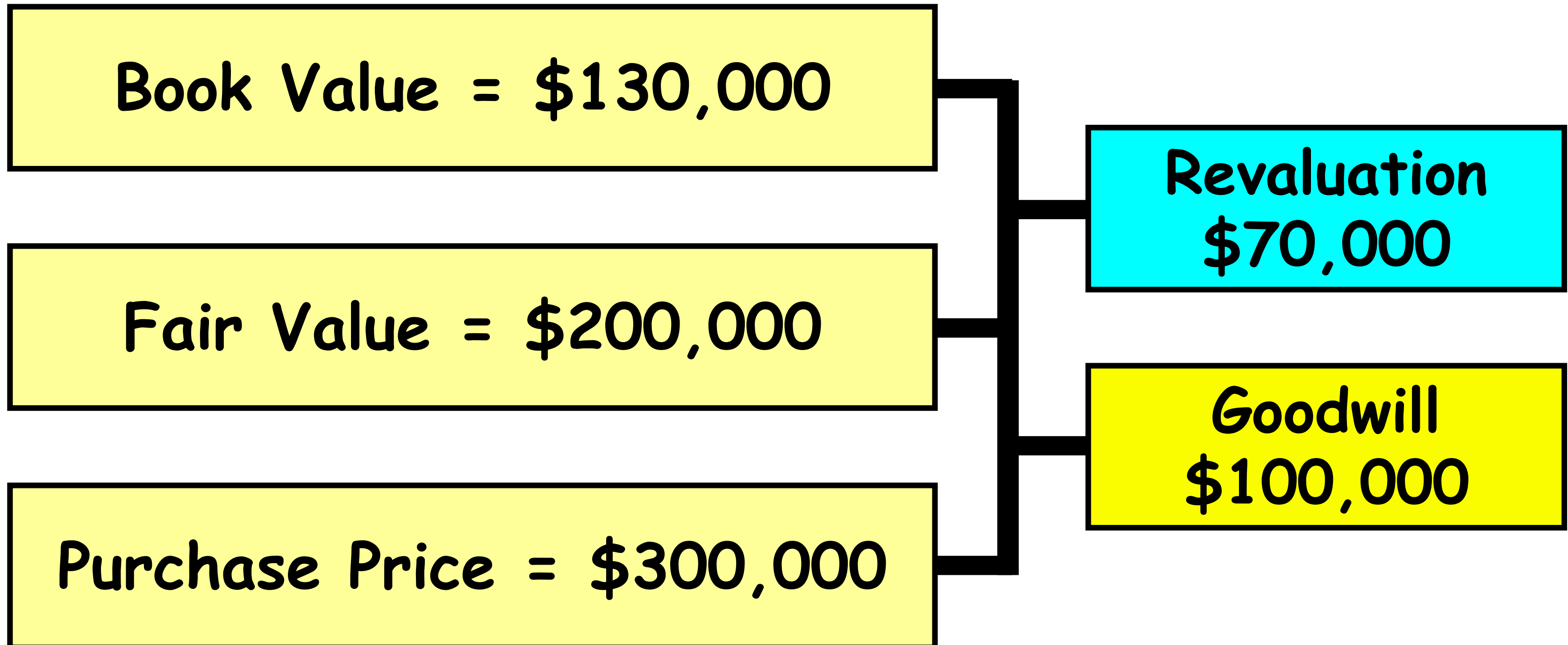
Calculation of Goodwill:

Book value of net assets of Local:	
Assets	$ 155,000
Liabilities	(25,000)
Book value of net assets	130,000
Under (Over) valued asset or liabilities:	
Inventory	20,000
Equipment	50,000
FMV of net assets of Local	**200,000**
Price paid for Local	300,000
Goodwill	$ 100,000

LO 6 Describe the accounting procedures for recording goodwill.

Recording Goodwill

Example: Global Corporation purchased the net assets of Local Company for $300,000 on December 31, 2007. The balance sheet of Local Company just prior to acquisition is:



LO 6 Describe the accounting procedures for recording goodwill.

Recording Goodwill

Example: Global Corporation purchased the net assets of Local Company for $300,000 on December 31, 2007. The balance sheet of Local Company just prior to acquisition is:

Journal entry recorded by Global:

Account	Debit	Credit
Cash	15,000	
Receivables	10,000	
Inventory	70,000	
Equipment	130,000	
Goodwill	100,000	
Accounts payable		25,000
Cash		300,000

LO 6 Describe the accounting procedures for recording goodwill.

Goodwill

Goodwill Write-off

- Goodwill considered to have an indefinite life.
- Should not be amortized.
- Only adjust carrying value when goodwill is impaired.

Goodwill

Negative Goodwill – Bargain Purchase

- Purchase price less than the fair value of net assets acquired (bargain purchase).
- Results in a credit, referred to as negative goodwill.
  - Negative goodwill must be allocated against long-term assets acquired, any remaining is accounted for as an extraordinary gain.

Impairment of Intangible Assets

Impairment of Limited-Life Intangibles

Same as impairment for long-lived assets in Chapter 11.

1. If the sum of the expected future net cash flows is **less than** the carrying amount of the asset, an impairment has occurred (recoverability test).
2. The impairment loss is the amount by which the carrying amount of the asset exceeds the fair value of the asset (fair value test).

   The loss is reported as part of income from continuing operations, "Other expenses and losses" section.

LO 7 Explain the accounting issues related to intangible-asset impairments.

Impairment of Intangible Assets

E12-14 (Copyright Impairment) Presented below is information related to copyrights owned by Walter de la Mare Company at December 31, 2007.

Cost	$ 8,600,000
Carrying amount	4,300,000
Expected future net cash flows	4,000,000
Fair value	3,200,000

The copyright has a remaining useful life of 10 years.

(a) Prepare the journal entry (if any) to record the impairment of the asset at December 31, 2007.

(b) Prepare the journal entry to record amortization expense for 2008 related to the copyrights.

LO 7 Explain the accounting issues related to intangible-asset impairments.

Impairment of Intangible Assets

Recoverability test: If the sum of the expected future net cash flows is **less than** the carrying amount of the asset, an impairment has occurred.

Expected future cash flow	$	4,000,000
Carrying value		4,300,000
	$	(300,000)

Asset is Impaired

Impairment of Intangible Assets

(a) Prepare the journal entry (if any) to record the impairment of the asset at December 31, 2007.

Loss on impairment	1,100,000	
Copyrights		1,100,000

Fair value test:

Carrying amount	$	4,300,000
Fair value		3,200,000
Loss on impairment	$	(1,100,000)

LO 7 Explain the accounting issues related to intangible-asset impairments.

Impairment of Intangible Assets

(b) Prepare the journal entry to record amortization expense for 2008 related to the copyrights.

Amortization expense	320,000	
Copyrights		320,000

Carrying amount	$	3,200,000
Useful life		÷ 10 years
Amortization per year	$	320,000

LO 7 Explain the accounting issues related to intangible-asset impairments.

Impairment of Intangible Assets

Impairment of Indefinite-Life Intangibles Other than Goodwill

- Should be tested for impairment at least annually.
- Impairment test is a **fair value test**.
  - If the fair value of asset is less than the carrying amount, an impairment loss is recognized for the difference.
  - Recoverability test is not used.

Impairment of Intangible Assets

Impairment of Goodwill

Two Step Process:

Step 1: If fair value is less than the carrying amount of the net assets (including goodwill), then perform a second step to determine possible impairment.

Step 2: Determine the fair value of the goodwill (implied value of goodwill) and compare to carrying amount.

LO 7 Explain the accounting issues related to intangible-asset impairments.

Impairment of Intangible Assets

E12-15 (Goodwill Impairment) Presented below is net asset information related to the Carlos Division of Santana, Inc. as of December 31, 2007 (in millions):

Cash	$	50
Receivables		200
Property, plant, and equipment, net		2,600
Goodwill		200
Less: Notes payable		(2,700)
Net assets	$	350

Management estimated its future net cash flows from the division to be $400 million. Management has also received an offer to purchase the division for $335 million. All identifiable assets' and liabilities' book and fair value amounts are the same.

Impairment of Intangible Assets

E12-15 Instructions

(a) Prepare the journal entry (if any) to record the impairment at December 31, 2007.

Step 1: The fair value of the reporting unit is below its carrying value. Therefore, an impairment has occurred.

Step 2:

	(in millions)
Fair value	$ 335
Carrying amount, net of goodwill	150
Implied goodwill	185
Carrying value of goodwill	200
Loss on impairment	$ (15)

Loss on impairment	15,000,000	
Goodwill		15,000,000

LO 7 Explain the accounting issues related to intangible-asset impairments.

E12-15 Instructions

(b) At December 31, 2008, it is estimated that the division's fair value increased to $345 million. Prepare the journal entry (if any) to record this increase in fair value.

- No entry necessary.
- Adjusted carrying amount of the goodwill is its new accounting basis.
- Subsequent reversal of recognized impairment losses is not permitted under SFAS No. 142.

Impairment of Intangible Assets

Summary of Impairment Tests

Illustration 12-11

Type of Intangible Asset	Impairment Test
Limited life	Recoverability test, then fair value test
Indefinite life other than goodwill	Fair value test
Goodwill	Fair value test on reporting unit, then fair value test on implied goodwill

LO 7 Explain the accounting issues related to intangible-asset impairments.

Research and Development Costs

Frequently results in something that a company patents or copyrights such as:

- new product,
- process,
- idea,
- formula,
- composition, or
- literary work.

Because of difficulties related to identifying costs with particular activities and determining the future benefits, all R & D costs are **expensed when incurred**.

LO 8 Identify the conceptual issues related to research and development costs.

Research and Development Costs

Identifying R & D Activities

Illustration 12-13

Research Activities	Examples
Planned search or critical investigation aimed at discovery of new knowledge.	Laboratory research aimed at discovery of new knowledge; searching for applications of new research findings.
Development Activities	**Examples**
Translation of research findings or other knowledge into a plan or design for a new product or process or for a significant improvement to an existing product or process whether intended for sale or use.	Conceptual formulation and design of possible product or process alternatives; construction of prototypes and operation of pilot plants.

LO 8 Identify the conceptual issues related to research and development costs.

Research and Development Costs

Accounting for R & D Activities

Costs Associated with R&D Activities:

- Materials, Equipment, and Facilities
- Personnel
- Purchased Intangibles
- Contract Services
- Indirect Costs

LO 9 Describe the accounting for research and development and similar costs.

Research and Development Costs

E12-1 Indicate how items on the list below would generally be reported in the financial statements.

Item	Classification
1. Investment in a subsidiary company	1. Long-term investments
2. Timberland	2. PP&E
3. Cost of engineering activity required to advance the design of a product to the manufacturing stage.	3. R & D expense
4. Lease prepayment	4. Prepaid rent
5. Cost of equipment obtained under a capital lease.	5. PP&E
6. Cost of searching for applications of new research findings.	6. R & D expense

LO 9 Describe the accounting for research and development and similar costs.

Research and Development Costs

E12-1 Indicate how items on the list below would generally be reported in the financial statements.

Item	Classification
7. Cost incurred in the formation of a corporation.	7. Expense
8. Operating losses incurred in the start-up of a business.	8. Operating loss
9. Training costs incurred in start-up of new operation.	9. Expense
10. Purchase cost of a franchise.	10. Intangible
11. Goodwill generated internally.	11. Not recorded
12. Cost of testing in search of product alternatives.	12. R & D expense

LO 9 Describe the accounting for research and development and similar costs.

Research and Development Costs

E12-1 Indicate how items on the list below would generally be reported in the financial statements.

Item	Classification
13. Goodwill acquired in the purchase of a business.	13. Intangible
14. Cost of developing a patent.	14. R & D Expense
15. Cost of purchasing a patent from an inventor.	15. Intangible
16. Legal costs incurred in securing a patent.	16. Intangible
17. Unrecovered costs of a successful legal suit to protect the patent.	17. Intangible

LO 9 Describe the accounting for research and development and similar costs.

Research and Development Costs

E12-1 Indicate how items on the list below would generally be reported in the financial statements.

Item	Classification
18. Cost of conceptual formulation of possible product alternatives.	18. R & D Expense
19. Cost of purchasing a copyright.	19. Intangible
20. Research and development costs.	20. R & D Expense
21. Cost of developing a trademark.	21. Expensed
22. Cost of purchasing a trademark.	22. Intangible

LO 9 Describe the accounting for research and development and similar costs.

Research and Development Costs

Other Costs Similar to R & D Costs

- Start-up costs for a new operation.
- Initial operating losses.
- Advertising costs.
- Computer software costs.

LO 9 Describe the accounting for research and development and similar costs.

Research and Development Costs

E12-17 Compute the amount to be reported as research and development expense.

$280,000 / 5 = $56,000

		R&D Expense
Cost of equipment acquired that will have alternative uses in future R&D projects over the next 5 years.	$280,000	$56,000
Materials consumed in R&D projects	59,000	59,000
Consulting fees paid to outsiders for R&D projects	100,000	100,000
Personnel costs of persons involved in R&D projects	128,000	128,000
Indirect costs reasonably allocable to R&D projects	50,000	50,000
Materials purchased for future R&D projects	34,000	0
		$393,000

Presentations of Intangibles

Balance sheet

- Intangible assets shown as a separate item.
- Contra accounts normally not shown.

Income statement

- Report amortization expense and impairment losses in continuing operations.
- Total R&D costs charged to expense must be disclosed.

LO 10 Indicate the presentation of intangible assets and related items.

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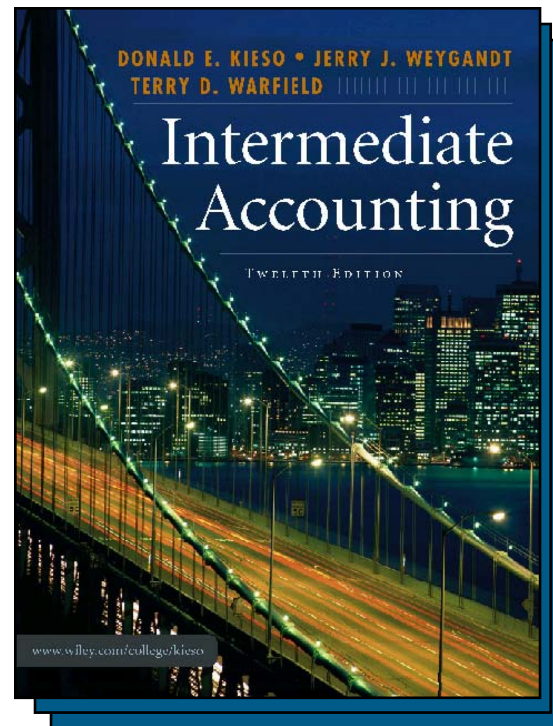
Current Liabilities and Contingencies

Chapter 13

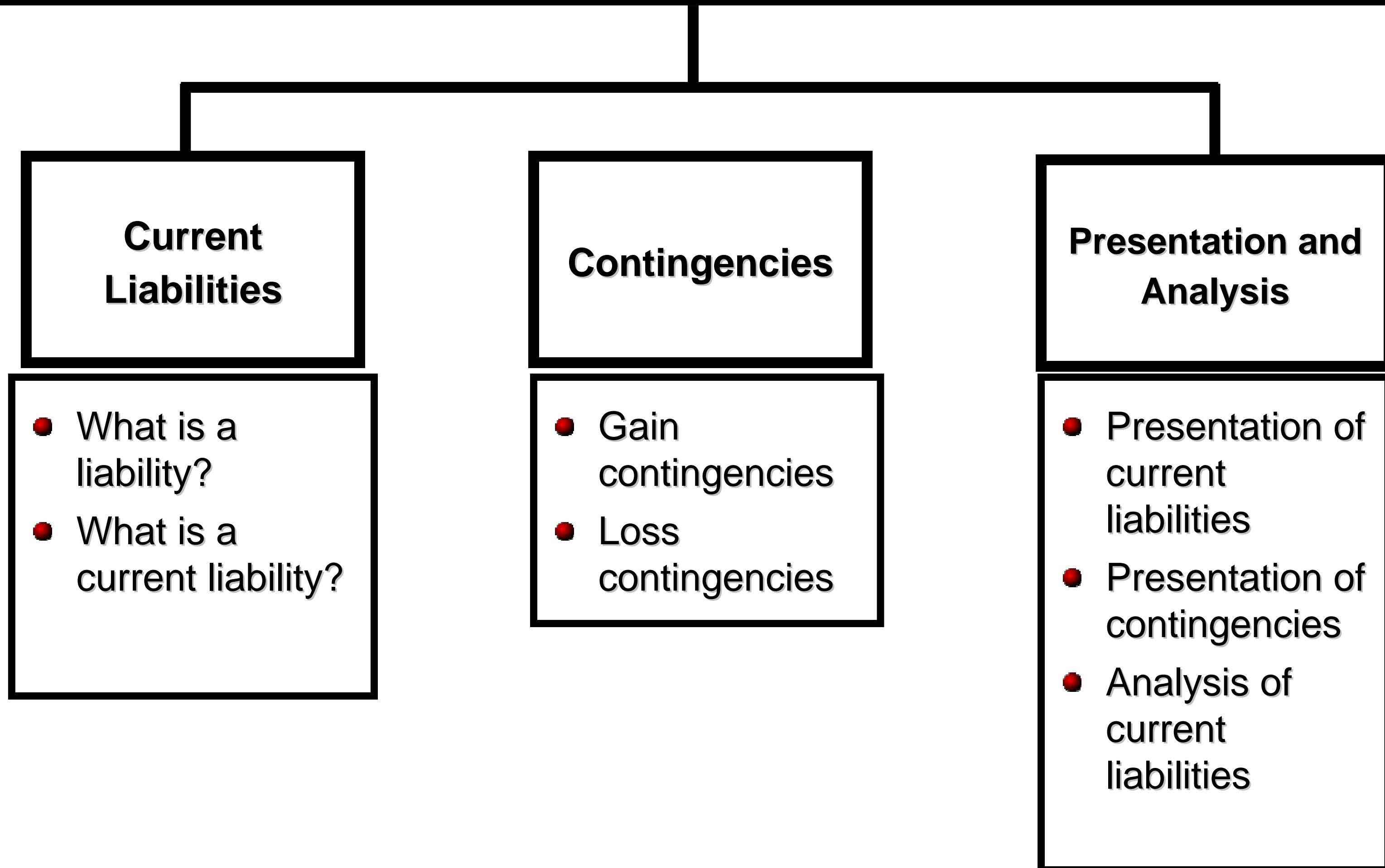
Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Describe the nature, type, and valuation of current liabilities.
2. Explain the classification issues of short-term debt expected to be refinanced.
3. Identify types of employee-related liabilities.
4. Identify the criteria used to account for and disclose gain and loss contingencies.
5. Explain the accounting for different types of loss contingencies.
6. Indicate how to present and analyze liabilities and contingencies.


Current Liabilities and Contingencies
Current Liabilities
Contingencies
Presentation and Analysis
What is a liability?
What is a current liability?
Gain contingencies
Loss contingencies
Presentation of current liabilities
Presentation of contingencies
Analysis of current liabilities

What is a Liability?

FASB, defines liabilities as:

"**probable future sacrifices of economic benefits** arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events."

What is a Current Liability?

Current liabilities are "obligations whose liquidation is reasonably expected to require use of existing resources properly classified as current assets, or the creation of other current liabilities."

Typical Current Liabilities:

- Accounts payable.
- Notes payable.
- Current maturities of long-term debt.
- Short-term obligations expected to be refinanced.
- Dividends payable.
- Customer advances and deposits.
- Unearned revenues.
- Sales taxes payable.
- Income taxes payable.
- Employee-related liabilities.

What is a Current Liability?

Accounts Payable (trade accounts payable)

Balances owed to others for goods, supplies, or services purchased on open account.

- Arise because of time lag between receipt of goods or services and the payment for them.
- The terms of the sale (e.g., 2/10, n/30) state period of extended credit.

What is a Current Liability?

Notes Payable

Written promises to pay a certain sum of money on a specified future date.

- Arise from purchases, financing, or other transactions.
- Notes classified as short-term or long-term.
- Notes may be interest-bearing or zero-interest-bearing.

What is a Current Liability?

E13-2 (Accounts and Notes Payable) The following are selected 2007 transactions of Sean Astin Corporation.

Sept. 1 - Purchased inventory from Encino Company on account for $50,000. Astin records purchases gross and uses a periodic inventory system.

Oct. 1 - Issued a $50,000, 12-month, 8% note to Encino in payment of account.

Oct. 1 - Borrowed $50,000 from the Shore Bank by signing a 12-month, zero-interest-bearing $54,000 note.

What is a Current Liability?

Sept. 1 - Purchased inventory from Encino Company on account for $50,000. Astin records purchases gross and uses a periodic inventory system.

		Debit	Credit
Sept. 1	Purchases	50,000	
	Accounts payable		50,000

What is a Current Liability?

Oct. 1 - Issued a $50,000, 12-month, 8% note to Encino in payment of account.

Oct. 1	Accounts payable	50,000	
	Notes payable		50,000
Dec. 31	Interest expense	1,000	
	Interest payable		1,000
	($50,000 X 8% X 3/12)		

LO 1 Describe the nature, type, and valuation of current liabilities.

What is a Current Liability?

Oct. 1 - Borrowed $50,000 from the Shore Bank by signing a 12-month, zero-interest-bearing $54,000 note.

Date	Account	Debit	Credit
Oct. 1	Cash	50,000	
	Discount on notes payable	4,000	
	Notes payable		54,000
Dec. 31	Interest expense	1,000	
	Discount on notes payable		1,000
	($4,000 x 3/12)		

What is a Current Liability?

Current Maturities of Long-Term Debt

Exclude long-term debts maturing currently as current liabilities if they are to be:

1. Retired by assets accumulated that have not been shown as current assets,
2. Refinanced, or retired from the proceeds of a new debt issue, or
3. Converted into capital stock.

What is a Current Liability?

Short-Term Obligations Expected to Be Refinanced

Exclude from current liabilities if both of the following conditions are met:

1. Must **intend to refinance** the obligation on a long-term basis.
2. Must **demonstrate an ability** to refinance:
   - Actual refinancing
   - Enter into a financing agreement

LO 2 Explain the classification issues of short-term debt expected to be refinanced.

What is a Current Liability?

Short-Term Obligations Expected to be Refinanced

Mgmt. Intends of Refinance

NO

Classify as Current Liability

YES

Demonstrates Ability to Refinance

NO

YES

Actual Refinancing after balance sheet date but before issue date

or

Financing Agreement Noncancellable with Capable Lender

Exclude Short-Term Obligations from Current Liabilities and Reclassify as LT Debt

LO 2 Explain the classification issues of short-term debt expected to be refinanced.

What is a Current Liability?

E13-3 (Refinancing of Short-Term Debt) On December 31, 2007, Hattie McDaniel Company had $1,200,000 of short-term debt in the form of notes payable due February 2, 2008. On January 21, 2008, the company issued 25,000 shares of its common stock for $38 per share, receiving $950,000 proceeds after brokerage fees and other costs of issuance. On February 2, 2008, the proceeds from the stock sale, supplemented by an additional $250,000 cash, are used to liquidate the $1,200,000 debt. The December 31, 2007, balance sheet is issued on February 23, 2008.

Instructions

Show how the $1,200,000 of short-term debt should be presented on the December 31, 2007, balance sheet, including note disclosure.

LO 2 Explain the classification issues of short-term debt expected to be refinanced.

What is a Current Liability?

Partial Balance Sheet	
Current liabilities:	
Notes payable	$ 250,000
Long-term debt:	
Notes payable refinanced	950,000
Total liabilities	1,200,000

LO 2 Explain the classification issues of short-term debt expected to be refinanced.

What is a Current Liability?

Dividends Payable

Amount owed by a corporation to its stockholders as a result of board of directors' authorization.

- Generally paid within three months.
- Undeclared dividends on cumulative preferred stock not recognized as a liability.
- Dividends payable in the form of shares of stock are not recognized as a liability. Reported in equity.

What is a Current Liability?

Customer Advances and Deposits

Include returnable cash deposits received from customers and employees.

- May be classified as current or long-term.

LO 2 Explain the classification issues of short-term debt expected to be refinanced.

What is a Current Liability?

Unearned Revenues

Payment received before delivering goods or rendering services?

Unearned and Earned Revenue Accounts

Illustration 13-3

Type of Business	Account Title	
	Unearned Revenue	Earned Revenue
Airline	Unearned Passenger Ticket Revenue	Passenger Revenue
Magazine publisher	Unearned Subscription Revenue	Subscription Revenue
Hotel	Unearned Rental Revenue	Rental Revenue
Auto dealer	Unearned Warranty Revenue	Warranty Revenue
Retailers	Unearned Gift Card Revenue	Sales Revenue

What is a Current Liability?

BE13-5 Game Pro Magazine sold 10,000 annual subscriptions on August 1, 2007, for $18 each. Prepare Game Pro's August 1, 2007, journal entry and the December 31, 2007, annual adjusting entry.

Aug. 1	Cash	180,000	
	Unearned revenue		180,000
	(10,000 x $18)		
Dec. 31	Unearned revenue	75,000	
	Subscription revenue		75,000
	($180,000 x 5/12 = $75,000)		

What is a Current Liability?

Sales Taxes Payable

Retailers must collect sales taxes from customers on transfers of tangible personal property and on certain services and then remit to the proper governmental authority.

What is a Current Liability?

BE13-6 Flintstones Corporation made credit sales of $30,000 which are subject to 6% sales tax. The corporation also made cash sales which totaled $19,610 including the 6% sales tax. (a) prepare the entry to record Flintstones' credit sales. (b) Prepare the entry to record Flintstones' cash sales.

Accounts receivable	31,800	
Sales		30,000
Sales tax payable		1,800

($30,000 x 6% = $1,800)

Cash	19,610	
Sales		18,500
Sales tax payable		1,110

($19,610 ÷ 1.06 = $18,500)

LO 2 Explain the classification issues of short-term debt expected to be refinanced.

What is a Current Liability?

Income Tax Payable

Businesses must prepare an income tax return and compute the income tax payable resulting from the operations of the current period.

- Taxes payable are a current liability
- Corporations must make periodic tax payments throughout the year.
- Differences between taxable income and accounting income sometimes occur (Chapter 19).

What is a Current Liability?

Employee-Related Liabilities

Amounts owed to employees for salaries or wages are reported as a current liability.

In addition, current liabilities may include:

- Payroll deductions.
- Compensated absences.
- Bonuses (Appendix 13A).

LO 3 Identify types of employee-related liabilities.

What is a Current Liability?

Payroll Deductions

Taxes:

- Social Security Taxes
- Unemployment Taxes
- Income Tax Withholding

What is a Current Liability?

Exercise Assume a weekly payroll of $10,000 entirely subject to F.I.C.A. and Medicare (7.65%), federal (0.8%) and state (4%) unemployment taxes, with income tax withholding of $1,320 and union dues of $88 deducted. The company records the **salaries and wages paid** and the **employee payroll deductions** as follows:

Journal entry to record salaries and wages paid:

Account	Debit	Credit
Salaries and wages expense	10,000	
Withholding taxes payable		1,320
F.I.C.A taxes payable		765
Union dues payable		88
Cash		7,827

What is a Current Liability?

Exercise Assume a weekly payroll of $10,000 entirely subject to F.I.C.A. and Medicare (7.65%), federal (0.8%) and state (4%) unemployment taxes, with income tax withholding of $1,320 and union dues of $88 deducted. The company records the **salaries and wages paid** and the **employee payroll deductions** as follows:

Journal entry to record employer payroll taxes:

Payroll tax expense	1,245	
F.I.C.A taxes payable		765
Federal unemployment tax payable		80
State unemployment tax payable		400

What is a Current Liability?

Compensated Absences

Paid absences for vacation, illness, and holidays.

Accrue a liability if all the following conditions exist.

- The employer's obligation is attributable to employees' services already rendered.
- The obligation relates to rights that vest or accumulate.
- Payment of the compensation is probable.
- The amount can be reasonably estimated.

LO 3 Identify types of employee-related liabilities.

What is a Current Liability?

Bonus Agreements

Result in payments to certain or all employees in addition to their regular salaries or wages.

- Bonuses paid are an operating expense.
- Unpaid bonuses should be reported as a current liability.

Contingencies

"An existing condition, situation, or set of circumstances involving uncertainty as to possible gain **(gain contingency)** or loss **(loss contingency)** to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur."*

*"Accounting for Contingencies," *Statement of Financial Accounting Standards No. 5* (Stamford, Conn.: FASB, 1975), par. 1

LO 4 Identify the criteria used to account for and disclose gain and loss contingencies.

Gain Contingencies

Typical Gain Contingencies are:

- Possible receipts of monies from gifts, donations, and bonuses.
- Possible refunds from the government in tax disputes.
- Pending court cases with a probable favorable outcome.
- Tax loss carryforwards (Chapter 19).

Gain contingencies are **not recorded**.

Disclosed only if probability of receipt is high.

Loss Contingencies

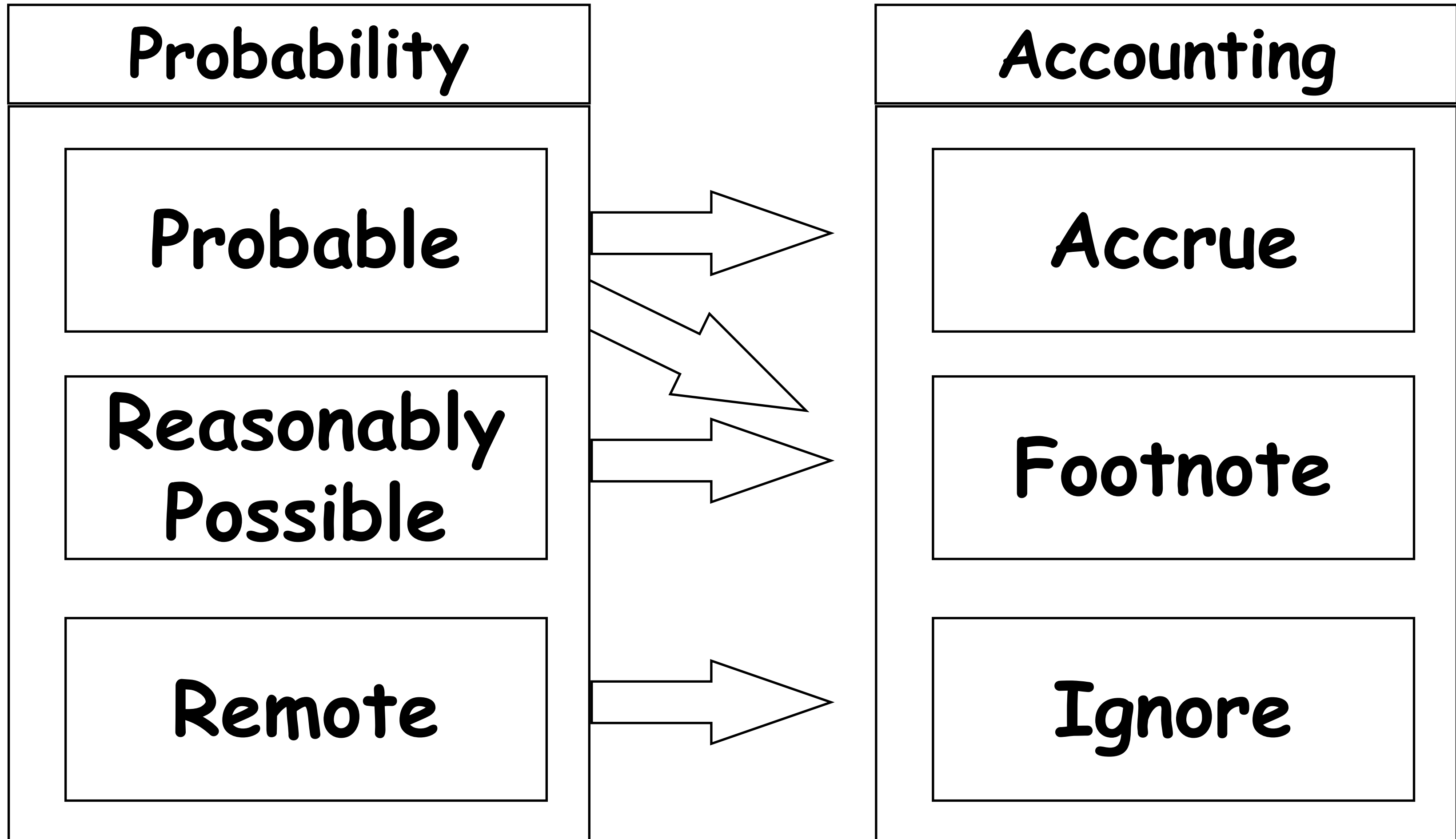
Contingent Liability

The likelihood that the future event will confirm the incurrence of a liability can range from probable to remote.

FASB uses three areas of probability:

- Probable.
- Reasonably possible.
- Remote.

Loss Contingencies



LO 4 Identify the criteria used to account for and disclose gain and loss contingencies.

Loss Contingencies

BE13-10 Justice League Inc. is involved in a lawsuit at December 31, 2007. (a) Prepare the December 31 entry assuming it is probable that Justice League will be liable for $700,000 as a result of this suit. (b) Prepare the December 31 entry, if any, assuming it is *not* probable that Justice League will be liable for any payment as a result of this suit.

		Debit	Credit
(a)	Lawsuit loss	700,000	
	Lawsuit liability		700,000

(b) No entry is necessary. The loss is not accrued because it is not probable that a liability has been incurred at 12/31/07.

LO 4 Identify the criteria used to account for and disclose gain and loss contingencies.

Loss Contingencies

Common loss contingencies:

1. Litigation, claims, and assessments.
2. Guarantee and warranty costs.
3. Premiums and coupons.
4. Environmental liabilities.

LO 5 Explain the accounting for different types of loss contingencies.

Loss Contingencies

Litigation, Claims, and Assessments

Companies must consider the following factors, in determining whether to record a liability with respect to **pending** or **threatened litigation** and actual or possible **claims** and **assessments**.

- Time period in which the action occurred.
- Probability of an unfavorable outcome.
- Ability to make a reasonable estimate of the loss.

Loss Contingencies

Guarantee and Warranty Costs

Promise made by a seller to a buyer to make good on a deficiency of quantity, quality, or performance in a product.

If it is probable that customers will make warranty claims and a company can reasonably estimate the costs involved, the company must record an expense.

Loss Contingencies

BE13-13 Frantic Factory provides a 2-year warranty with one of its products which was first sold in 2007. In that year, Frantic spent $70,000 servicing warranty claims. At year-end, Frantic estimates that an additional $500,000 will be spent in the future to service warranty claims related to 2007 sales. Prepare Frantic's journal entry to record the $70,000 expenditure, and the December 31 adjusting entry.

2007	Warranty expense	70,000	
	Cash		70,000
12/31/07	Warranty expense	500,000	
	Warranty liability		500,000

Loss Contingencies

Premiums and Coupons

Companies should charge the costs of premiums and coupons to expense in the period of the sale that benefits from the plan.

Accounting:

- Company estimates the number of outstanding premium offers that customers will present for redemption.
- Company charges the cost of premium offers to Premium Expense and credits Estimated Liability for Premiums.

Loss Contingencies

Environmental Liabilities

A company must recognize an **asset retirement obligation (ARO)** when it has an existing legal obligation associated with the retirement of a long-lived asset and when it can reasonably estimate the amount of the liability.

Presentation and Analysis

Presentation of Current Liabilities

- Usually reported at their full maturity value.
- Difference between present value and the maturity value is considered immaterial.

Presentation of Contingencies

Disclosure should include:

- Nature of the contingency.
- An estimate of the possible loss or range of loss.

LO 6 Indicate how to present and analyze liabilities and contingencies.

Presentation and Analysis

Analysis of Current Liabilities

Liquidity regarding a liability is the expected time to elapse before its payment. Two ratios to help assess liquidity are:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Acid-Test Ratio} = \frac{\text{Cash + Marketable Securities + Net Receivables}}{\text{Current Liabilities}}$$

LO 6 Indicate how to present and analyze liabilities and contingencies.

Presentation and Analysis

E13-17 (Ratio Computations and Discussion) Sprague Company has been operating for several years, and on December 31, 2007, presented the following balance sheet.

Balance Sheet (in thousands)		
Assets		
Cash	$	40,000
Accounts recievables, net		75,000
Inventories		95,000
Plant assets, net		220,000
Total assets	$	430,000
Liabilities and Equity		
Accounts payable	$	80,000
Mortgage payable		140,000
Common stock, $1 par		150,000
Retained earnings		60,000
Total liabilities and equity	$	430,000

Compute the current ratio:

$$\frac{\$210,000}{80,000} = 2.63 \text{ to } 1$$

Compute the acid-test ratio:

$$\frac{\$115,000}{80,000} = 1.44 \text{ to } 1$$

LO 6 Indicate how to present and analyze liabilities and contingencies.

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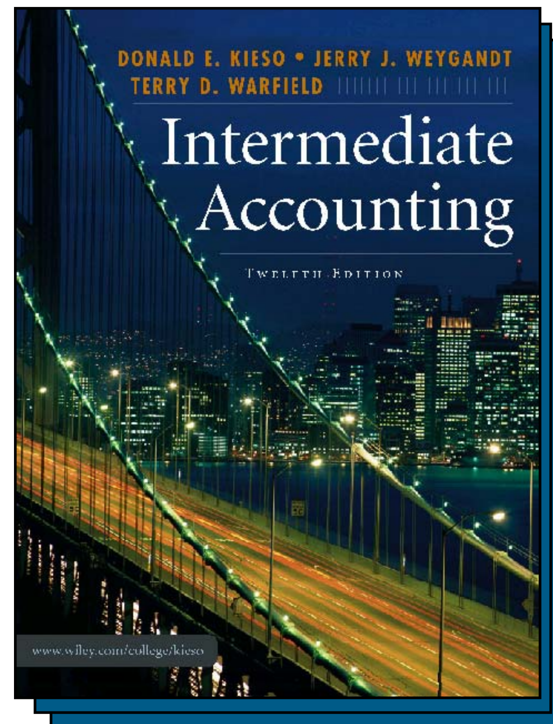
Long-Term Liabilities

Chapter 14

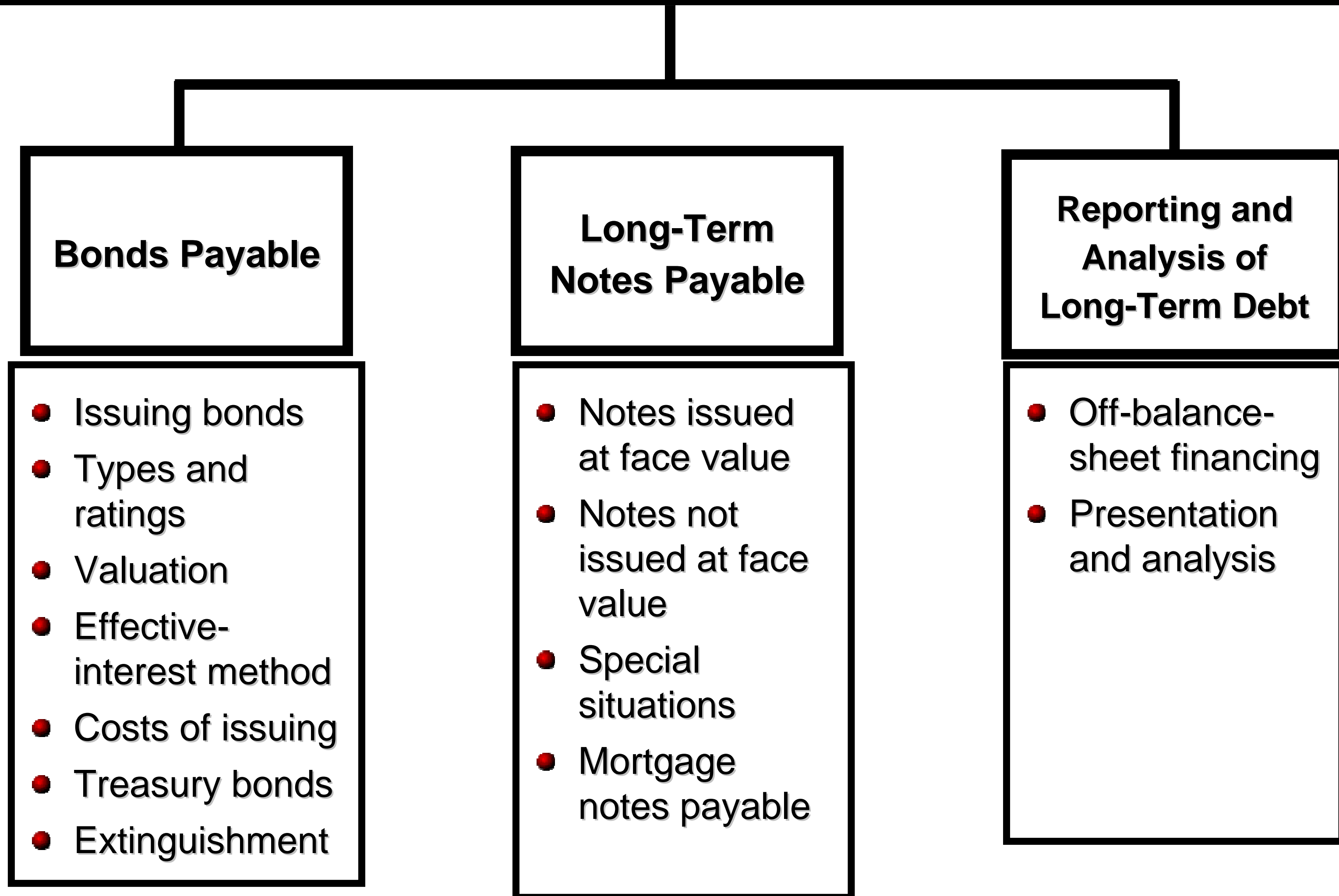


Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield

Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Describe the formal procedures associated with issuing long-term debt.
2. Identify various types of bond issues.
3. Describe the accounting valuation for bonds at date of issuance.
4. Apply the methods of bond discount and premium amortization.
5. Describe the accounting for the extinguishment of debt.
6. Explain the accounting for long-term notes payable.
7. Explain the reporting of off-balance-sheet financing arrangements.
8. Indicate how to present and analyze long-term debt.


Current Liabilities and Contingencies
Bonds Payable
Issuing bonds
Types and ratings
Valuation
Effective-interest method
Costs of issuing
Treasury bonds
Extinguishment
Long-Term Notes Payable
Notes issued at face value
Notes not issued at face value
Special situations
Mortgage notes payable
Reporting and Analysis of Long-Term Debt
Off-balance-sheet financing
Presentation and analysis

Bonds Payable

Long-term debt consists of probable future sacrifices of economic benefits arising from present obligations that are not payable within a year or the operating cycle of the company, whichever is longer.

Examples:

- Bonds payable
- Notes payable
- Mortgages payable
- Pension liabilities
- Lease liabilities

Long-term debt has various **covenants** or **restrictions**.

LO 1 Describe the formal procedures associated with issuing long-term debt.

Issuing Bonds

- Bond contract known as a **bond indenture**.
- Represents a promise to pay:
  - (1) sum of money at designated maturity date, plus
  - (2) periodic interest at a specified rate on the maturity amount (face value).
- Paper certificate, typically a $1,000 face value.
- Interest payments usually made semiannually.
- Purpose is to borrow when the amount of capital needed is too large for one lender to supply.

LO 1 Describe the formal procedures associated with issuing long-term debt.

Types of Bonds

Common types found in practice:

- Secured and Unsecured (debenture) bonds,
- Term, Serial, and Callable bonds,
- Convertible bonds, Commodity-backed bonds, Deep-discount bonds (Zero-interest debenture bonds),
- Registered bonds and bearer or coupon bonds,
- Income and Revenue bonds.

LO 2 Identify various types of bond issues.

Valuation of Bonds – Discount and Premium

Between the time the company sets the terms and the time it issues the bonds, the market conditions and the financial position of the issuing corporation may change significantly. Such changes affect the marketability of the bonds and thus their selling price.

The investment community values a bond at the **present value** of its expected future cash flows, which consist of (1) **interest** and (2) **principal**.

LO 3 Describe the accounting valuation for bonds at date of issuance.

Valuation of Bonds – Discount and Premium

Interest Rates

- **Stated**, **coupon**, or **nominal rate** = The interest rate written in the terms of the bond indenture.
- **Market rate** or **effective yield** = rate that provides an acceptable return on an investment commensurate with the issuer's risk characteristics.

  Rate of interest actually earned by the bondholders.

LO 3 Describe the accounting valuation for bonds at date of issuance.

Valuation of Bonds – Discount and Premium

How do you calculate the amount of interest that is actually paid to the bondholder each period?

(Stated rate x Face Value of the bond)

How do you calculate the amount of interest that is actually recorded as interest expense by the issuer of the bonds?

(Market rate x Carrying Value of the bond)

Valuation of Bonds – Discount and Premium

Calculating the Selling Price of a Bond

1- Depends on Market Rate of interest

2- Computation of selling price:

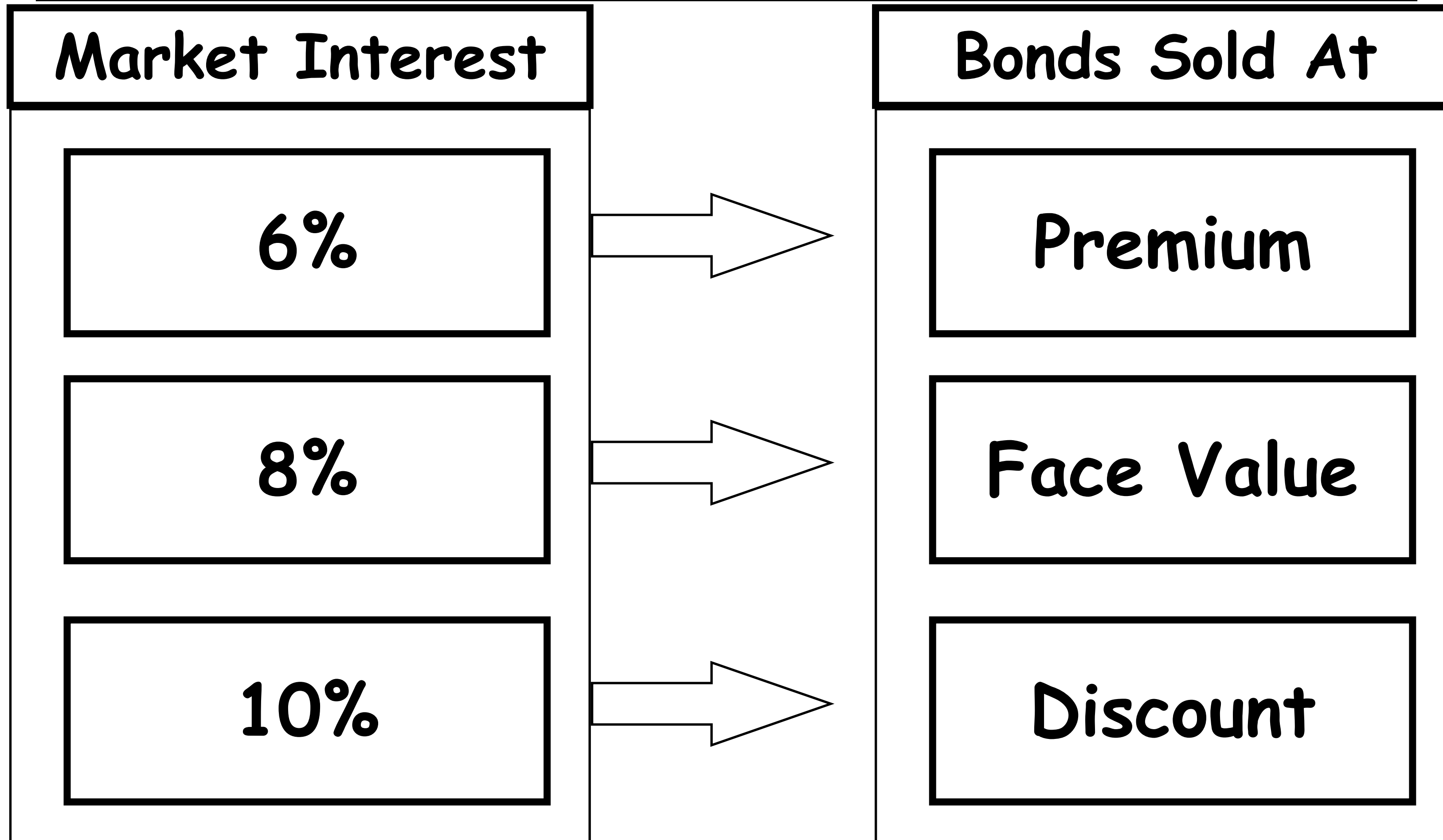
- PV of maturity value, plus
- PV of interest payments, at what rate?
- Market rate of interest

3- Semi-annual interest paying bonds:

- Require doubling the periods
- Halving the interest rate

LO 3 Describe the accounting valuation for bonds at date of issuance.

Valuation of Bonds – Discount and Premium



LO 3 Describe the accounting valuation for bonds at date of issuance.

Bonds Issued at Par

Illustration Three year bonds are issued at face value of $100,000 on Jan. 1, 2007, with a stated interest rate of 8%. Interest paid annually on Dec. 31. Calculate the issue price of the bonds, market interest rate of 8%.

Market Rate 8% (PV for 3 periods at 8%)

Principal	$100,000	x	0.79383	=	$ 79,383
Interest	8,000	x	2.57710	=	20,617
		Present value			100,000
		Face value			100,000
		Discount			$ 0

LO 3 Describe the accounting valuation for bonds at date of issuance.

Bonds Issued at Par

Illustration Three year bonds are issued at face value of $100,000 on Jan. 1, 2007, a stated interest rate of 8%, and market rate of 8%.

Date	Cash Paid	Interest Expense	Carrying Amount
1/1/07			$ 100,000
12/31/07	$ 8,000	$ 8,000	100,000
12/31/08	8,000	8,000	100,000
12/31/09	8,000	8,000	100,000

Bonds Issued at Par

Illustration Stated rate = 8%. Market rate = 8%.

Journal entries for 2007:

1/1/07	Cash	100,000	
	Bonds payable		100,000
12/31/07	Interest expense	8,000	
	Cash		8,000

LO 3 Describe the accounting valuation for bonds at date of issuance.

Bonds Issued at a Discount

Illustration Three year bonds are issued at face value of $100,000 on Jan. 1, 2007, and a stated interest rate of 8%. Calculate the issue price of the bonds assuming a market interest rate of 10%.

Market Rate 10% (PV for 3 periods at 10%)

Principal	$100,000	x	0.75132	=	$ 75,132
Interest	8,000	x	2.48685	=	19,895
		Present value			95,027
		Face value			100,000
		Discount			$ (4,973)

LO 4 Apply the methods of bond discount and premium amortization.

Bonds Issued at a Discount

Illustration Three year bonds are issued at face value of $100,000 on Jan. 1, 2007, a stated interest rate of 8%, and market rate of 10%.

Date	8% Cash Paid	10% Interest Expense	Discount Amortized	Carrying Amount
1/1/07				$ 95,027
12/31/07	$ 8,000	$ 9,503	$ 1,503	96,530
12/31/08	8,000	9,653	1,653	98,183
12/31/09	8,000	9,817 *	1,817	100,000

* rounding

LO 4 Apply the methods of bond discount and premium amortization.

Bonds Issued at a Discount

Illustration Stated rate = 8%. Market rate = 10%.

Journal entries for 2007:

1/1/07	Cash	95,027	
	Discount on bonds payable	4,973	
	Bonds payable		100,000
12/31/07	Interest expense	9,503	
	Discount on bonds payable		1,503
	Cash		8,000

LO 4 Apply the methods of bond discount and premium amortization.

Bonds Issued at a Premium

Illustration Three year bonds are issued at face value of $100,000 on Jan. 1, 2007, and a stated interest rate of 8%. Calculate the issue price of the bonds assuming a market interest rate of 6%.

Market Rate 6% (PV for 3 periods at 6%)

Principal	$100,000	x	0.83962	=	$ 83,962
Interest	8,000	x	2.67301	=	21,384
			Present value		105,346
			Face value		100,000
			Premium		$ 5,346

LO 4 Apply the methods of bond discount and premium amortization.

Bonds Issued at a Premium

Illustration Three year bonds are issued at face value of $100,000 on Jan. 1, 2007, a stated interest rate of 8%, and market rate of 6%.

Date	8% Cash Paid	6% Interest Expense	Premium Amortized	Carrying Amount
1/1/07				$ 105,346
12/31/07	$ 8,000	$ 6,321	$ 1,679	103,667
12/31/08	8,000	6,220	1,780	101,887
12/31/09	8,000	6,113	1,887	100,000

LO 4 Apply the methods of bond discount and premium amortization.

Bonds Issued at a Premium

Illustration Stated rate = 8%. Market rate = 6%.

Journal entries for 2007:

Date	Account	Debit	Credit
1/1/07	Cash	105,346	
	Premium on bonds payable		5,346
	Bonds payable		100,000
12/31/07	Interest expense	6,321	
	Premium on bonds payable	1,679	
	Cash		8,000

LO 4 Apply the methods of bond discount and premium amortization.

Valuation of Bonds – Discount and Premium

Bonds Issued between Interest Dates

Buyers will pay the seller the interest accrued from the last interest payment date to the date of issue.

On the next semiannual interest payment date, purchasers will receive the full six months' interest payment.

LO 4 Apply the methods of bond discount and premium amortization.

Valuation of Bonds - Discount and Premium

Classification of Discount and Premium

Discount on bonds payable is a liability valuation account, that reduces the face amount of the related liability (contra-account).

Premium on bonds payable is a liability valuation account, that adds to the face amount of the related liability (adjunct account).

Balance Sheet (in thousands)		
Assets		
Cash	$	40,000
Inventories		95,000
Plant assets, net		280,000
Total assets	$	415,000
Liabilities and Equity		
Accounts payable	$	80,000
Bonds payable		140,000
Disount on bonds payable		(15,000)
Common stock, $1 par		150,000
Retained earnings		60,000
Total liabilities and equity	$	415,000

LO 4 Apply the methods of bond discount and premium amortization.

Costs of Issuing Bonds

Unamortized bond issue costs are treated as a deferred charge and amortized over the life of the debt.

Extinguishment of Debt

Extinguishment before Maturity Date

- Reacquisition price > Net carrying amount = Loss
- Net carrying amount > Reacquisition price = Gain
- At time of reacquisition, unamortized premium or discount, and any costs of issue applicable to the bonds, must be amortized up to the reacquisition date.

Extinguishment of Debt

Illustration Three year 8% bonds of $100,000 issued on Jan. 1, 2007, are recalled at 105 on Dec. 31, 2008. Expenses of recall are $2,000. Market interest on issue date was 8%.

Date	8% Cash Paid	10% Interest Expense	Discount Amortized	Carrying Amount
1/1/07				$ 95,027
12/31/07	$ 8,000	$ 9,503	$ 1,503	96,530
12/31/08	8,000	9,653	1,653	98,183

Account Balances at Dec. 31, 2008:

Bonds payable = $98,183

Discount on bonds payable ($4,973–1,503-1,653) = 1,817

Extinguishment of Debt

Illustration Three year 8% bonds of $100,000 issued on Jan. 1, 2007, are recalled at 105 on Dec. 31, 2008. Expenses of recall are $2,000. Market interest on issue date was 8%.

Journal entry at Dec. 31, 2007:

Bonds payable	100,000	
Loss on extinguishment	8,817	
Cash		107,000
Discount on bonds payable		1,817

Reacquisition price = $105,000 + 2,000 = $107,000

Long-Term Notes Payable

Accounting is Similar to Bonds

- A note is valued at the present value of its future interest and principal cash flows.
- Company amortizes any discount or premium over the life of the note.

LO 6 Explain the accounting for long-term notes payable.

Notes Issued at Face Value

BE14-12 Jennifer Capriati, Inc. issued a $100,000, 4-year, 11% note at face value to Forest Hills Bank on January 1, 2008, and received $100,000 cash. The note requires annual interest payments each December 31. Prepare Capriati's journal entries to record (a) the issuance of the note and (b) the December 31 interest payment.

	Account	Debit	Credit
(a)	Cash	100,000	
	Notes payable		100,000
(b)	Interest expense	11,000	
	Cash		11,000
	($100,000 x 11% = $11,000)		

LO 6 Explain the accounting for long-term notes payable.

Zero-Interest-Bearing Notes

Issuing company records the difference between the face amount and the present value (cash received) as

- a discount and
- amortizes that amount to interest expense over the life of the note.

Zero-Interest-Bearing Notes

BE14-13 McNabb Corporation issued a 4-year, $50,000, zero-interest-bearing note to Reid Company on January 1, 2008, and received cash of $31,776. The implicit interest rate is 12%. Prepare McNabb's journal entries for (a) the Jan. 1 issuance and (b) the Dec. 31 recognition of interest.

Date	0% Cash Paid	12% Interest Expense	Discount Amortized	Carrying Amount
1/1/08				$ 31,776
12/31/08	0	$ 3,813	$ 3,813	35,589
12/31/09	0	4,271	4,271	39,860
12/31/10	0	4,783	4,783	44,643
12/31/11	0	5,357	5,357	50,000

LO 6 Explain the accounting for long-term notes payable.

Zero-Interest-Bearing Notes

BE14-13 McNabb Corporation issued a 4-year, $50,000, zero-interest-bearing note to Reid Company on January 1, 2008, and received cash of $31,776. The implicit interest rate is 12%. Prepare McNabb's journal entries for (a) the Jan. 1 issuance and (b) the Dec. 31 recognition of interest.

		Debit	Credit
(a)	Cash	31,776	
	Discount on notes payable	18,224	
	Notes payable		50,000
(b)	Interest expense	3,813	
	Discount on notes payable		3,813
	($31,776 x 12%)		

LO 6 Explain the accounting for long-term notes payable.

Interest-Bearing Notes

BE14-14 Larry Byrd Corporation issued a 4-year, $50,000, 5% note to Magic Johnson Company on Jan. 1, 2008, and received a computer that normally sells for $39,369. The note requires annual interest payments each Dec. 31. The market rate of interest is 12%. Prepare Byrd's journal entries for (a) the Jan. 1 issuance and (b) the Dec. 31 interest.

Date	5% Cash Paid	12% Interest Expense	Discount Amortized	Carrying Amount
1/1/08				$ 39,369
12/31/08	$ 2,500	$ 4,724	$ 2,224	41,593
12/31/09	2,500	4,991	2,491	44,084
12/31/10	2,500	5,290	2,790	46,875
12/31/11	2,500	5,625	3,125	50,000

LO 6 Explain the accounting for long-term notes payable.

Notes Issued at Face Value

Date	5% Cash Paid	12% Interest Expense	Discount Amortized	Carrying Amount
1/1/08				$ 39,369
12/31/08	$ 2,500	$ 4,724	$ 2,224	41,593
12/31/09	2,500	4,991	2,491	44,084

		Debit	Credit
(a)	Cash	39,369	
	Discount on notes payable	10,631	
	Notes payable		50,000
(b)	Interest expense	4,724	
	Cash		2,500
	Discount on notes payable		2,224

LO 6 Explain the accounting for long-term notes payable.

Special Notes Payable Situations

Notes Issued for Property, Goods, and Services

When exchanging the debt instrument for property, goods, or services in a bargained transaction, the stated interest rate is presumed to be fair unless:

(1) No interest rate is stated, or

(2) The stated interest rate is unreasonable, or

(3) The face amount is materially different from the current cash price for the same or similar items or from the market value of the debt instrument.

Special Notes Payable Situations

Choice of Interest Rates

If a company cannot determine the fair value of the property, goods, services, or other rights, and if the note has no ready market, the company must impute an interest rate.

The choice of rate is affected by:

- prevailing rates for similar instruments
- factors such as restrictive covenants, collateral, payment schedule, and the existing prime interest rate.

Mortgage Notes Payable

A promissory note secured by a document called a mortgage that pledges title to property as security for the loan.

- Most common form of long-term notes payable.
- Payable in full at maturity or in installments.
- Fixed-rate mortgage.
- Variable-rate mortgages.

Off-Balance-Sheet Financing

An attempt to borrow monies in such a way to prevent recording the obligations.

Different Forms:

- Non-Consolidated Subsidiary
- Special Purpose Entity (SPE)
- Operating Leases

LO 7 Explain the reporting of off-balance-sheet financing arrangements.

Presentation and Analysis of Long-Term Debt

Presentation of Long-Term Debt

Note disclosures generally indicate the nature of the liabilities, maturity dates, interest rates, call provisions, conversion privileges, restrictions imposed by the creditors, and assets designated or pledged as security.

Must disclose future payments for sinking fund requirements and maturity amounts of long-term debt during each of the next five years.

Presentation and Analysis of Long-Term Debt

Analysis of Long-Term Debt

Two ratios that provide information about debt-paying ability and long-run solvency are:

1. **Debt to total assets** $= \dfrac{\text{Total debt}}{\text{Total assets}}$

The higher the percentage of debt to total assets, the greater the risk that the company may be unable to meet its maturing obligations.

LO 8 Indicate how to present and analyze long-term debt.

Analysis of Long-Term Debt

Two ratios that provide information about debt-paying ability and long-run solvency are:

2. Times interest earned = $\dfrac{\text{Income before income taxes and interest expense}}{\text{Interest expense}}$

Indicates the company's ability to meet interest payments as they come due.

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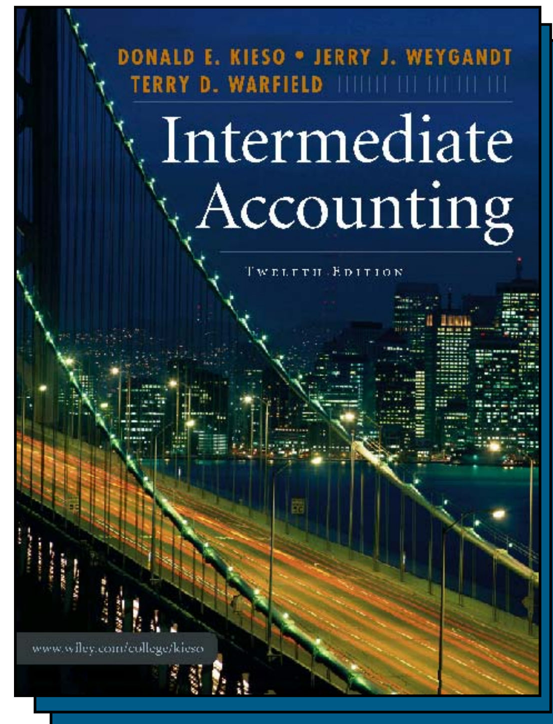
Stockholders' Equity

Chapter 15

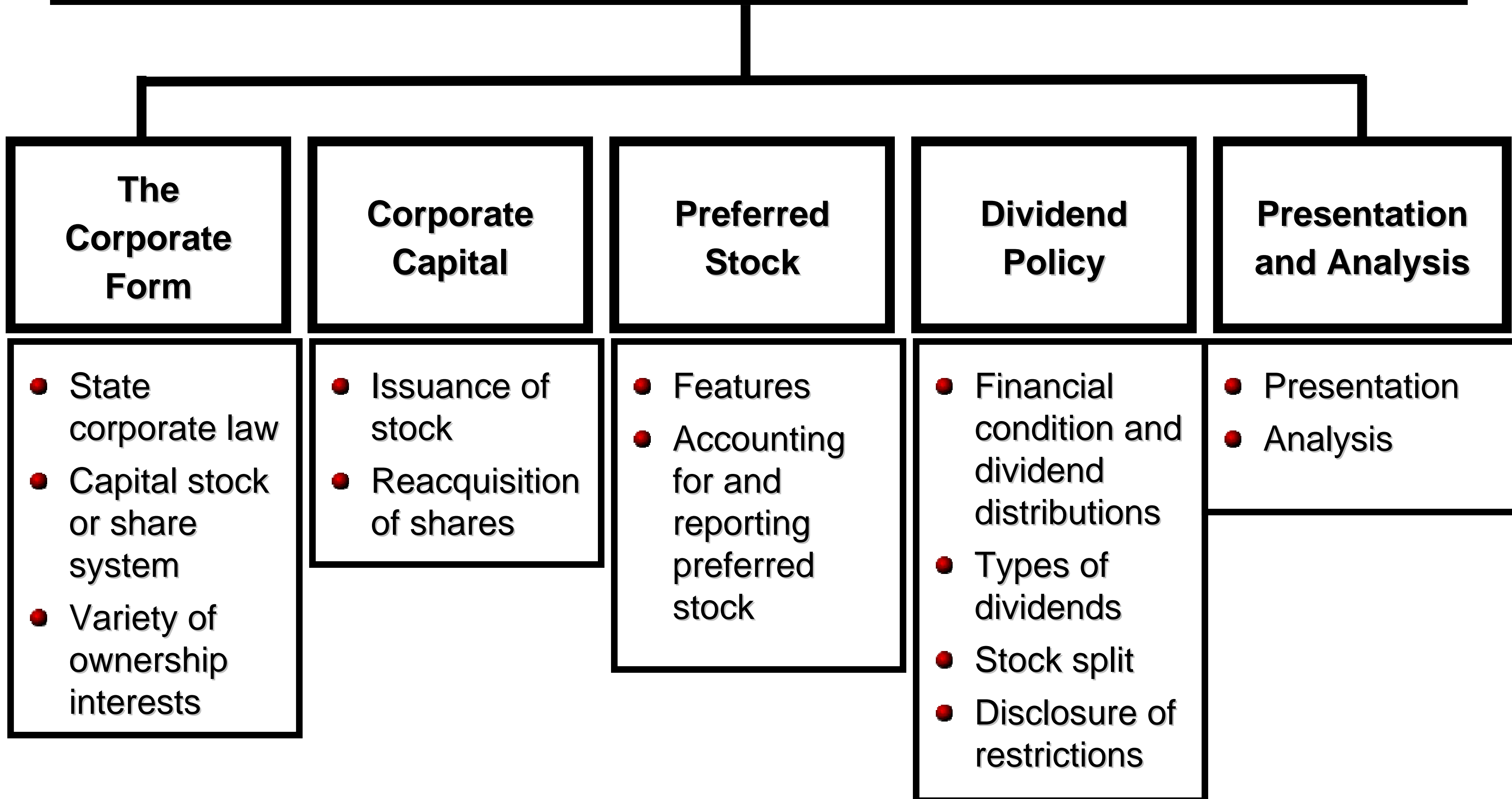
Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Discuss the characteristics of the corporate form of organization.
2. Identify the key components of stockholders' equity.
3. Explain the accounting procedures for issuing shares of stock.
4. Describe the accounting for treasury stock.
5. Explain the accounting for and reporting of preferred stock.
6. Describe the policies used in distributing dividends.
7. Identify the various forms of dividend distributions.
8. Explain the accounting for small and large stock dividends, and for stock splits.
9. Indicate how to present and analyze stockholders' equity.


Stockholders' Equity
The Corporate Form
Corporate Capital
Preferred Stock
Dividend Policy
Presentation and Analysis
State corporate law
Capital stock or share system
Variety of ownership interests
Issuance of stock
Reacquisition of shares
Features
Accounting for and reporting preferred stock
Financial condition and dividend distributions
Types of dividends
Stock split
Disclosure of restrictions
Presentation
Analysis

The Corporate Form of Organization

Three primary forms of business organization

Proprietorship	Partnership	Corporation

Special characteristics of the corporate form:

1. Influence of state corporate law.
2. Use of capital stock or share system.
3. Development of a variety of ownership interests.

LO 1 Discuss the characteristics of the corporate form of organization.

The Corporate Form of Organization

State Corporate Law

Corporation must submit **articles of incorporation** to the state in which incorporation is desired.

- **General Motors** - incorporated in Delaware.
- **U.S. Steel** - incorporated in New Jersey.

Accounting for stockholders' equity follows the provisions of each states business incorporation act.

LO 1 Discuss the characteristics of the corporate form of organization.

The Corporate Form of Organization

Capital Stock or Share System

In the absence of restrictive provisions, each share carries the following rights:

1. To share proportionately in profits and losses.
2. To share proportionately in management (the right to vote for directors).
3. To share proportionately in assets upon liquidation.
4. To share proportionately in any new issues of stock of the same class—called the **preemptive right**.

The Corporate Form of Organization

Variety of Ownership Interests

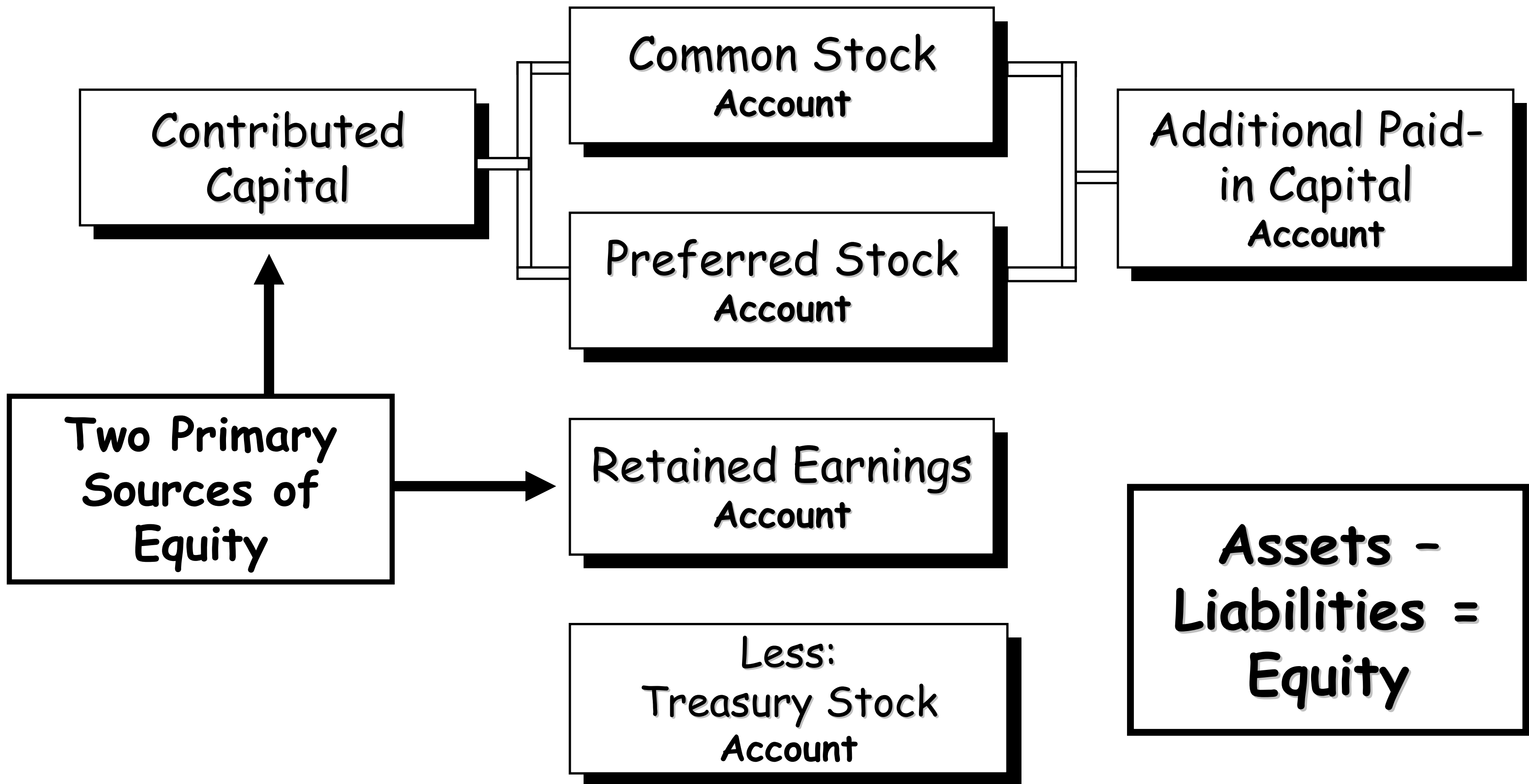
Common stock represents basic ownership interest.

- Bears ultimate risks of loss.
- Receives the benefits of success.
- Not guaranteed dividends nor assets upon dissolution.

Preferred stock is created by contract, when stockholders' sacrifice certain rights in return for other rights or privileges, usually dividend preference.

LO 1 Discuss the characteristics of the corporate form of organization.

Corporate Capital



LO 2 Identify the key components of stockholders' equity.

Corporate Capital

Issuance of Stock

Shares authorized - Shares sold - Shares issued

Accounting problems:

1. Par value stock.
2. No-par stock.
3. Stock issued with other securities.
4. Stock issued in noncash transactions.
5. Costs of issuing stock.

Corporate Capital

Par Value Stock

Low par values help companies avoid a contingent liability.

Corporations maintain accounts for:

- Preferred Stock or Common Stock.
- Additional Paid-in Capital

Corporate Capital

BE15-1: Lost Vikings Corporation issued 300 shares of $10 par value common stock for $4,100. Prepare Lost Vikings' journal entry.

Journal entry:

Account	Debit	Credit
Cash	4,100	
Common stock (300 x $10)		3,000
Additional paid-in capital		1,100

LO 3 Explain the accounting procedures for issuing shares of stock.

Corporate Capital

No-Par Stock

Reasons for issuance:

- Avoids contingent liability.
- Avoids confusion over recording par value versus fair market value.

Some states require that no-par stock have a **stated value**.

Corporate Capital

BE15-2: Shinobi Corporation issued 600 shares of no-par common stock for $10,200. Prepare Shinobi's journal entry if (a) the stock has no stated value, and (b) the stock has a stated value of $2 per share.

Journal entry:

	Account	Debit	Credit
a.	Cash	10,200	
	Common stock		10,200
b.	Cash	10,200	
	Common stock (600 x $2)		1,200
	Additional paid-in capital		9,000

LO 3 Explain the accounting procedures for issuing shares of stock.

Corporate Capital

Stock Issued with Other Securities

Two methods of allocating proceeds:

1. the **proportional** method and
2. the **incremental** method.

LO 3 Explain the accounting procedures for issuing shares of stock.

Corporate Capital

BE15-4: Primal Rage Corporation issued 300 shares of $10 par value common stock and 100 shares of $50 par value preferred stock for a lump sum of $14,200. The common stock has a market value of $20 per share, and the preferred stock has a market value of $90 per share.

	Number		Amount		Total	Percent
Common stock	300	x	$ 20.00	=	$ 6,000	40%
Preferred stock	100	x	90.00		9,000	60%
			Fair Market Value		$ 15,000	100%

Allocation:	Common	Preferred
Issue price	$ 14,200	$ 14,200
Allocation %	40%	60%
Total	$ 5,680	$ 8,520

Proportional Method

LO 3 Explain the accounting procedures for issuing shares of stock.

Corporate Capital

BE15-4: Primal Rage Corporation issued 300 shares of $10 par value common stock and 100 shares of $50 par value preferred stock for a lump sum of $14,200. The common stock has a market value of $20 per share, and the preferred stock has a market value of $90 per share.

Journal entry (Proportional):

Account	Debit	Credit
Cash	14,200	
Preferred stock (100 x $50)		5,000
Additional paid-in capital-preferred		3,520
Common stock (300 x $10)		3,000
Additional paid-in capital-common		2,680

LO 3 Explain the accounting procedures for issuing shares of stock.

Corporate Capital

BE15-4: (Variation) Primal Rage Corporation issued 300 shares of $10 par value common stock and 100 shares of $50 par value preferred stock for a lump sum of $14,200. The common stock has a market value of $20 per share, and the value of the preferred stock is unknown.

	Number		Amount		Total
Common stock	300	x	$ 20.00	=	$ 6,000
Preferred stock	100	x			-
			Fair Market Value		$ 6,000

Allocation:	Common	Preferred
Issue price		$ 14,200
Common		(6,000)
Total	$ 6,000	$ 8,200

Incremental Method

LO 3 Explain the accounting procedures for issuing shares of stock.

Corporate Capital

BE15-4: (Variation) Primal Rage Corporation issued 300 shares of $10 par value common stock and 100 shares of $50 par value preferred stock for a lump sum of $14,200. The common stock has a market value of $20 per share, and the value of the preferred stock is unknown.

Journal entry (Incremental):

Account	Debit	Credit
Cash	14,200	
Preferred stock (100 x $50)		5,000
Additional paid-in capital-preferred		3,200
Common stock (300 x $10)		3,000
Additional paid-in capital-common		3,000

Corporate Capital

Stock Issued in Noncash Transactions

The general rule: Companies should record stock issued for services or property other than cash at either the:

- fair value of the stock issued or
- fair value of the noncash consideration received,

whichever is more clearly determinable.

Corporate Capital

E15-2: Kathleen Battle Corporation was organized on January 1, 2007. It is authorized to issue 500,000 shares of no par common stock with a stated value of $1 per share. Prepare the journal entry to record the following.

April 1 Issued 24,000 shares of common stock for land. The asking price of the land was $90,000; the fair market value of the land was $80,000.

Account	Debit	Credit
Land	80,000	
Common stock (24,000 x $1)		24,000
Additional paid-in capital		56,000

LO 3 Explain the accounting procedures for issuing shares of stock.

Corporate Capital

E15-2: Kathleen Battle Corporation was organized on January 1, 2007. It is authorized to issue 500,000 shares of no par common stock with a stated value of $1 per share. Prepare the journal entry to record the following.

Aug. 1 Issued 10,000 shares of common stock to attorneys in payment of their bill of $50,000 for services rendered in helping the company organize.

	Debit	Credit
Organization expense	50,000	
Common stock (10,000 x $1)		10,000
Additional paid-in capital		40,000

LO 3 Explain the accounting procedures for issuing shares of stock.

Corporate Capital

Costs of Issuing Stock

Direct costs incurred to sell stock, such as

- underwriting costs,
- accounting and legal fees,
- printing costs, and
- taxes,

should be reported as a **reduction** of the amounts paid in (additional paid-in capital).

LO 3 Explain the accounting procedures for issuing shares of stock.

Corporate Capital

Reacquisition of Shares

Corporations purchase their outstanding stock:

- To provide tax-efficient distributions of excess cash to shareholders.
- To increase earnings per share and return on equity.
- To provide stock for employee stock compensation contracts or to meet potential merger needs.
- To thwart takeover attempts or to reduce the number of stockholders.
- To make a market in the stock.

LO 4 Describe the accounting for treasury stock.

Corporate Capital

Purchase of Treasury Stock

Two acceptable methods:

- Cost method (more widely used).
- Par or Stated value method.

Treasury stock, reduces stockholders' equity.

Corporate Capital

Illustration: UC Company originally issued 15,000 shares of $1 par, common stock for $25 per share. Record the journal entry for the following transaction:

April 1st the company re-acquired 1,000 shares for $28 per share.

Treasury stock (1,000 x $28)	28,000	
Cash		28,000

LO 4 Describe the accounting for treasury stock.

Corporate Capital

Sale of Treasury Stock

- Above Cost
- Below Cost

Both increase total assets and stockholders' equity.

LO 4 Describe the accounting for treasury stock.

Corporate Capital

Illustration: UC Company originally issued 15,000 shares of $1 par, common stock for $25 per share. Record the journal entry for the following transaction:

June 1st Sold 500 shares of its Treasury Stock for $30 per share.

Account	Debit	Credit
Cash (500 x $30)	15,000	
Treasury stock (500 x $28)		14,000
Paid-in capital treasury stock		1,000

Corporate Capital

Illustration: UC Company originally issued 15,000 shares of $1 par, common stock for $25 per share. Record the journal entry for the following transaction:

Oct. 15th Sold 300 shares of its Treasury Stock for $9 per share.

Account	Debit	Credit
Cash (300 x $9)	2,700	
Treasury stock (300 x $28)		8,400
Paid-in capital treasury stock	1,000	
Retained earnings	4,700	

Limited to balance on hand

LO 4 Describe the accounting for treasury stock.

Corporate Capital

Illustration: UC Company originally issued 15,000 shares of $1 par, common stock for $25 per share. Record the journal entry for the following transaction:

Oct. 30th Sold 100 shares of its Treasury Stock for $11 per share.

	Debit	Credit
Cash (100 x $11)	1,100	
Treasury stock (100 x $28)		2,800
Retained earnings	1,700	

LO 4 Describe the accounting for treasury stock.

Corporate Capital

Illustration: UC Company originally issued 15,000 shares of $1 par, common stock for $25 per share. Record the journal entry for the following transaction:

Nov. 10th Retired remaining 100 shares of its Treasury Stock.

Common stock (100 x $1)	100	
Paid-in capital common (100 x $24)	2,400	
Treasury stock (100 x $28)		2,800
Retained earnings	300	

LO 4 Describe the accounting for treasury stock.

Corporate Capital

Illustration 15-4

Stockholders' Equity with No Treasury Stock

Stockholders' equity	
Paid-in capital	
Common stock, $1 par value, 100,000 shares issued and outstanding	$ 100,000
Additional paid-in capital	900,000
Total paid-in capital	1,000,000
Retained earnings	300,000
Total stockholders' equity	$1,300,000

LO 4 Describe the accounting for treasury stock.

Corporate Capital

Illustration 15-5

Stockholders' Equity with Treasury Stock

Stockholders' equity	
Paid-in capital	
Common stock, $1 par value, 100,000 shares issued and 90,000 outstanding	$ 100,000
Additional paid-in capital	900,000
Total paid-in capital	1,000,000
Retained earnings	300,000
Total paid-in capital and retained earnings	1,300,000
Less: Cost of treasury stock (10,000 shares)	110,000
Total stockholders' equity	$1,190,000

LO 4 Describe the accounting for treasury stock.

Preferred Stock

Features often associated with preferred stock.

1. Preference as to dividends.
2. Preference as to assets in liquidation.
3. Convertible into common stock.
4. Callable at the option of the corporation.
5. Nonvoting.

Preferred Stock

Specific Features of Preferred Stock

- Cumulative
- Participating
- Convertible
- Callable
- Redeemable

A corporation may attach whatever preferences or restrictions, as long as it does not violate its state incorporation law.

Accounting for preferred stock at issuance is similar to that for common stock.

LO 5 Explain the accounting for and reporting of preferred stock.

Dividend Policy

Dividend distributions generally are based on accumulated profits (retained earnings).

Few companies pay dividends in amounts equal to their legally available retained earnings. Why?

- Maintain agreements with creditors.
- Meet state incorporation requirements.
- To finance growth or expansion.
- To smooth out dividend payments.
- To build up a cushion against possible losses.

LO 6 Describe the policies used in distributing dividends.

Types of Dividends

1. Cash dividends.
2. Property dividends.
3. Liquidating dividends.
4. Stock dividends.

Dividends require information concerning three dates:

a. Date of declaration
b. Date of record
c. Date of payment

LO 7 Identify the various forms of dividend distributions.

Types of Dividends

Cash Dividends

- Board of directors vote on the declaration of cash dividends.
- A declared cash dividend is a liability.
- Companies do not declare or pay cash dividends on treasury stock.

Cash Dividend

Illustration What would be the journal entries made by a corporation that declared a $50,000 cash dividend on March 10, payable on April 6 to shareholders of record on March 25?

	Debit	Credit
March 10 (Declaration Date)		
Retained earnings	50,000	
Dividends payable		50,000
March 25 (Date of Record)	No entry	
April 6 (Payment Date)		
Dividends payable	50,000	
Cash		50,000

LO 7 Identify the various forms of dividend distributions.

Types of Dividends

Property Dividends

- Dividends payable in assets other than cash.
- Restate at fair value the property it will distribute, recognizing any gain or loss.

Property Dividend

Illustration A dividend is declared Jan. 5th and paid Jan. 25th, in bonds held as an investment; the bonds have a book value of $100,000 and a fair market value of $135,000.

	Debit	Credit
<u>Date of Declaration</u>		
Investment in bonds	35,000	
Gain on investment		35,000
and		
Retained earnings	135,000	
Property dividend payable		135,000
<u>Date of Issuance</u>		
Property dividend payable	135,000	
Investment in bonds		135,000

LO 7 Identify the various forms of dividend distributions.

Types of Dividends

Liquidating Dividends

- Any dividend not based on earnings reduces corporate paid-in capital.

LO 7 Identify the various forms of dividend distributions.

Liquidating Dividend

BE15-12 Radical Rex Mining Company declared, on April 20, a dividend of $700,000 payable on June 1. Of this amount, $125,000 is a return of capital. Prepare the April 20 and June 1 entries for Radical Rex.

	Debit	Credit
<u>April 20 (Declaration Date)</u>		
Retained earnings	575,000	
Additional paid-in capital	125,000	
Dividends payable		700,000
<u>June 1 (Payment Date)</u>		
Dividends payable	700,000	
Cash		700,000

LO 7 Identify the various forms of dividend distributions.

Types of Dividends

Stock Dividends

- Issuance of own stock to stockholders on a pro rata basis, without receiving any consideration.
- When stock dividend is less than 20–25 percent of the common shares outstanding, company transfers **fair market value** from retained earnings (**small stock dividend**).

Stock Dividend

Illustration HH Inc. has 5,000 shares issued and outstanding. The per share par value is $1, book value $32 and market value is $40.

10% stock dividend is declared	Debit	Credit
Retained earnings	20,000	
Common stock dividend distributable		500
Additional paid-in capital		19,500

Stock issued	Debit	Credit
Common stock div. distributable	500	
Common stock		500

LO 8 Explain the accounting for small and large stock dividends, and for stock splits.

Types of Dividends

Stock Split

- To reduce the market value of shares.
- No entry recorded for a stock split.
- Decrease par value and increased number of shares.

Stock Dividend

Illustration **HH Inc. has 5,000 shares issued and outstanding. The per share par value is $1, book value $32 and market value is $40.**

2 for 1 Stock Split

No Entry -- Disclosure that par is now $.50 and shares outstanding are 10,000.

Types of Dividends

Stock Split and Stock Dividend Differentiated

- If the stock dividend is large, it has the same effect on market price as a stock split.
- A stock dividend of more than 20–25 percent of the number of shares previously outstanding is called a **large stock dividend**.
- With a large stock dividend, transfer from retained earnings to capital stock the **par value** of the stock issued.

LO 8 Explain the accounting for small and large stock dividends, and for stock splits.

Stock Dividend

Illustration HH Inc. has 5,000 shares issued and outstanding. The per share par value is $1, book value $32 and market value is $40.

50% stock dividend is declared	Debit	Credit
Retained earnings	2,500	
Common stock dividend distributable		2,500
Stock issued		
Common stock dividend distributable	2,500	
Common stock		2,500

LO 8 Explain the accounting for small and large stock dividends, and for stock splits.

Presentation and Analysis of Stockholders' Equity

Presentation

Balance Sheet

FROST CORPORATION
STOCKHOLDERS' EQUITY
DECEMBER 31, 2007

Illustration 15-13

Capital stock		
Preferred stock, $100 par value, 7% cumulative, 100,000 shares authorized, 30,000 shares issued and outstanding		$ 3,000,000
Common stock, no par, stated value $10 per share, 500,000 shares authorized, 400,000 shares issued		4,000,000
Common stock dividend distributable, 20,000 shares		200,000
Total capital stock		7,200,000
Additional paid-in capital[21]		
Excess over par—preferred	$150,000	
Excess over stated value—common	840,000	990,000
Total paid-in capital		8,190,000
Retained earnings		4,360,000
Total paid-in capital and retained earnings		12,550,000
Less: Cost of treasury stock (2,000 shares, common)		(190,000)
Accumulated other comprehensive loss[22]		(360,000)
Total stockholders' equity		$12,000,000

LO 9 Indicate how to present and analyze stockholders' equity.

Presentation and Analysis of Stockholders' Equity

Presentation Statement of Stockholders' Equity

Illustration 15-14

(in millions, except number of shares in thousands)	Common Stock Number of Shares	Common Stock Par Value	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total
Balance October 31, 2003	3,042,761	$30	$24,587	$13,332	$ (203)	$37,746
Net earnings				3,497		3,497
Net unrealized loss on available-for-sale securities					(20)	(20)
Net unrealized loss on cash flow hedges					(28)	(28)
Minimum pension liability, net of taxes					(13)	(13)
Cumulative translation adjustment					21	21
Comprehensive income						3,457
Assumption of stock options in connection with business acquisitions			15			15
Issuance of common stock in connection with employee stock plans and other	40,467		592			592
Repurchases of common stock	(172,468)	(1)	(3,100)	(208)		(3,309)
Tax benefit from employee stock plans			35			35
Dividends				(972)		(972)
Balance October 31, 2004	2,910,760	$29	$22,129	$15,649	$(243)	$37,564

LO 9 Indicate how to present and analyze stockholders' equity.

Presentation and Analysis of Stockholders' Equity

Analysis

$$\text{Rate of Return on Common Stock Equity} = \frac{\text{Net income} - \text{Preferred dividends}}{\text{Average common stockholders' equity}}$$

Ratio shows how many dollars of net income the company earned for each dollar invested by the owners.

Presentation and Analysis of Stockholders' Equity

Analysis

$$\textbf{Payout Ratio} = \frac{\text{Cash dividends}}{\text{Net income} - \text{Preferred dividends}}$$

It is important to some investors that the payout be sufficiently high to provide a good yield on the stock.

LO 9 Indicate how to present and analyze stockholders' equity.

Presentation and Analysis of Stockholders' Equity

Analysis

$$\text{Book Value Per Share} = \frac{\text{Common stockholders' equity}}{\text{Outstanding shares}}$$

The amount each share would receive if the company were liquidated on the basis of amounts reported on the balance sheet.

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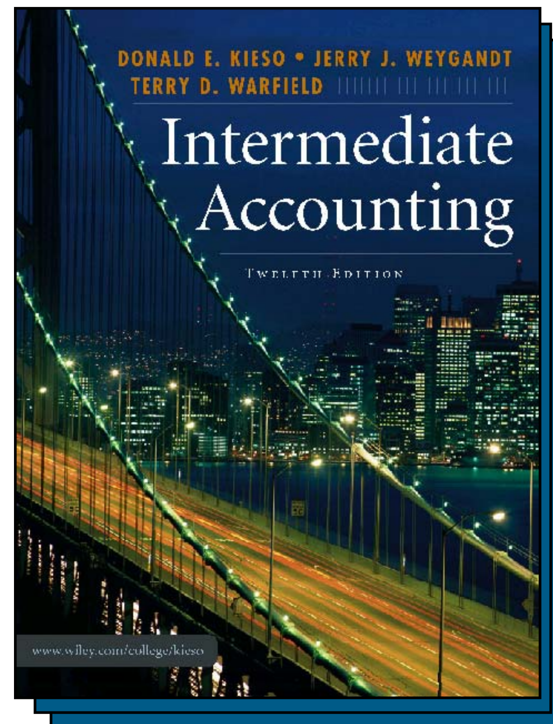
Dilutive Securities and Earnings Per Share

Chapter 16



Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield

Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Describe the accounting for the issuance, conversion, and retirement of convertible securities.
2. Explain the accounting for convertible preferred stock.
3. Contrast the accounting for stock warrants and for stock warrants issued with other securities.
4. Describe the accounting for stock compensation plans under generally accepted accounting principles.
5. Discuss the controversy involving stock compensation plans.
6. Compute earnings per share in a simple capital structure.
7. Compute earnings per share in a complex capital structure.

Dilutive Securities and Earnings Per Share

Dilutive Securities and Compensation Plans

- Debt and equity
- Convertible debt
- Convertible preferred stock
- Stock warrants
- Stock compensation plans

Computing Earnings Per Share

- Simple capital structure
- Complex capital structure

Debt and Equity

Should companies report these instruments as a liability or equity.

Stock Options	Convertible Securities	Preferred Stock

Accounting for Convertible Debt

Bonds which can be converted into other corporate securities are called **convertible bonds.**

Benefit of a Bond (guaranteed interest)

+

Privilege of Exchanging it for Stock

(at the holder's option)

LO 1 Describe the accounting for the issuance, conversion, and retirement of convertible securities.

Accounting for Convertible Debt

Two main reasons corporations issue convertibles:

Desire to raise equity capital without giving up more ownership control than necessary.

Obtain common stock financing at cheaper rates.

Accounting for Convertible Debt

At Time of Issuance

Convertible bonds recorded as straight debt issue, with any discount or premium amortized over the term of the debt.

Accounting for Convertible Debt

BE16-1: Gall Inc. issued $5,000,000 par value, 7% convertible bonds at 99 for cash. If the bonds had not included the conversion feature, they would have sold for 95.

Journal entry at date of issuance:

Cash	4,950,000	
Discount on bonds payable	50,000	
Bonds payable		5,000,000

($5,000,000 x 99% = $4,950,000)

Accounting for Convertible Debt

At Time of Conversion

Companies use the **book value method** when converting bonds.

When the debt holder converts the debt to equity, the issuing company recognizes no gain or loss upon conversion.

LO 1 Describe the accounting for the issuance, conversion, and retirement of convertible securities.

Accounting for Convertible Debt

BE16-2: Yuen Corp. has outstanding 1,000, $1,000 bonds, each convertible into 50 shares of $10 par value common stock. The bonds are converted on December 31, 2008, when the unamortized discount is $30,000 and the market price of the stock is $21 per share.

Journal entry at conversion:

Account	Debit	Credit
Bonds payable	1,000,000	
Discount on bonds payable		30,000
Common stock (50,000 x $10)		500,000
Additional paid-in capital		470,000

LO 1 Describe the accounting for the issuance, conversion, and retirement of convertible securities.

Accounting for Convertible Debt

Induced Conversion

- Issuer wishes to encourage prompt conversion.
- Issuer offers additional consideration, called a "sweetener."
- Sweetener is an expense of the period.

Accounting for Convertible Debt

BE16-2: Yuen Corp. has outstanding 1,000, $1,000 bonds, each convertible into 50 shares of $10 par value common stock. Assume Yuen wanted to reduce its annual interest cost and agreed to pay the bond holders $70,000 to convert.

Journal entry at conversion:

	Debit	Credit
Bonds payable	1,000,000	
Discount on bonds payable		30,000
Common stock (50,000 x $10)		500,000
Additional paid-in capital		470,000
Debt conversion expense	**70,000**	
Cash		**70,000**

Same

LO 1 Describe the accounting for the issuance, conversion, and retirement of convertible securities.

Accounting for Convertible Debt

Retirement of Convertible Debt

- Recognized same as retiring debt that is not convertible.
- Difference between the acquisition price and carrying amount should be reported as gain or loss in the income statement.

Convertible Preferred Stock

Convertible preferred stock includes an option for the holder to convert preferred shares into a fixed number of common shares.

- Convertible preferred stock is considered part of stockholders' equity.
- No gain or loss recognized when converted.
- Use book value method.

LO 2 Explain the accounting for convertible preferred stock.

Convertible Preferred Stock

BE16-3: Gilbert Inc. issued 2,000 shares of $10 par value common stock upon conversion of 1,000 shares of $50 par value preferred stock. The preferred stock was originally issued at $55 per share. The common stock is trading at $26 per share at the time of conversion.

Journal entry to record conversion:

Account	Debit	Credit
Preferred stock	50,000	
Paid-in capital – Preferred stock	5,000	
Common stock (2,000 x $10 par)		20,000
Paid-in capital – Common stock		35,000

LO 2 Explain the accounting for convertible preferred stock.

Stock Warrants

- Certificates entitling the holder to acquire shares of stock at a certain price within a stated period.
- Normally arise:
  1. To make a security more attractive
  2. As evidence of preemptive right
  3. As compensation to employees

LO 3 Contrast the accounting for stock warrants and for stock warrants issued with other securities.

Stock Warrants

Issued with Other Securities

Detachable Stock Warrants:

- Proceeds allocated between the two securities.
- Allocation based on fair market values.
- Two methods of allocation:

  (1) the proportional method and

  (2) the incremental method

LO 3 Contrast the accounting for stock warrants and for stock warrants issued with other securities.

Stock Warrants

Proportional Method

Determine:

1. value of the bonds without the warrants, and
2. value of the warrants.

The **proportional method** allocates the proceeds using the proportion of the two amounts, based on fair values.

Stock Warrants

BE16-4: Margolf Corp. issued 1,000, $1,000 bonds at 101. Each bond was issued with one detachable stock warrant. After issuance, the bonds were selling in the market at 98, and the warrants had a market value of $40. Use the proportional method to record the issuance of the bonds and warrants.

	Number		Amount		Price		Total	Percent
Bonds	1,000	x	$ 1,000	x	$ 0.98	=	$ 980,000	96%
Warrants	1,000	x			$ 40	=	40,000	4%
			Total Fair Market Value				$ 1,020,000	100%

Allocation:	Bonds	Warrants
Issue price	$ 1,010,000	$ 1,010,000
Allocation %	96%	4%
Total	$ 970,392	$ 39,608

Bond face value	$ 1,000,000
Allocated FMV	970,392
Discount	$ 29,608

LO 3 Contrast the accounting for stock warrants and for stock warrants issued with other securities.

Stock Warrants

BE16-4: Margolf Corp. issued 1,000, $1,000 bonds at 101. Each bond was issued with one detachable stock warrant. After issuance, the bonds were selling in the market at 98, and the warrants had a market value of $40. Use the proportional method to record the issuance of the bonds and warrants.

Account	Debit	Credit
Cash	1,010,000	
Discount on bonds payable	29,608	
Bonds payable		1,000,000
Paid-in capital – Stock warrants		39,608

LO 3 Contrast the accounting for stock warrants and for stock warrants issued with other securities.

Stock Warrants

Incremental Method

Where a company cannot determine the fair value of either the warrants or the bonds.

- Use the security for which fair value can determined.
- Allocate the remainder of the purchase price to the security for which it does not know fair value.

Stock Warrants

BE16-5: McCarthy Inc. issued 1,000, $1,000 bonds at 101. Each bond was issued with one detachable stock warrant. After issuance, the bonds were selling in the market at 98. The market price of the warrants, without the bonds, cannot be determined. Use the incremental method to record the issuance of the bonds and warrants.

	Number		Amount		Price		Total	Percent
Bonds	1,000	x	$ 1,000	x	$ 0.98	=	$ 980,000	100%
Warrants	1,000	x				=	-	0%
			Total Fair Market Value				$ 980,000	100%

Allocation:	Bonds
Issue price	$ 1,010,000
Bonds	980,000
Warrants	$ 30,000

Bond face value	$ 1,000,000
Allocated FMV	980,000
Discount	$ 20,000

LO 3 Contrast the accounting for stock warrants and for stock warrants issued with other securities.

Stock Warrants

BE16-5: McCarthy Inc. issued 1,000, $1,000 bonds at 101. Each bond was issued with one detachable stock warrant. After issuance, the bonds were selling in the market at 98. The market price of the warrants, without the bonds, cannot be determined. Use the incremental method to record the issuance of the bonds and warrants.

Cash	1,010,000	
Discount on bonds payable	20,000	
Bonds payable		1,000,000
Paid-in capital – Stock warrants		30,000

Stock Warrants

Conceptual Questions

Detachable warrants involves *two* securities,

- a debt security,
- a warrant to purchase common stock.

Nondetachable warrants

- no allocation of proceeds between the bonds and the warrants,
- companies record the entire proceeds as debt.

Stock Warrants

Rights to Subscribe to Additional Shares

Stock Rights - existing stockholders have the right (preemptive privilege) to purchase newly issued shares in proportion to their holdings.

- Price is normally less than current market value.
- Companies make only a memorandum entry.

Stock Compensation Plans

Stock Option - gives key employees option to purchase stock at a given price over extended period of time.

Effective compensation programs are ones that:

1. motivate employees,
2. help retain executives and recruit new talent,
3. base compensation on performance,
4. maximize employee's after-tax benefit, and
5. use performance criteria over which employee has control.

Stock Compensation Plans

The Major Reporting Issue

New FASB standard requires companies to recognize compensation cost using the fair-value method.*

Under **fair-value method**, companies use acceptable option-pricing models to value the options at the date of grant.

*"Accounting for Stock-Based Compensation," *Statement of Financial Accounting Standards No. 123* (Norwalk, Conn: FASB, 1995); and "Share-Based Payment," *Statement of Financial Accounting Standard No. 123(R)* (Norwalk, Conn: FASB, 2004).

LO 4 Describe the accounting for stock compensation plans under generally accepted accounting principles.

Stock Compensation Plans

Accounting for Stock Compensation

Two main accounting issues:

1. How to determine compensation expense.
2. Over what periods to allocate compensation expense.

LO 4 Describe the accounting for stock compensation plans under generally accepted accounting principles.

Stock Compensation Plans

Determining Expense

- Compensation expense based on the fair value of the options expected to vest on the date the options are granted to the employee(s) (i.e., the grant date).

Allocating Compensation Expense

- Over the periods in which employees perform the service—the **service period**.

LO 4 Describe the accounting for stock compensation plans under generally accepted accounting principles.

Stock Compensation Plans

BE16-12 On January 1, 2006, Nichols Corporation granted 10,000 options to key executives. Each option allows the executive to purchase one share of Nichols' $5 par value common stock at a price of $20 per share. The options were exercisable within a 2-year period beginning January 1, 2008, if the grantee is still employed by the company at the time of the exercise. On the grant date, Nichols' stock was trading at $25 per share, and a fair value option-pricing model determines total compensation to be $400,000. On May 1, 2008, 8,000 options were exercised when the market price of Nichols' stock was $30 per share. The remaining options lapsed in 2010 because executives decided not to exercise their options.

LO 4 Describe the accounting for stock compensation plans under generally accepted accounting principles.

Stock Compensation Plans

BE16-12: Prepare the necessary journal entries related to the stock option plan for the years 2006 through 2010.

1/1/06	No entry on date of grant.		
12/31/06	Compensation expense	200,000	
	Paid-in capital-stock options		200,000
	($400,000 x ½)		
12/31/07	Compensation expense	200,000	
	Paid-in capital-stock options		200,000

LO 4 Describe the accounting for stock compensation plans under generally accepted accounting principles.

Stock Compensation Plans

BE16-12: Prepare the necessary journal entries related to the stock option plan for the years 2006 through 2010.

5/1/08	Cash (8,000 x $20)	160,000	
	Paid-in capital-stock options	320,000	
	Common stock (8,000 x $5)		40,000
	Paid-in capital in excess of par		440,000
	($400,000 x 8,000 / 10,000 = $320,000)		
1/1/10	Paid-in capital-stock options	80,000	
	Paid-in capital-expired options		80,000
	($400,000 – $320,000)		

LO 4 Describe the accounting for stock compensation plans under generally accepted accounting principles.

Stock Compensation Plans

Employee Stock Purchase Plans

Generally permit all employees to purchase stock at a discounted price for a short period of time.

Compensatory unless it satisfies three conditions:

1. Substantially all full-time employees participate on an equitable basis.
2. The discount from market is small.
3. The plan offers no substantive option feature.

Stock Compensation Plans

Debate over Stock Option Accounting

When first proposed, there was considerable opposition to the fair-value approach because it could result in substantial, previously unrecognized compensation expense.

Offsetting such opposition is the need for greater transparency in financial reporting.

LO 5 Discuss the controversy involving stock compensation plans.

Section 2 – Computing Earnings Per Share

Earnings per share indicates the income earned by each share of common stock.

- Companies report earnings per share only for common stock.
- When income statement contains intermediate components of income, companies should disclose earnings per share for each component.

Illustration 16-7

Earnings per share:	
Income from continuing operations	$4.00
Loss from discontinued operations, net of tax	0.60
Income before extraordinary item	3.40
Extraordinary gain, net of tax	1.00
Net income	$4.40

LO 6 Compute earnings per share in a simple capital structure.

Earnings Per Share-Simple Capital Structure

- **Simple Structure**--Only common stock; no potentially dilutive securities.
- **Complex Structure**--Potentially dilutive securities are present.
- **"Dilutive"** means the ability to influence the EPS in a downward direction.

LO 6 Compute earnings per share in a simple capital structure.

Earnings Per Share-Simple Capital Structure

Preferred Stock Dividends

Subtracts the current year preferred stock dividend from net income to arrive at income available to common stockholders.

Illustration 16-8

$$\text{Earnings per Share} = \frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Weighted-Average Number of Shares Outstanding}}$$

Preferred dividends are subtracted on cumulative preferred stock, whether declared or not.

Earnings Per Share-Simple Capital Structure

Weighted-Average Number of Shares

Companies must weight the shares by the fraction of the period they are outstanding.

Stock dividends or **stock splits:** companies need to restate the shares outstanding before the stock dividend or split.

LO 6 Compute earnings per share in a simple capital structure.

Earnings Per Share-Simple Capital Structure

E16-14 On January 1, 2008, Wilke Corp. had 480,000 shares of common stock outstanding. During 2008, it had the following transactions that affected the common stock account.

February 1	Issued 120 Shares
March 1	Issued a 10% stock dividend
May 1	Acquired 100,000 share of treasury stock
June 1	Issued a 3-for-1 stock split
October 1	Reissued 60,000 shares of treasury stock

Instructions Determine the weighted-average number of shares outstanding as of December 31, 2008.

Earnings Per Share-Simple Capital Structure

Weighted-Average Number of Shares

Date	Change in Shares	Shares Outstanding		Fraction of Year		10% Dividend		3/1 Split	Weighted Average Shares
Jan. 1		480,000	x	1/12	x	110%	x	3	132,000
Feb. 1	120,000	600,000	x	1/12	x	110%	x	3	165,000
Mar. 1	60,000	660,000	x	2/12			x	3	330,000
May 1	(100,000)	560,000	x	1/12			x	3	140,000
June 1	3/1 split	1,680,000	x	4/12			x		560,000
Oct. 1	60,000	1,740,000	x	3/12			x		435,000
									1,762,000

LO 6 Compute earnings per share in a simple capital structure.

Earnings Per Share-Complex Capital Structure

Complex Capital Structure exists when a business has

- convertible securities,
- options, warrants, or other rights

that upon conversion or exercise could **dilute** earnings per share.

Company reports both basic and diluted earnings per share.

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

Diluted EPS includes the effect of all potential dilutive common shares that were outstanding during the period.

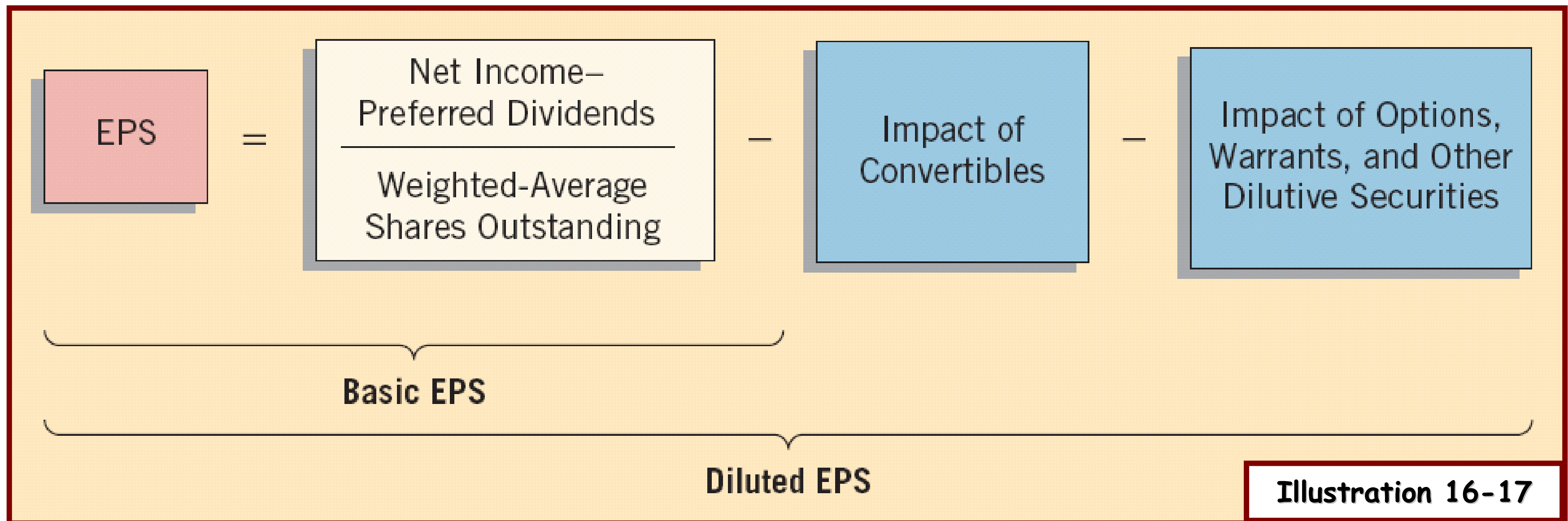


Illustration 16-17

Companies will not report diluted EPS if the securities in their capital structure are antidilutive.

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

Diluted EPS – Convertible Securities

Measure the dilutive effects of potential conversion on EPS using the **if-converted method**.

This method for a convertible bond assumes:

(1) the conversion at the beginning of the period (or at the time of issuance of the security, if issued during the period), and

(2) the elimination of related interest, net of tax.

Earnings Per Share-Complex Capital Structure

E16-20 (Convertible Bonds) In 2006 Chirac Enterprises issued, at par, 60, $1,000, 8% bonds, each convertible into 100 shares of common stock. Chirac had revenues of $17,500 and expenses other than interest and taxes of $8,400 for 2007. (Assume that the tax rate is 40%.) Throughout 2007, 2,000 shares of common stock were outstanding; none of the bonds was converted or redeemed.

Instructions

(a) Compute diluted earnings per share for 2007.

(b) Assume same facts as those for Part (a), except the 60 bonds were issued on September 1, 2007 (rather than in 2006), and none have been converted or redeemed.

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

E16-20 (a) Compute diluted earnings per share for 2007.

Calculation of Net Income

Revenues	$ 17,500
Expenses	8,400
Bond interest expense (60 x $1,000 x 8%)	4,800
Income before taxes	4,300
Income taxes (40%)	1,720
Net income	$ 2,580

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

E16-20 (a) Compute diluted earnings per share for 2007.

When calculating **Diluted** EPS, begin with **Basis** EPS.

Basic EPS

$$\frac{\text{Net income} = \$2{,}580}{\text{Weighted average shares} = 2{,}000} = \$1.29$$

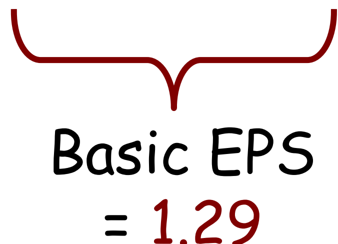
Earnings Per Share-Complex Capital Structure

E16-20 (a) Compute diluted earnings per share for 2007.

When calculating **Diluted** EPS, begin with **Basis** EPS.

Diluted EPS

$$\frac{\$2,580 + \$4,800\,(1 - .40)}{2,000 + 6,000} = \frac{\$5,460}{8,000} = \$.68$$



Basic EPS
= 1.29

Effect on EPS = .48

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

E16-20 (b) Assume bonds were issued on Sept. 1, 2007 .

Calculation of Net Income

Revenues	$	17,500
Expenses		8,400
Bond interest expense (60 x $1,000 x 8% x 4/12)		1,600
Income before taxes		7,500
Income taxes (40%)		3,000
Net income	$	4,500

LO 7 Compute earnings per share in a complex capital structure.

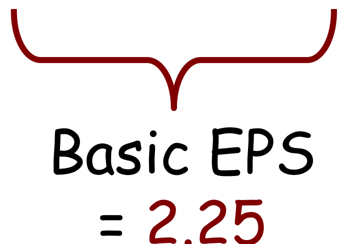
Earnings Per Share-Complex Capital Structure

E16-20 (b) Assume bonds were issued on Sept. 1, 2007 .

When calculating **Diluted** EPS, begin with **Basis** EPS.

Diluted EPS

$$\frac{\$4,500 \;+\; \$1,600\,(1 - .40)}{2,000 \;+\; 6,000 \times 4/12 \text{ yr.}} = \frac{\$5,460}{4,000} = \$1.37$$



LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

P16-7 **(Variation-Convertible Preferred Stock)** Prior to 2007, Prancer Company issued 30,000 shares of 6% convertible, cumulative preferred stock, $100 par value. Each share is convertible into 5 shares of common stock. Net income for 2007 was $1,200,000. There were 600,000 common shares outstanding during 2007. There were no changes during 2007 in the number of common or preferred shares outstanding.

Instructions

(a) Compute diluted earnings per share for 2007.

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

P16-7 (a) Compute diluted earnings per share for 2007.

When calculating **Diluted** EPS, begin with **Basis** EPS.

Basic EPS

$$\frac{\textbf{Net income } \$1{,}200{,}000 - \textbf{Pfd. Div. } \$180{,}000^{*}}{\textbf{Weighted average shares} = 600{,}000} = \$1.70$$

* 30,000 shares x $100 par x 6% = $180,000 dividend

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

P16-7 (a) Compute diluted earnings per share for 2007.

When calculating **Diluted** EPS, begin with **Basis** EPS.

Diluted EPS

$$\frac{\$1{,}200{,}000 - \$180{,}000 + \$180{,}000}{600{,}000 + 150{,}000^{*}} = \frac{\$1{,}200{,}000}{750{,}000} = \$1.60$$

Basic EPS = 1.70

Effect on EPS = 1.20

*(30,000 x 5)

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

P16-7 (a) Compute diluted earnings per share for 2007 assuming each share of preferred is convertible into 3 shares of common stock.

Diluted EPS

$$\frac{\$1,200,000 - \$180,000 + \$180,000}{600,000 + 90,000^{*}} = \frac{\$1,200,000}{750,000} = \$1.74$$

Basic EPS = 1.70

Effect on EPS = 2.00

*(30,000 x 3)

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

P16-7 (a) Compute diluted earnings per share for 2007 assuming each share of preferred is convertible into 3 shares of common stock.

Diluted EPS | **Basic = Diluted EPS**

$$\frac{\$1{,}200{,}000 - \$180{,}000 + \$180{,}000}{600{,}000 + 90{,}000^{*}} = \frac{\$1{,}200{,}000}{750{,}000} = \$1.70$$

(The + $180,000 and + 90,000* terms are crossed out and marked **Antidilutive**.)

Basic EPS = 1.70

Effect on EPS = 2.00

*(30,000 x 3)

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

Diluted EPS – Options and Warrants

Measure the dilutive effects of potential conversion using the **treasury-stock method**.

This method assumes:

(1) company exercises the options or warrants at the beginning of the year (or date of issue if later), and

(2) that it uses those proceeds to purchase common stock for the treasury.

Earnings Per Share-Complex Capital Structure

E16-24 (EPS with Options) Venzuela Company's net income for 2007 is $50,000. The only potentially dilutive securities outstanding were 1,000 options issued during 2006, each exercisable for one share at $6. None has been exercised, and 10,000 shares of common were outstanding during 2007. The average market price of the stock during 2007 was $20.

Instructions

(a) Compute diluted earnings per share.

(b) Assume the 1,000 options were issued on October 1, 2007 (rather than in 2006). The average market price during the last 3 months of 2007 was $20.

Earnings Per Share-Complex Capital Structure

E16-24 (a) Compute diluted earnings per share for 2007.

Treasury-Stock Method

Proceeds if shares issued (1,000 x $6)		$	6,000
Purchase price for treasury shares	÷	$	20
Shares assumed purchased			300
Shares assumed issued			1,000
Incremental share increase			700

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

E16-24 (a) Compute diluted earnings per share for 2007.

When calculating **Diluted** EPS, begin with **Basis** EPS.

Diluted EPS

$$\frac{\$50,000 \quad + \quad}{10,000 \quad + \quad 700} = \frac{\$50,000}{10,700} = \$4.67$$

Basic EPS = 5.00 (under $50,000 / 10,000)

Options (under 700)

LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

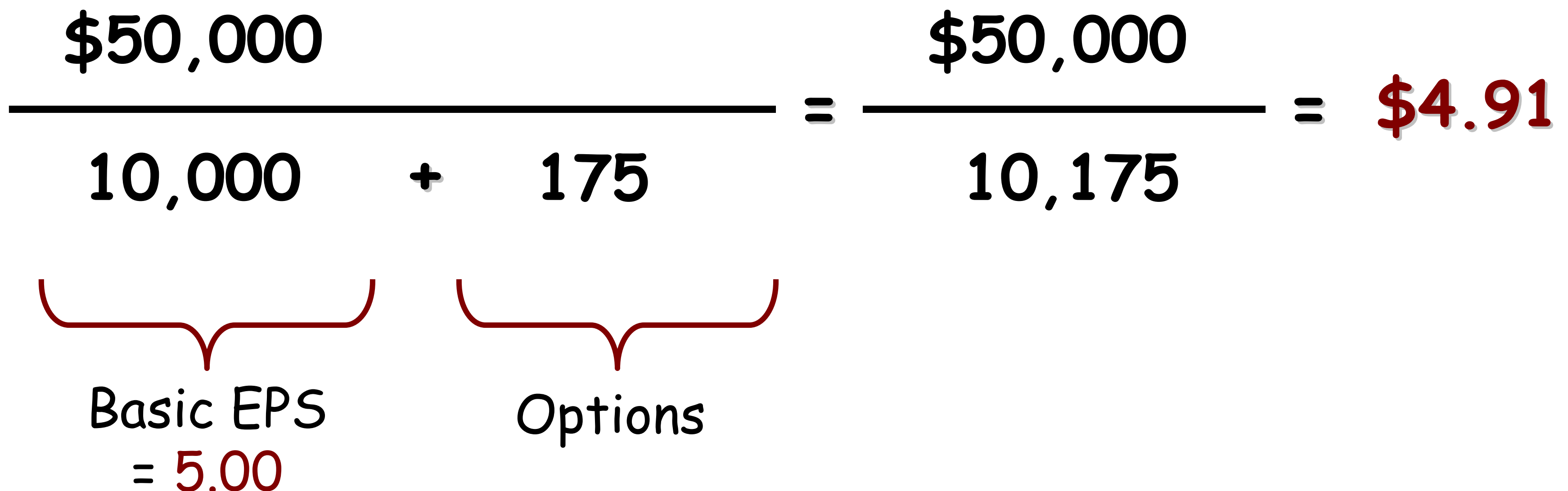
E16-24 (b) Compute diluted earnings per share assuming the 1,000 options were issued on October 1, 2007.

Treasury-Stock Method

Proceeds if shares issued (1,000 x $6)		$	6,000
Purchase price for treasury shares	÷	$	20
Shares assumed purchased			300
Shares assumed issued			1,000
Incremental share increase			700
Weight for 3 months assumed outstanding	×		3/12
Weighted incremental share increase			175

Earnings Per Share-Complex Capital Structure

E16-24 (b) Compute diluted earnings per share assuming the 1,000 options were issued on October 1, 2007.



LO 7 Compute earnings per share in a complex capital structure.

Earnings Per Share-Complex Capital Structure

Contingent Issue Agreement

Contingent shares are issued as a result of the:

1. passage of time or
2. attainment of a certain earnings or market price level.

Antidilution Revisited

Ignore antidilutive securities in all calculations and in computing diluted earnings per share.

Earnings Per Share-Complex Capital Structure

EPS Presentation and Disclosure

A company should show per share amounts for:

- income from continuing operations,
- income before extraordinary items, and
- net income.

Per share amounts for a discontinued operation or an extraordinary item should be presented on the face of the income statement or in the notes.

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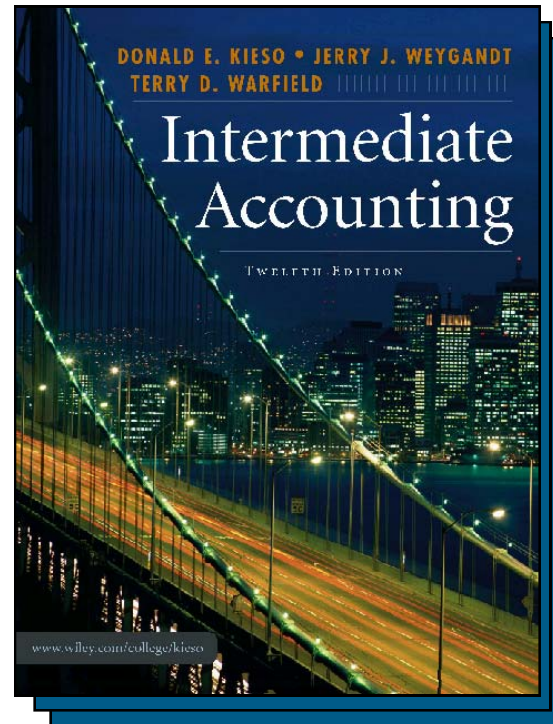
Investments

Chapter 17

Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Identify the three categories of debt securities and describe the accounting and reporting treatment for each category.
2. Understand the procedures for discount and premium amortization on bond investments.
3. Identify the categories of equity securities and describe the accounting and reporting treatment for each category.
4. Explain the equity method of accounting and compare it to the fair value method for equity securities.
5. Describe the disclosure requirements for investments in debt and equity securities.
6. Discuss the accounting for impairments of debt and equity investments.
7. Describe the accounting for transfer of investment securities between categories.

Investments

Investments in Debt Securities

- Held-to-maturity securities
- Available-for-sale securities
- Trading securities

Investments in Equity Securities

- Holdings of less than 20%
- Holdings between 20% and 50%
- Holdings of more than 50%

Other Reporting Issues

- Financial statement presentation
- Impairment of value
- Transfers between categories
- Fair value controversy

Investments

Different motivations for investing:

- To earn a high rate of return.
- To secure certain operating or financing arrangements with another company.

Investments

Companies account for investments based on

- the type of security (debt or equity) and
- their intent with respect to the investment.

Illustration 17-1

Types of Security	Management Intent	Valuation Approach
Debt (Section 1)	No plans to sell	Amortized cost
	Plan to sell	Fair value
Equity (Section 2)	Plan to sell	Fair value
	Exercise some control	Equity method

Investments in Debt Securities

Debt securities (creditor relationship):

Type	Accounting Category
U.S. government securities	Held-to-maturity
Municipal securities	Trading
Corporate bonds	Available-for-sale
Convertible debt	
Commercial paper	

LO 1 Identify the three categories of debt securities and describe the accounting and reporting treatment for each category.

Investments in Debt Securities

Accounting for Debt Securities by Category

Illustration 17-2

Category	Valuation	Unrealized Holding Gains or Losses	Other Income Effects
Held-to-maturity	Amortized cost	Not recognized	Interest when earned; gains and losses from sale.
Trading securities	Fair value	Recognized in net income	Interest when earned; gains and losses from sale.
Available-for-sale	Fair value	Recognized as other comprehensive income and as separate component of stockholders' equity	Interest when earned; gains and losses from sale.

LO 1 Identify the three categories of debt securities and describe the accounting and reporting treatment for each category.

Held-to-Maturity Securities

Classify a debt security as **held-to-maturity** only if it has **both**

(1) the positive intent and

(2) the ability to hold securities to maturity.

Accounted for at **amortized cost**, not fair value.

Amortize premium or discount using the **effective-interest method** unless the straight-line method—yields a similar result.

LO 2 Understand the procedures for discount and premium amortization on bond investments.

Held-to-Maturity Securities

E17-3 (Held-to-Maturity Securities) On January 1, 2006, Hi and Lois Company purchased 12% bonds, having a maturity value of $300,000, for $322,744. The bonds provide the bondholders with a 10% yield. They are dated January 1, 2006, and mature January 1, 2011, with interest receivable December 31 of each year. Hi and Lois Company uses the effective-interest method to allocate unamortized discount or premium. The bonds are classified in the held-to-maturity category.

Instructions (a) Prepare the journal entry at the date of the bond purchase.

LO 2 Understand the procedures for discount and premium amortization on bond investments.

Held-to-Maturity Securities

E17-3 **(a)** Prepare the journal entry at the date of the bond purchase.

January 1, 2006:

Held-to-Maturity Securities	322,744	
Cash		322,744

LO 2 Understand the procedures for discount and premium amortization on bond investments.

Held-to-Maturity Securities

E17-3 (b) Prepare a bond amortization schedule.

Date	Cash Received	10% Interest Revenue	Premium Amortized	Carrying Amount
1/1/06				$ 322,744
12/31/06	$ 36,000	$ 32,274	$ 3,726	319,018
12/31/07	36,000	31,902	4,098	314,920
12/31/08	36,000	31,492	4,508	310,412
12/31/09	36,000	31,041	4,959	305,453
12/31/10	36,000	30,547 *	5,453	300,000

* rounding

LO 2 Understand the procedures for discount and premium amortization on bond investments.

Held-to-Maturity Securities

E17-3 (c) (d) Prepare the journal entry to record the interest received and the amortization for 2006 & 2007.

December 31, 2006:

Account	Debit	Credit
Cash	36,000	
Held-to-Maturity Securities		3,726
Interest Revenue		32,274

December 31, 2007:

Account	Debit	Credit
Cash	36,000	
Held-to-Maturity Securities		4,098
Interest Revenue		31,902

LO 2 Understand the procedures for discount and premium amortization on bond investments.

Available-for-Sale Securities

Companies report available-for-sale securities at

- fair value, with
- unrealized holding gains and losses reported as part of comprehensive income (equity).

Any discount or premium is amortized.

LO 2 Understand the procedures for discount and premium amortization on bond investments.

Available-for-Sale Securities

E17-4 (Available-for-Sale Securities) Assume the same information as in **E17-3** except that the securities are classified as available-for-sale. The fair value of the bonds at December 31 for 2006 and 2007 is $320,500 and $309,000, respectively.

Instructions

(a) Prepare the journal entry at date of bond purchase.

(b) Prepare the journal entries to record the interest received and recognition of fair value for 2006.

(c) Prepare the journal entry to record recognition of fair value for 2007.

Available-for-Sale Securities

E17-4 (a) Prepare the journal entry at date of bond purchase.

January 1, 2006:

Available-for-Sale Securities	322,744	
Cash		322,744

LO 2 Understand the procedures for discount and premium amortization on bond investments.

Available-for-Sale Securities

E17-4 (b) Prepare the journal entries to record the interest received and recognition of fair value for 2006.

December 31, 2006:

Cash	36,000	
Available-for-Sale Securities		3,726
Interest Revenue		32,274
Securities Fair Value Adjustment-AFS	1,482	
Unrealized Holding Gain/Loss		1,482

($320,500 – $319,018 = $1,482)

LO 2 Understand the procedures for discount and premium amortization on bond investments.

Available-for-Sale Securities

E17-4 (c) Prepare the journal entry to record recognition of fair value for 2007.

December 31, 2007:

Unrealized Holding Gain/Loss	7,402	
Securities Fair Value Adjustment-AFS		7,402

Available-for-sale bonds at cost	$	314,920
Available-for-sale bonds at fair value		309,000
Unrealized holding gain (loss)		(5,920)
Previous securities fair value adjustment—Dr.		1,482
Securities fair value adjustment—Cr.	$	(7,402)

LO 2 Understand the procedures for discount and premium amortization on bond investments.

Available-for-Sale Securities

Sale of Available-for-Sale Securities

If company sells bonds before maturity date:

- Must make entry to remove the,
  - Cost in Available-for-Sale Securities and
  - Securities Fair Value Adjustment accounts.
- Any realized gain or loss on sale is reported in the "Other expenses and losses" section of the income statement.

LO 2 Understand the procedures for discount and premium amortization on bond investments.

Trading Securities

Companies report trading securities at

- fair value, with
- unrealized holding gains and losses reported as part of net income.

Any discount or premium is amortized.

Trading Securities

BE17-4 (Trading Securities) Pete Sampras Corporation purchased trading investment bonds for $40,000 at par. At December 31, Sampras received annual interest of $2,000, and the fair value of the bonds was $38,400.

Instructions

(a) Prepare the journal entry for the purchase of the investment.

(b) Prepare the journal entries for the interest received.

(c) Prepare the journal entry for the fair value adjustment.

Trading Securities

BE17-4 Prepare the journal entries for (a) the purchase of the investment, (b) the interest received, and (c) the fair value adjustment.

	Account	Debit	Credit
(a)	Trading securities	40,000	
	Cash		40,000
(b)	Cash	2,000	
	Interest revenue		2,000
(c)	Unrealized Holding Loss - Income	1,600	
	Securities Fair Value Adj.- Trading		1,600

LO 2 Understand the procedures for discount and premium amortization on bond investments.

Investments in Equity Securities

Represent ownership of capital stock.

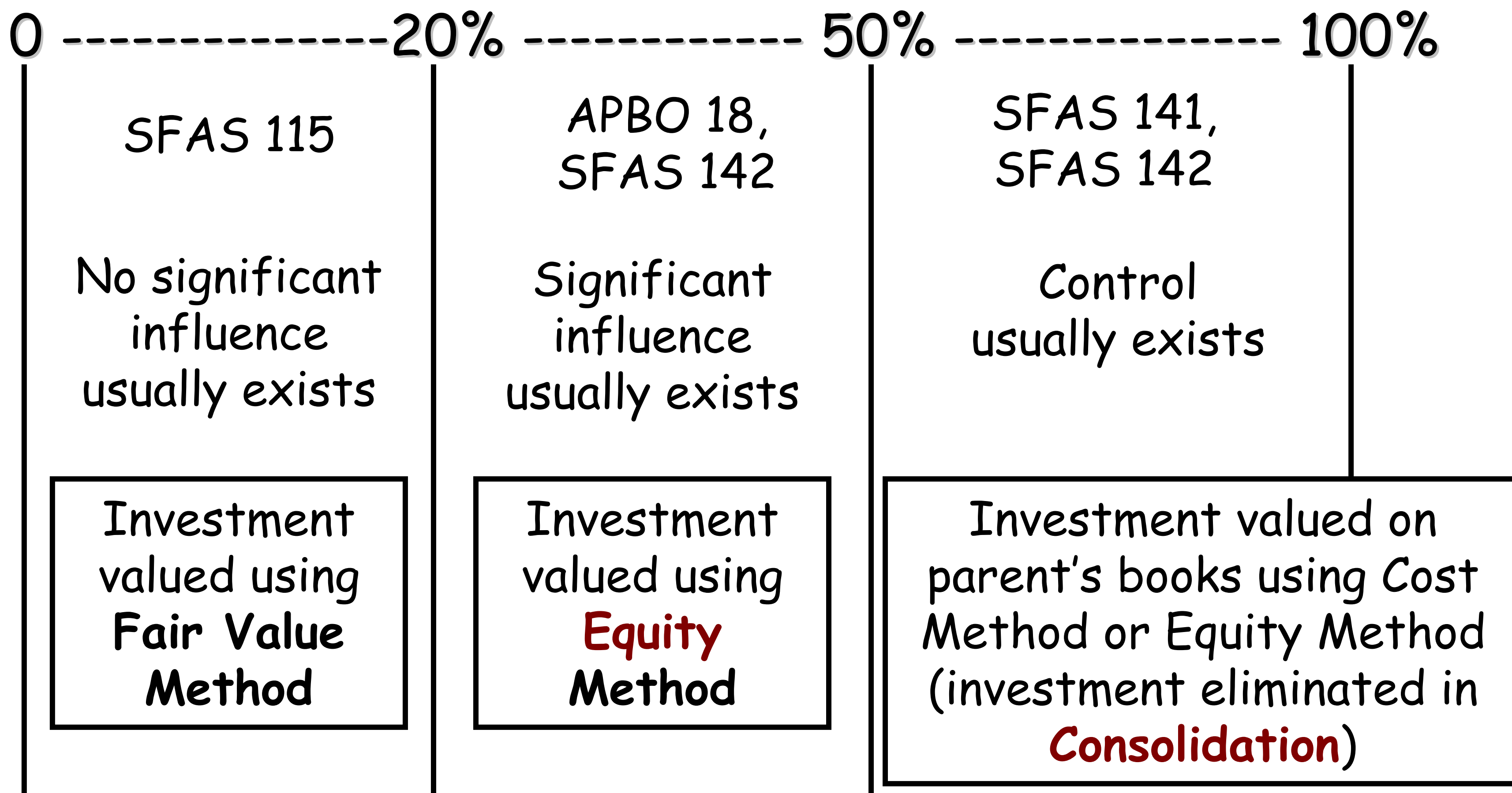
Cost includes:

- price of the security, plus
- broker's commissions and fees related to purchase.

The degree to which one corporation **(investor)** acquires an interest in the common stock of another corporation **(investee)** generally determines the accounting treatment for the investment subsequent to acquisition.

LO 3 Identify the categories of equity securities and describe the accounting and reporting treatment for each category.

Investments in Equity Securities



LO 3 Identify the categories of equity securities and describe the accounting and reporting treatment for each category.

Holdings of Less Than 20%

Accounting Subsequent to Acquisition

Market Price Available	Market Price Unavailable
Value and report the investment using the **fair value method**.	Value and report the investment using the **cost method**.*

* Securities are reported at cost. Dividends are recognized when received and gains or losses only recognized on sale of securities.

LO 3 Identify the categories of equity securities and describe the accounting and reporting treatment for each category.

Holdings of Less Than 20%

Accounting and Reporting – Fair Value Method

Category	Valuation	Unrealized Holding Gains or Losses	Other Income Effects
Holdings less than 20%			
1. Available-for-sale	Fair value	Recognized in "Other comprehensive income" and as separate component of stockholders' equity	Dividends declared; gains and losses from sale.
2. Trading	Fair value	Recognized in net income	Dividends declared; gains and losses from sale.

Because equity securities have no maturity date, companies cannot classify them as held-to-maturity.

LO 3 Identify the categories of equity securities and describe the accounting and reporting treatment for each category.

Holdings of Less Than 20%

P17-6 Loxley Company has the following portfolio of securities at September 30, 2007, its last reporting date.

Trading Securities	Cost	Fair Value
Dan Fogelberg, Inc. common (5,000 shares)	$ 225,000	$ 200,000
Petra, Inc. preferred (3,500 shares)	133,000	140,000
Tim Weisberg Corp. common (1,000 shares)	180,000	179,000

On Oct. 10, 2007, the Fogelberg shares were sold at a price of $54 per share. In addition, 3,000 shares of Los Tigres common stock were acquired at $59.50 per share on Nov. 2, 2007. The Dec. 31, 2007, fair values were: Petra $96,000, Los Tigres $132,000, and the Weisberg common $193,000.

LO 3 Identify the categories of equity securities and describe the accounting and reporting treatment for each category.

Holdings of Less Than 20%

P17-6 Prepare the journal entries to record the sale, purchase, and adjusting entries related to the trading securities in the last quarter of 2007.

Portfolio at September 30, 2007

Trading Securities	Cost	Fair Value
Dan Fogelberg, Inc. common (5,000 shares)	$ 225,000	$ 200,000
Petra, Inc. preferred (3,500 shares)	133,000	140,000
Tim Weisberg Corp. common (1,000 shares)	180,000	179,000
	$ 538,000	$ 519,000

Securities Fair Value Adjustment - credit ($19,000)

LO 3 Identify the categories of equity securities and describe the accounting and reporting treatment for each category.

Holdings of Less Than 20%

P17-6 Prepare the journal entries to record the sale, purchase, and adjusting entries related to the trading securities in the last quarter of 2007.

October 10, 2007 (Fogelberg):

Cash (5,000 x $54)	270,000	
Trading securities		225,000
Gain on sale		45,000

November 2, 2007 (Los Tigres):

Trading securities (3,000 x $59.50)	178,500	
Cash		178,500

Holdings of Less Than 20%

P17-6 Portfolio at December 31, 2007

Trading Securities		Cost		Fair Value		Unrealized Gain (Loss)
Petra, Inc. preferred	$	133,000	$	96,000	$	(37,000)
Tim Weisberg Corp. common		180,000		193,000		13,000
Los Tigres common		178,500		132,000		(46,500)
	$	491,500	$	421,000		(70,500)
Prior securities fair value adjustment balance						(19,000)
Securities fair value adjustment					$	(51,500)

December 31, 2007:

Unrealized holding loss - income	51,500	
Securities fair value adj. - Trading		51,500

LO 3 Identify the categories of equity securities and describe the accounting and reporting treatment for each category.

Holdings of Less Than 20%

P17-6 How would the entries change if the securities were classified as available-for-sale?

The entries would be the same except that the

- Unrealized Holding Gain or Loss—Equity account is used instead of Unrealized Holding Gain or Loss—Income.
- The unrealized holding loss would be deducted from the stockholders' equity section rather than charged to the income statement.

Holdings Between 20% and 50%

An investment (direct or indirect) of 20 percent or more of the voting stock of an investee should lead to a presumption that in the absence of evidence to the contrary, an investor has the ability to exercise **significant influence** over an investee.

In instances of "significant influence," the investor must account for the investment using the **equity method**.

LO 4 Explain the equity method of accounting and compare it to the fair value method for equity securities.

Holdings Between 20% and 50%

Equity Method

Record the investment at cost and subsequently adjust the amount each period for

- the investor's proportionate share of the earnings (losses) and
- dividends received by the investor.

If investor's share of investee's losses exceeds the carrying amount of the investment, the investor ordinarily should discontinue applying the equity method.

Holdings Between 20% and 50%

E17-17 **(Equity Method)** On January 1, 2007, Pennington Corporation purchased 30% of the common shares of Edwards Company for $180,000. During the year, Edwards earned net income of $80,000 and paid dividends of $20,000.

Instructions

Prepare the entries for Pennington to record the purchase and any additional entries related to this investment in Edwards Company in 2007.

LO 4 Explain the equity method of accounting and compare it to the fair value method for equity securities.

Holdings Between 20% and 50%

E17-17 Prepare the entries for Pennington to record the purchase and any additional entries related to this investment in Edwards Company in 2007.

Account	Explanation	Debit	Credit
Investment in Stock		180,000	
Cash			180,000
Investment in Stock		24,000	
Investment Revenue	($80,000 x 30%)		24,000
Cash		6,000	
Investment in Stock	($20,000 x 30%)		6,000

LO 4 Explain the equity method of accounting and compare it to the fair value method for equity securities.

Holdings of More Than 50%

Controlling Interest - When one corporation acquires a voting interest of more than 50 percent in another corporation

- Investor is referred to as the **parent**.
- Investee is referred to as the **subsidiary**.
- Investment in the subsidiary is reported on the parent's books as a long-term investment.
- Parent generally prepares **consolidated financial statements**.

Financial Statement Presentation

Report **trading** securities at aggregate fair value as current assets.

Report **held-to-maturity** and **available-for-sale** securities as current or noncurrent.

- Aggregate fair value, gross unrealized holding gains, gross unrealized losses, amortized cost basis by type (debt and equity), and information about the maturity of debt securities.

LO 5 Describe the disclosure requirements for investments in debt and equity securities.

Financial Statement Presentation

Disclosures Required under the Equity Method

1. Name of each investee and percentage ownership.
2. Accounting policies of the investor.
3. Difference between amount in the investment account and amount of underlying equity in the net assets of the investee.
4. The aggregate value of each identified investment based on quoted market price (if available).
5. When material, present information concerning assets, liabilities, and results of operations of the investees.

Financial Statement Presentation

Reclassification Adjustments

Company needs a reclassification adjustment when it reports

- realized gains or losses as part of net income but also
- shows the amounts as part of other comprehensive income in the current or in previous periods.

Impairment of Value

Impairments of debt and equity securities are

- losses in value that are determined to be other than temporary,
- based on a fair value test, and
- are charged to income.

LO 6 Discuss the accounting for impairments of debt and equity investments.

Transfers Between Categories

Transfers between **Trading** and **Available-for-Sale**

- Security transferred at fair value.
- Unrealized gain or loss at date of transfer increases or decreases stockholders' equity.
- Unrealized gain or loss at date of transfer is recognized in income.

LO 7 Describe the accounting for transfer of investment securities between categories.

Transfers Between Categories

Transfer from **Held-to-Maturity** to **Available-for-Sale**

- Security transferred at fair value.
- Separate component of stockholders' equity is increased or decreased by the unrealized gain or loss at date of transfer .
- NO impact of transfer on net income.

LO 7 Describe the accounting for transfer of investment securities between categories.

Transfers Between Categories

Transfer from **Available-for-Sale** to **Held-to-Maturity**

- Security transferred at fair value.
- Unrealized gain or loss at date of transfer carried as a separate component of stockholders' equity is amortized over the remaining life of the security.
- NO impact of transfer on net income.

LO 7 Describe the accounting for transfer of investment securities between categories.

Fair Value Controversy

Major Unresolved Issues

- Measurement Based on Intent
- Gains Trading
- Liabilities Not Fairly Valued
- Subjectivity of Fair Values

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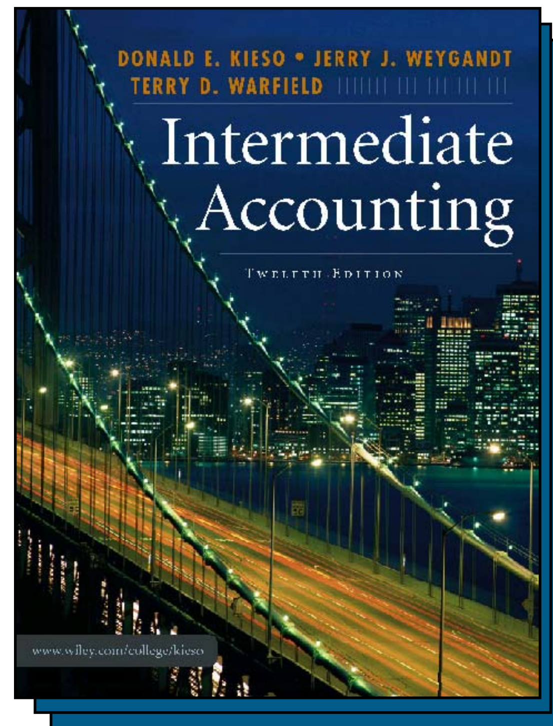
Revenue Recognition

Chapter 18

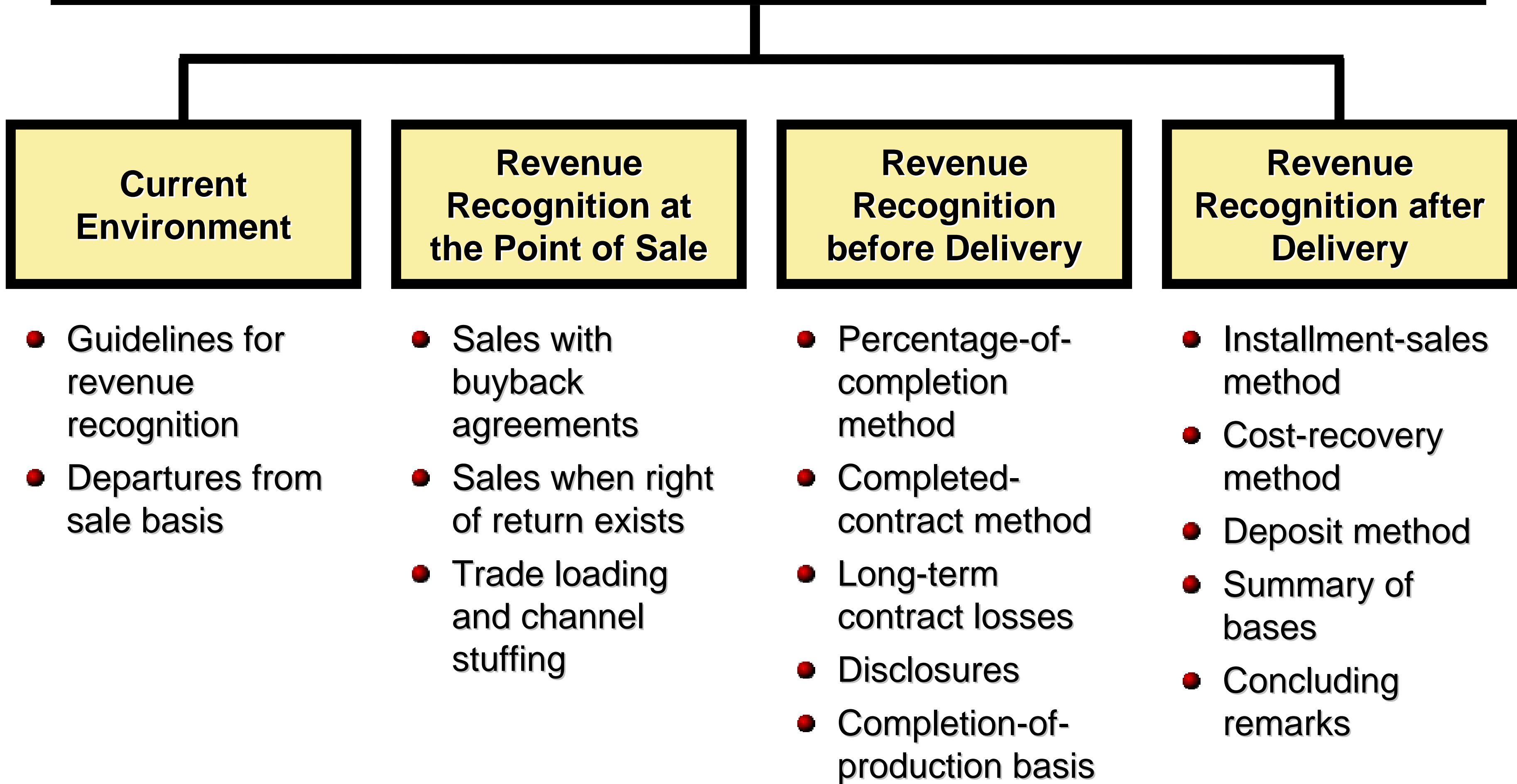
Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Apply the revenue recognition principle.
2. Describe accounting issues for revenue recognition at point of sale.
3. Apply the percentage-of-completion method for long-term contracts.
4. Apply the completed-contract method for long-term contracts.
5. Identify the proper accounting for losses on long-term contracts.
6. Describe the installment-sales method of accounting.
7. Explain the cost-recovery method of accounting.


Revenue Recognition
Current Environment
Revenue Recognition at the Point of Sale
Revenue Recognition before Delivery
Revenue Recognition after Delivery
Guidelines for revenue recognition
Departures from sale basis
Sales with buyback agreements
Sales when right of return exists
Trade loading and channel stuffing
Percentage-of-completion method
Completed-contract method
Long-term contract losses
Disclosures
Completion-of-production basis
Installment-sales method
Cost-recovery method
Deposit method
Summary of bases
Concluding remarks

The Current Environment

Revenue recognition has been the largest source of public company restatements over the past decade.

One study noted restatements of revenue:

- Result in larger drops in market capitalization than other types of restatement.
- Caused eight of the top ten market value losses in a recent year.

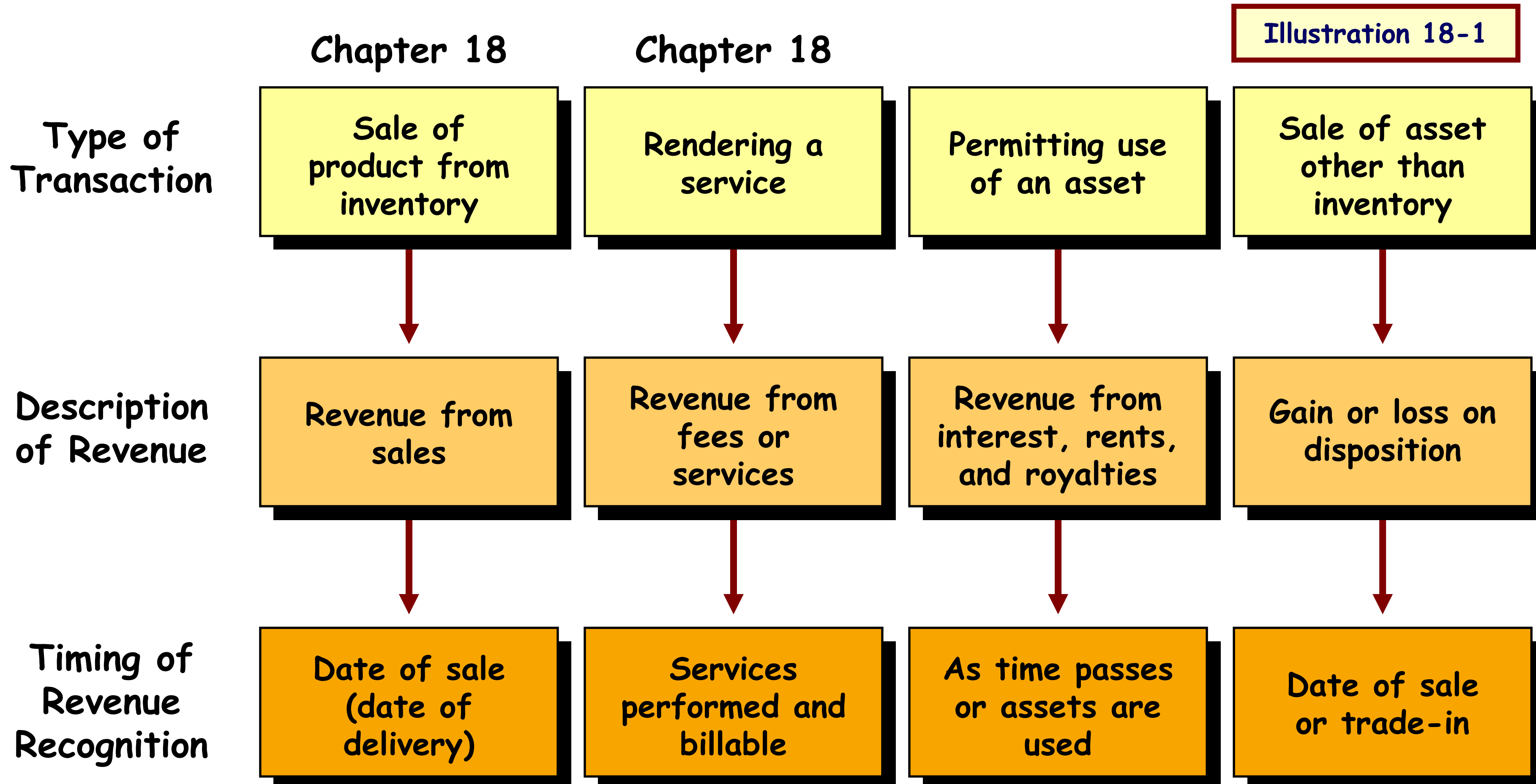
Guidelines for Revenue Recognition

The **revenue recognition principle** provides that companies should recognize revenue

(1) when it is realized or realizable and

(2) when it is earned.

The Current Environment



LO 1 Apply the revenue recognition principle.

The Current Environment

Departures from the Sale Basis

Earlier recognition is appropriate if there is a high degree of certainty about the amount of revenue earned.

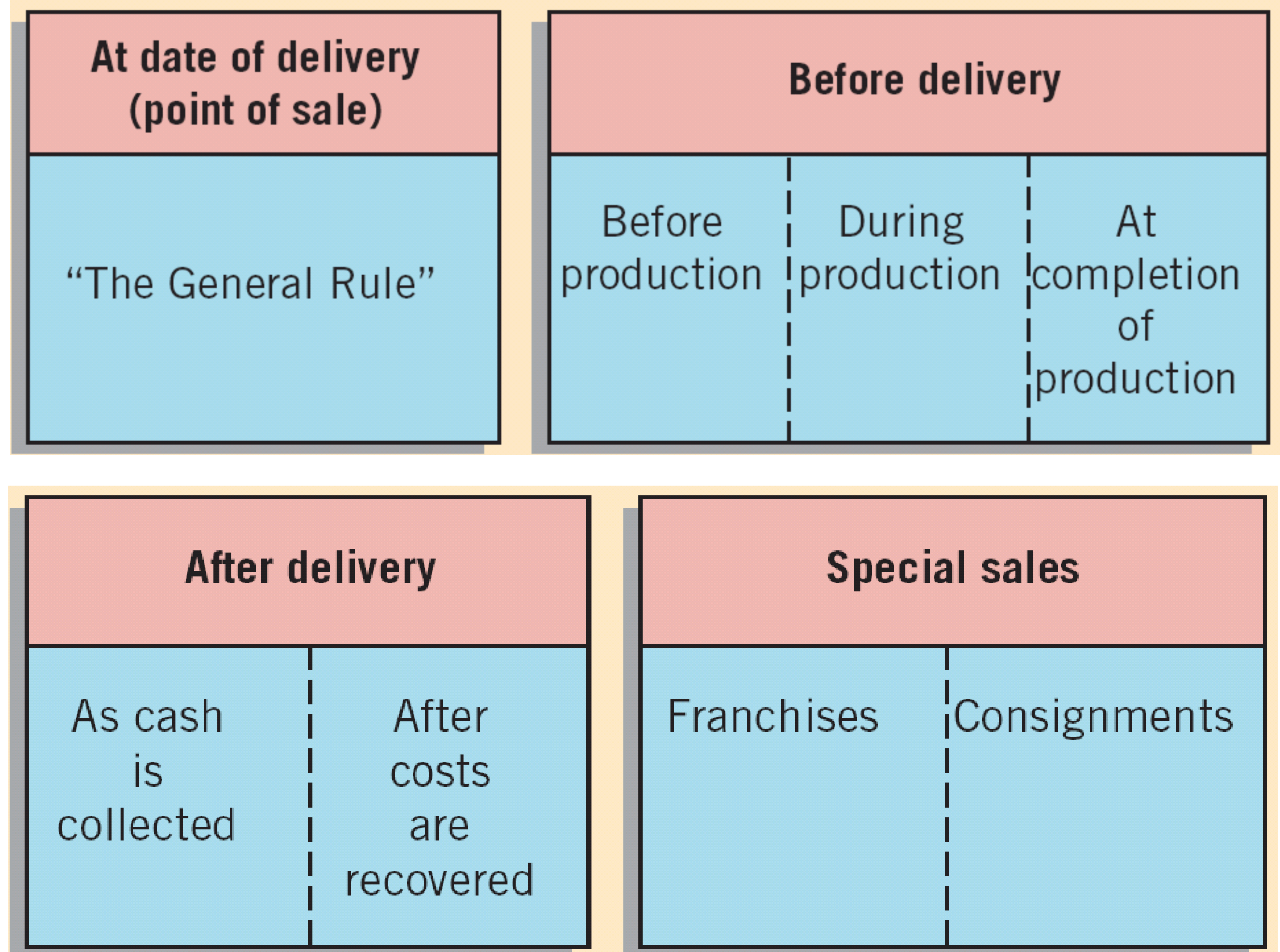
Delayed recognition is appropriate if the

- degree of uncertainty concerning the amount of revenue or costs is sufficiently high or
- sale does not represent substantial completion of the earnings process.

The Current Environment

Illustration 18-2

Departures from the Sale Basis



LO 1 Apply the revenue recognition principle.

Revenue Recognition at Point of Sale (Delivery)

Departures from the Sale Basis

FASB's Concepts Statement No. 5, companies usually meet the two conditions for recognizing revenue by the time they deliver products or render services to customers.

Implementation problems,

- Sales with Buyback Agreements
- Sales When Right of Return Exists
- Trade Loading and Channel Stuffing

Revenue Recognition at Point of Sale (Delivery)

Sales with Buyback Agreements

When a repurchase agreement exists at a set price and this price covers all cost of the inventory plus related holding costs, the inventory and related liability remain on the seller's books.* In other words, no sale.

* "Accounting for Product Financing Arrangements," *Statement of Financial Accounting Standards No. 49* (Stamford, Conn.: FASB, 1981).

Revenue Recognition at Point of Sale (Delivery)

Sales When Right of Return Exists

Recognize revenue only if six conditions have been met.

1. The seller's price to the buyer is substantially fixed or determinable at the date of sale.
2. The buyer has paid the seller, or the buyer is obligated to pay the seller, and the obligation is not contingent on resale of the product.
3. The buyer's obligation to the seller would not be changed in the event of theft or physical destruction or damage of the product.

Revenue Recognition at Point of Sale (Delivery)

Sales When Right of Return Exists

Recognize revenue only if six conditions have been met.

4. The buyer acquiring the product for resale has economic substance apart from that provided by the seller.
5. The seller does not have significant obligations for future performance to directly bring about resale of the product by the buyer.
6. The seller can reasonably estimate the amount of future returns.

Revenue Recognition at Point of Sale (Delivery)

Trade Loading and Channel Stuffing

"Trade loading is a crazy, uneconomic, insidious practice through which manufacturers—trying to show sales, profits, and market share they don't actually have—induce their wholesale customers, known as the trade, to buy more product than they can promptly resell."*

* "The $600 Million Cigarette Scam," *Fortune* (December 4, 1989), p. 89.

LO 2 Describe accounting issues for revenue recognition at point of sale.

Revenue Recognition Before Delivery

Most notable example is **long-term construction** contract accounting.

Two Methods:

- Percentage-of-Completion Method.
  - Rationale is that the buyer and seller have enforceable rights.
- Completed-Contract Method.

Revenue Recognition Before Delivery

Must use **Percentage-of-Completion** method when estimates of progress toward completion, revenues, and costs are reasonably dependable and **all** of the following conditions exist:

1. The contract clearly specifies the enforceable rights regarding goods or services by the parties, the consideration to be exchanged, and the manner and terms of settlement.
2. The buyer can be expected to satisfy all obligations.
3. The contractor can be expected to perform under the contract.

Revenue Recognition Before Delivery

Companies should use the **Completed-Contract** method when one of the following conditions applies when:

1. Company has primarily short-term contracts, or
2. Company cannot meet the conditions for using the percentage-of-completion method, or
3. There are inherent hazards in the contract beyond the normal, recurring business risks.

Percentage-of-Completion Method

Measuring the Progress toward Completion

Most popular measure is the **cost-to-cost basis**.

$$\frac{\text{Costs incurred to date}}{\text{Most recent estimate of total costs}} = \text{Percent complete}$$

The percentage that costs incurred bear to total estimated costs, can be applied to the total revenue or the estimated total gross profit on the contract.

Percentage-of-Completion Method

Illustration:

Casper Construction Co.

	2007	2008	2009
Contract price	$675,000	$675,000	$675,000
Cost incurred current year	150,000	287,400	170,100
Estimated cost to complete			
in future years	450,000	170,100	0
Billings to customer current year	135,000	360,000	180,000
Cash receipts from customer			
Current year	112,500	262,500	300,000

A) Prepare the journal entries for 2007, 2008, and 2009.

LO 3 Apply the percentage-of-completion method for long-term contracts.

Percentage-of-Completion Method

Illustration:	2007	2008	2009
Costs incurred to date	$ 150,000	$ 437,400	$ 607,500
Estimated cost to complete	450,000	170,100	
Est. total contract costs	600,000	607,500	607,500
Est. percentage complete	25.0%	72.0%	100.0%
Contract price	675,000	675,000	675,000
Revenue recognizable	168,750	486,000	675,000
Rev. recognized prior year		(168,750)	(486,000)
Rev. recognized currently	168,750	317,250	189,000
Costs incurred currently	(150,000)	(287,400)	(170,100)
Income recognized currently	$ 18,750	$ 29,850	$ 18,900

LO 3 Apply the percentage-of-completion method for long-term contracts.

Percentage-of-Completion Method

Illustration:

	2007		2008		2009	
Construction in progress	150,000		287,400		170,100	
Cash		150,000		287,400		170,100
Accounts receivable	135,000		360,000		180,000	
Billings on contract		135,000		360,000		180,000
Cash	112,500		262,500		300,000	
Accounts receivable		112,500		262,500		300,000
Construction in progress	18,750		29,850		18,900	
Construction expense	150,000		287,400		170,100	
Construction revenue		168,750		317,250		189,000
Billings on contract					675,000	
Construction in progress						675,000

LO 3 Apply the percentage-of-completion method for long-term contracts.

Percentage-of-Completion Method

Illustration:

Income Statement	2007	2008	2009
Revenue on contracts	$ 168,750	$ 317,250	$ 189,000
Cost of construction	150,000	287,400	170,100
Gross profit	18,750	29,850	18,900

Balance Sheet (12/31)	2007	2008	2009
Current assets:			
Accounts receivable	22,500	120,000	-
Cost & profits > billings	33,750		
Current liabilities:			
Billings > cost & profits		9,000	

LO 3 Apply the percentage-of-completion method for long-term contracts.

Completed Contract Method

Companies recognize revenue and gross profit only at point of sale—that is, when the contract is completed.

Under this method, companies accumulate costs of long-term contracts in process, but they make no interim charges or credits to income statement accounts for revenues, costs, or gross profit.

Completed Contract Method

Illustration:

	2007		2008		2009	
Construction in progress	150,000		287,400		170,100	
Cash		150,000		287,400		170,100
Accounts receivable	135,000		360,000		180,000	
Billings on contract		135,000		360,000		180,000
Cash	112,500		262,500		300,000	
Accounts receivable		112,500		262,500		300,000
Construction in progress					67,500	
Construction expense					607,500	
Construction revenue						675,000
Billings on contract					675,000	
Construction in progress						675,000

LO 4 Apply the completed-contract method for long-term contracts.

Completed Contract Method

Illustration:

Income Statement	2007	2008	2009
Revenue on contracts	$ -	$ -	$ 675,000
Cost of construction	-	-	607,500
Gross profit	-	-	67,500

Balance Sheet (12/31)			
Current assets:			
Accounts receivable	22,500	120,000	-
Cost & profits > billings	15,000		
Current liabilities:			
Billings > cost & profits		57,600	

LO 4 Apply the completed-contract method for long-term contracts.

Long-Term Contract Losses

Two Methods:

- Loss in the Current Period on a Profitable Contract
  - Percentage-of-completion method only, the estimated cost increase requires a current-period adjustment of gross profit recognized in prior periods.
- Loss on an Unprofitable Contract
  - Under both percentage-of-completion and completed-contract methods, the company must recognize in the current period the entire expected contract loss.

LO 5 Identify the proper accounting for losses on long-term contracts.

Long-Term Contract Losses

Illustration: Loss on Profitable Contract

Casper Construction Co.

	2007	2008	2009
Contract price	$675,000	$675,000	$675,000
Cost incurred current year	150,000	287,400	215,436
Estimated cost to complete			
in future years	450,000	215,436	0
Billings to customer current year	135,000	360,000	180,000
Cash receipts from customer			
Current year	112,500	262,500	300,000

b) Prepare the journal entries for 2007, 2008, and 2009 assuming the estimated cost to complete at the end of 2008 was $215,436 instead of $170,100.

LO 5 Identify the proper accounting for losses on long-term contracts.

Long-Term Contract Losses

Illustration: Loss on Profitable Contract

	2007	2008	2009
Costs incurred to date	$ 150,000	$ 437,400	$ 652,836
Estimated cost to complete	450,000	215,436	
Est. total contract costs	600,000	652,836	652,836
Est. percentage complete	25.0%	67.0%	100.0%
Contract price	675,000	675,000	675,000
Revenue recognizable	168,750	452,250	675,000
Rev. recognized prior year		(168,750)	(452,250)
Rev. recognized currently	168,750	283,500	222,750
Costs incurred currently	(150,000)	(287,400)	(215,436)
Income recognized currently	$ 18,750	$ (3,900)	$ 7,314

LO 5 Identify the proper accounting for losses on long-term contracts.

Long-Term Contract Losses

Illustration: Loss on Profitable Contract

	2007		2008		2009	
Construction in progress	18,750				7,314	
Construction expense	150,000				215,436	
Construction revenue		168,750				222,750
Construction in progress				3,900		
Construction expense			287,400			
Construction revenue				283,500		

LO 5 Identify the proper accounting for losses on long-term contracts.

Long-Term Contract Losses

Illustration: Loss on Unprofitable Contract

Casper Construction Co.

	2007	2008	2009
Contract price	$675,000	$675,000	$675,000
Cost incurred current year	150,000	287,400	246,038
Estimated cost to complete in future years	450,000	246,038	0
Billings to customer current year	135,000	360,000	180,000
Cash receipts from customer Current year	112,500	262,500	300,000

c) Prepare the journal entries for 2007, 2008, and 2009 assuming the estimated cost to complete at the end of 2008 was $246,038 instead of $170,100.

LO 5 Identify the proper accounting for losses on long-term contracts.

Long-Term Contract Losses

Illustration: Loss on Unprofitable Contract

	2007	2008	2009
Costs incurred to date	$ 150,000	$ 437,400	$ 683,438
Estimated cost to complete	450,000	246,038	
Est. total contract costs	600,000	683,438	683,438
Est. percentage complete	25.0%	64.0%	100.0%
Contract price	675,000	675,000	675,000
Revenue recognizable	168,750	432,000	675,000
Rev. recognized prior year		(168,750)	(432,000)
Rev. recognized currently	168,750	263,250	243,000
Costs incurred currently	(150,000)	Plug (290,438)	(243,000)
Income recognized currently	$ 18,750	$ (27,188)	$ -

$683,438 – 678,500 = 8,438 cumulative loss

LO 5 Identify the proper accounting for losses on long-term contracts.

Long-Term Contract Losses

Illustration: Loss on Unprofitable Contract

	2007		2008		2009	
Construction in progress	18,750				-	
Construction expense	150,000				243,000	
Construction revenue		168,750				243,000
Construction in progress				27,188		
Construction expense			290,438			
Construction revenue				263,250		

LO 5 Identify the proper accounting for losses on long-term contracts.

Long-Term Contract Losses

Illustration: Loss on Unprofitable Contract

For the **Completed-Contract** method, companies would recognize the following loss :

	2007		2008		2009	
Loss on construction contract			8,438			
Construction in progress				8,438		

Revenue Recognition Before Delivery

Disclosures in Financial Statements

Construction contractors should disclosure:

- the method of recognizing revenue,
- the basis used to classify assets and liabilities as current (length of the operating cycle),
- the basis for recording inventory,
- the effects of any revision of estimates,
- the amount of backlog on uncompleted contracts, and
- the details about receivables.

LO 5 Identify the proper accounting for losses on long-term contracts.

Revenue Recognition Before Delivery

Completion-of-Production Basis

In certain cases companies recognize revenue at the completion of **production** even though no sale has been made.

Examples are:

- precious metals or
- agricultural products.

Revenue Recognition After Delivery

When the collection of the sales price is not reasonably assured and revenue recognition is deferred.

Methods of deferring revenue:

- Installment-sales method
- Cost-recovery method
- Deposit method

Generally Employed (Installment-sales method, Cost-recovery method)

LO 6 Describe the installment-sales method of accounting.

Revenue Recognition after Delivery

Installment-Sales Method

Recognizes income in the periods of collection rather than in the period of sale.

Recognize both revenues and costs of sales in the period of sale, but defer gross profit to periods in which cash is collected.

Selling and administrative expenses are not deferred.

LO 6 Describe the installment-sales method of accounting.

Revenue Recognition after Delivery

Acceptability of the Installment-Sales Method

The profession concluded that except in special circumstances, "the installment method of recognizing revenue is not acceptable."*

The rationale: because the installment method does not recognize any income until cash is collected, it is not in accordance with the accrual concept.

*"Omnibus Opinion," Opinions of the Accounting Principles Board No. 10 (New York: AICPA, 1966), par. 12.

Revenue Recognition after Delivery

Cost-Recovery Method

Recognizes no profit until cash payments by the buyer exceed the cost of the merchandise sold.

APB Opinion No. 10 allows a seller to use the cost-recovery method to account for sales in which "there is no reasonable basis for estimating collectibility." In addition, *FASB Statements No. 45* (franchises) and *No. 66* (real estate) require use of this method where a high degree of uncertainty exists related to the collection of receivables.

LO 7 Explain the cost-recovery method of accounting.

Revenue Recognition after Delivery

Deposit Method

Seller reports the cash received from the buyer as a deposit on the contract and classifies it on the balance sheet as a liability.

The seller does not recognize revenue or income until the sale is complete.

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Percentage-of-Completion Method

Measuring the Progress toward Completion

Cost-to-cost basis

Illustrations 18-3,4,& 5

$$\frac{\text{Costs incurred to date}}{\text{Most recent estimate of total costs}} = \text{Percent complete}$$

Percent complete x Estimated total revenue = Revenue to be recognized to date

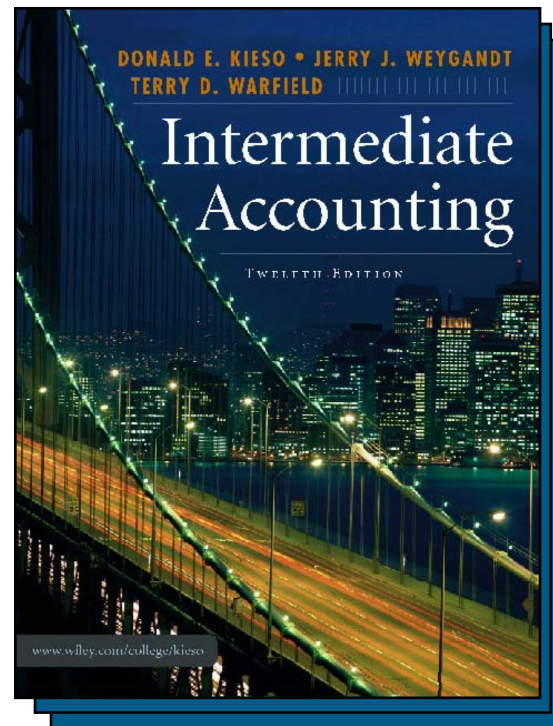
Revenue to be recognized to date - Revenue recognized in prior periods = Current-period Revenue

LO 3 Apply the percentage-of-completion method for long-term contracts.

Accounting for Income Taxes

Chapter 19

Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Identify differences between pretax financial income and taxable income.
2. Describe a temporary difference that results in future taxable amounts.
3. Describe a temporary difference that results in future deductible amounts.
4. Explain the purpose of a deferred tax asset valuation allowance.
5. Describe the presentation of income tax expense in the income statement.
6. Describe various temporary and permanent differences.
7. Explain the effect of various tax rates and tax rate changes on deferred income taxes.
8. Apply accounting procedures for a loss carryback and a loss carryforward.
9. Describe the presentation of deferred income taxes in financial statements.
10. Indicate the basic principles of the asset-liability method.

Accounting for Income Taxes

Fundamentals of Accounting for Income Taxes

- Future taxable amounts and deferred taxes
- Future deductible amounts and deferred taxes
- Income statement presentation
- Specific differences
- Rate considerations

Accounting for Net Operating Losses

- Loss carryback
- Loss carryforward
- Loss carryback example
- Loss carryforward example

Financial Statement Presentation

- Balance sheet
- Income statement

Review of Asset-Liability Method

Fundamentals of Accounting for Income Taxes

Corporations must file income tax returns following the guidelines developed by the Internal Revenue Service (IRS), thus they:

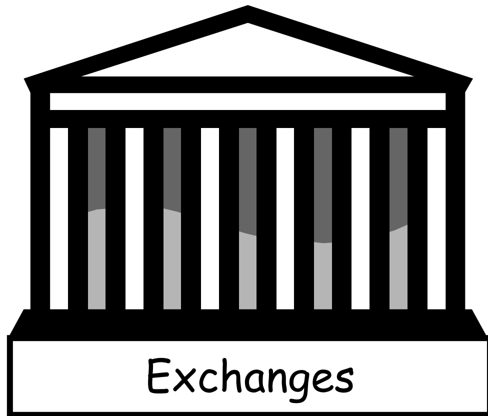
- calculate taxes payable based upon IRS code,
- calculate income tax expense based upon GAAP.

Amount reported as tax expense will often differ from the amount of taxes payable to the IRS.

LO 1 Identify differences between pretax financial income and taxable income.

Fundamentals of Accounting for Income Taxes

Financial Statements vs. **Tax Return**



Investors and Creditors

Financial Statements		Tax Return
Pretax Financial Income	≠	Taxable Income
GAAP		Tax Code
Income Tax Expense	≠	Income Tax Payable

LO 1 Identify differences between pretax financial income and taxable income.

Fundamentals of Accounting for Income Taxes

Illustration Assume the company reports revenue in 2007, 2008, and 2009 of $130,000, respectively. The revenue is reported the same for both GAAP and tax purposes. For simplification, assume the company reports one expense, depreciation, over the three years applying the straight-line method for financial reporting purposes (GAAP) and MACRS (IRS) for the tax return. What is the effect on the accounts of using the two different depreciation methods?

LO 1 Identify differences between pretax financial income and taxable income.

Book vs. Tax Difference

GAAP Reporting	2007	2008	2009	Total
Revenues	$130,000	$130,000	$130,000	$390,000
Expenses (S/L depreciation)	30,000	30,000	30,000	90,000
Pretax financial income	$100,000	$100,000	$100,000	$300,000
Income tax expense (40%)	$40,000	$40,000	$40,000	$120,000

Tax Reporting	2007	2008	2009	Total
Revenues	$130,000	$130,000	$130,000	$390,000
Expenses (MACRS depreciation)	40,000	30,000	20,000	90,000
Pretax financial income	$90,000	$100,000	$110,000	$300,000
Income tax payable (40%)	$36,000	$40,000	$44,000	$120,000

LO 1 Identify differences between pretax financial income and taxable income.

Book vs. Tax Difference

Comparison	2007	2008	2009	Total
Income tax expense (GAAP)	$40,000	$40,000	$40,000	$120,000
Income tax payable (IRS)	36,000	40,000	44,000	120,000
Difference	$4,000	$0	$(4,000)	$0

Are the differences accounted for in the financial statements? **Yes**

Year	Reporting Requirement
2007	**Deferred tax liability account increased to $4,000**
2008	**No change in deferred tax liability account**
2009	**Deferred tax liability account reduced by $4,000**

LO 1 Identify differences between pretax financial income and taxable income.

Financial Reporting for 2007

Balance Sheet	2007
Assets:	
Liabilities:	
Deferred taxes	**4,000**
Income tax payable	**36,000**
Equity:	

Income Statement	2007
Revenues:	
Expenses:	
Income tax expense	**40,000**
Net income (loss)	

Where does the "deferred tax liability" get reported in the financial statements?

Temporary Differences

A **Temporary Difference** is the difference between the tax basis of an asset or liability and its reported (carrying or book) amount in the financial statements that will result in taxable amounts or deductible amounts in future years.

Future Taxable Amounts	Future Deductible Amounts
Deferred Tax Liability represents the increase in taxes payable in future years as a result of taxable temporary differences existing at the end of the current year.	Deferred Tax Asset represents the increase in taxes refundable (or saved) in future years as a result of deductible temporary differences existing at the end of the current year.

Illustration 19-22 Examples of Temporary Differences

LO 2 Describe a temporary difference that results in future taxable amounts.

Future Taxable Amounts and Deferred Taxes

E19-1 South Carolina Corporation has one temporary difference at the end of 2007 that will reverse and cause taxable amounts of $55,000 in 2008, $60,000 in 2009, and $65,000 in 2010. South Carolina's pretax financial income for 2007 is $300,000, and the tax rate is 30% for all years. There are no deferred taxes at the beginning of 2007.

Instructions

a) Compute taxable income and income taxes payable for 2007.

b) Prepare the journal entry to record income tax expense, deferred income taxes, and income taxes payable for 2007.

LO 2 Describe a temporary difference that results in future taxable amounts.

Future Taxable Amounts and Deferred Taxes

Ex. 19-1

INCOME:		Current Yr. 2007	2008	2009	2010
Financial income (GAAP)		300,000			
Temporary Diff.		(180,000)	55,000	60,000	65,000
Taxable income (IRS)	a.	120,000	55,000	60,000	65,000
Tax rate		30%	30%	30%	30%
Income tax	a.	36,000	16,500	18,000	19,500

b.		
Income tax expense (plug)	90,000	
Income tax payable		36,000
Deferred tax liability		54,000

LO 2 Describe a temporary difference that results in future taxable amounts.

Future Deductible Amounts and Deferred Taxes

Illustration Columbia Corporation has one temporary difference at the end of 2007 that will reverse and cause deductible amounts of $50,000 in 2008, $65,000 in 2009, and $40,000 in 2010. Columbia's pretax financial income for 2007 is $200,000 and the tax rate is 34% for all years. There are no deferred taxes at the beginning of 2007. Columbia expects to be profitable in the future.

Instructions

a) Compute taxable income and income taxes payable for 2007.

b) Prepare the journal entry to record income tax expense, deferred income taxes, and income taxes payable for 2007.

LO 3 Describe a temporary difference that results in future deductible amounts.

Future Deductible Amounts and Deferred Taxes

Illustration

INCOME:		Current Yr. 2007	2008	2009	2010
Financial income (GAAP)		200,000			
Temporary Diff.		155,000	(50,000)	(65,000)	(40,000)
Taxable income (IRS)	a.	355,000	(50,000)	(65,000)	(40,000)
Tax rate		34%	34%	34%	34%
Income tax	a.	120,700	(17,000)	(22,100)	(13,600)

b. Income tax expense	68,000	
Income tax payable		120,700
Deferred tax asset	52,700	

LO 3 Describe a temporary difference that results in future deductible amounts.

Future Deductible Amounts and Deferred Taxes

Deferred Tax Asset—Valuation Allowance

A company should reduce a deferred tax asset by a **valuation allowance** if **it is more likely than not** that it will not realize some portion or all of the deferred tax asset.

"More likely than not" means a level of likelihood of at least slightly more than 50 percent.

LO 4 Explain the purpose of a deferred tax asset valuation allowance.

Future Deductible Amounts and Deferred Taxes

E19-14 Jennifer Capriati Corp. has a deferred tax asset balance of $150,000 at the end of 2006 due to a single cumulative temporary difference of $375,000. At the end of 2007 this same temporary difference has increased to a cumulative amount of $450,000. Taxable income for 2007 is $820,000. The tax rate is 40% for all years. No valuation account is in existence at the end of 2006.

Instructions

Assuming that it is more likely than not that $30,000 of the deferred tax asset will not be realized, prepare the journal entries required for 2007.

LO 4 Explain the purpose of a deferred tax asset valuation allowance.

Future Deductible Amounts and Deferred Taxes

E19-14

INCOME:	2006	Current Yr. 2007	2008	
Financial income (GAAP)		745,000		
Temporary difference	375,000	75,000	(450,000)	
Taxable income (IRS)	375,000	820,000	(450,000)	-
Tax rate	40%	40%	40%	40%
Income tax	150,000	328,000	(180,000)	-

Income tax expense	298,000	
Income tax payable		328,000
Deferred tax asset	30,000	
Income tax expense	30,000	
Allowance for deferred tax asset		30,000

LO 4 Explain the purpose of a deferred tax asset valuation allowance.

Future Deductible Amounts and Deferred Taxes

Deferred Tax Asset—Valuation Allowance

E19-14 Balance Sheet Presentation

Assets:		2007
Deferred tax asset	$	180,000
Allowance for deferred tax		(30,000)
Deferred tax asset, net		150,000

LO 4 Explain the purpose of a deferred tax asset valuation allowance.

Income Statement Presentation

Illustration 19-20

Formula to Compute Income Tax Expense

Income tax payable or refundable	±	Change in deferred income tax	=	**Income tax expense** or **benefit**

In the income statement or in the notes to the financial statements, a company should disclose the significant components of income tax expense (current and deferred).

LO 5 Describe the presentation of income tax expense in the income statement.

Specific Differences

Temporary Differences

- **Taxable temporary differences** - Deferred tax liability
- **Deductible temporary differences** - Deferred tax Asset

Text Illustration 19-22 Examples of Temporary Differences

LO 6 Describe various temporary and permanent differences.

Specific Differences

Permanent differences are caused by items that (1) enter into pretax financial income but never into taxable income or (2) enter into taxable income but never into pretax financial income.

Permanent differences affect only the period in which they occur, they do not give rise to future taxable or deductible amounts.

There are no deferred tax consequences to be recognized.

Text Illustration 19-24 Examples of Permanent Differences

Specific Differences

Do the following generate:

- Future Deductible Amount = Deferred Tax Asset
- Future Taxable Amount = Deferred Tax Liability
- A Permanent Difference

1. The MACRS depreciation system is used for tax purposes, and the straight-line depreciation method is used for financial reporting purposes.

   Future Taxable Amount

2. A landlord collects some rents in advance. Rents received are taxable in the period when they are received.

   Future Deductible Amount

3. Expenses are incurred in obtaining tax-exempt income.

   Permanent Difference

4. Costs of guarantees and warranties are estimated and accrued for financial reporting purposes.

   Future Deductible Amount

LO 6 Describe various temporary and permanent differences.

Specific Differences

Do the following generate:

- Future Deductible Amount = Deferred Tax Asset
- Future Taxable Amount = Deferred Tax Liability
- A Permanent Difference

5. Sales of investments are accounted for by the accrual method for financial reporting purposes and the installment method for tax purposes.

Future Taxable Amount

6. Proceeds are received from a life insurance company because of the death of a key officer (the company carries a policy on key officers).

A Permanent Difference

7. Estimated losses on pending lawsuits and claims are accrued for books. These losses are tax deductible in the period(s) when the related liabilities are settled..

Future Deductible Amount

LO 6 Describe various temporary and permanent differences.

Permanent Differences

E19-4 Zurich Company reports pretax financial income of $70,000 for 2007. The following items cause taxable income to be different than pretax financial income. (1) Depreciation on the tax return is greater than depreciation on the income statement by $16,000. (2) Rent collected on the tax return is greater than rent earned on the income statement by $22,000. (3) Fines for pollution appear as an expense of $11,000 on the income statement.

Zurich's tax rate is 30% for all years, and the company expects to report taxable income in all future years. There are no deferred taxes at the beginning of 2007.

Instructions Prepare the journal entry to record income tax expense, deferred income taxes, and income taxes payable for 2007.

Permanent Differences

E19-4 INCOME:	Current Yr. 2007	Deferred Asset	Deferred Liability	
Financial income (GAAP)	$ 70,000			
Excess tax depreciation	(16,000)		$ 16,000	
Excess rent collected	22,000	$ (22,000)		
Fines (permanent)	11,000			
Taxable income (IRS)	87,000	(22,000)	16,000	-
Tax rate	30%	30%	30%	
Income tax	$ 26,100	$ (6,600)	$ 4,800	-

Income tax expense	24,300	
Deferred tax asset	6,600	
Deferred tax liability		4,800
Income tax payable		26,100

LO 6 Describe various temporary and permanent differences.

Specific Differences

Tax Rate Considerations

A company must consider presently enacted changes in the tax rate that become effective for a particular future year(s) when determining the tax rate to apply to existing temporary differences.

Revision of Future Tax Rates

When a change in the tax rate is enacted, companies should record its effect on the existing deferred income tax accounts immediately.

LO 7 Explain the effect of various tax rates and tax rate changes on deferred income taxes.

Accounting for Net Operating Losses

Net operating loss (NOL) = tax-deductible expenses exceed taxable revenues.

The federal tax laws permit taxpayers to use the losses of one year to offset the profits of other years (**carryback** and **carryforward**).

LO 8 Apply accounting procedures for a loss carryback and a loss carryforward.

Accounting for Net Operating Losses

Loss Carryback

- Back 2 years and forward 20 years
- Losses must be applied to earliest year first

Loss Carryforward

- May elect to forgo loss carryback and
- Carryforward losses 20 years

LO 8 Apply accounting procedures for a loss carryback and a loss carryforward.

Accounting for Net Operating Losses

BE19-12 (Carryback) Valis Corporation had the following tax information.

Year	Taxable Income	Tax Rate	Taxes Paid
2004	$ 300,000	35%	$ 105,000
2005	325,000	30%	97,500
2006	400,000	30%	120,000

In 2007 Valis suffered a net operating loss of $450,000, which it elected to carry back. The 2007 enacted tax rate is 29%. Prepare Valis's entry to record the effect of the loss carryback.

LO 8 Apply accounting procedures for a loss carryback and a loss carryforward.

Accounting for Net Operating Losses

BE19-12	2004	2005	2006	2007
Financial income	$ 300,000	$ 325,000	$ 400,000	
Difference				
Taxable income (loss)	300,000	325,000	400,000	(450,000)
Rate	35%	30%	30%	29%
Income tax	$ 105,000	$ 97,500	$ 120,000	

NOL Schedule				
Taxable income	$ 300,000	$ 325,000	$ 400,000	(450,000)
Carryback from 2007		(325,000)	(125,000)	450,000
Taxable income	300,000	-	275,000	-
Rate	35%	30%	30%	29%
Income tax (revised)	$ 105,000	$ -	$ 82,500	-
Refund		$ 97,500	$ 37,500	$135,000

LO 8 Apply accounting procedures for a loss carryback and a loss carryforward.

Accounting for Net Operating Losses

E19-12 Journal Entry for 2007

Income tax refund receivable	135,000	
Benefit due to loss carryback		135,000

LO 8 Apply accounting procedures for a loss carryback and a loss carryforward.

Accounting for Net Operating Losses

BE19-13 (Carryback and Carryforward) Zoop Inc. incurred a net operating loss of $500,000 in 2007. Combined income for 2005 and 2006 was $400,000. The tax rate for all years is 40%. Zoop elects the carryback option. Prepare the journal entries to record the benefits of the loss carryback and the loss carryforward.

LO 8 Apply accounting procedures for a loss carryback and a loss carryforward.

Accounting for Net Operating Losses

BE19-13	2005	2006	2007	2008
Financial income	$ 200,000	$ 200,000		
Difference				
Taxable income (loss)	200,000	200,000	(500,000)	
Rate	40%	40%	40%	
Income tax	$ 80,000	$ 80,000		

NOL Schedule	2005	2006	2007	2008
Taxable income	$ 200,000	$ 200,000	(500,000)	
Carryback from 2007	(200,000)	(200,000)	400,000	
Taxable income	-	-	(100,000)	
Rate	40%	40%	40%	
Income tax (revised)	$ -	$ -	(40,000)	
Refund	$ 80,000	$ 80,000		

$160,000

Deferred Tax Asset

LO 8 Apply accounting procedures for a loss carryback and a loss carryforward.

Accounting for Net Operating Losses

E19-13 Journal Entries for 2007

Income tax refund receivable	160,000	
Benefit due to loss carryback		160,000
Deferred tax asset	40,000	
Benefit due to loss carryforward		40,000

LO 8 Apply accounting procedures for a loss carryback and a loss carryforward.

Accounting for Net Operating Losses

BE19-14 (Carryback and Carryforward with Valuation Allowance) Use the information for Zoop Inc. given in BE19-13. Assume that it is more likely than not that the entire net operating loss carryforward will not be realized in future years. Prepare all the journal entries necessary at the end of 2007.

LO 8 Apply accounting procedures for a loss carryback and a loss carryforward.

Accounting for Net Operating Losses

E19-14 Journal Entries for 2007

Income tax refund receivable	160,000	
Benefit due to loss carryback		160,000
Deferred tax asset	40,000	
Benefit due to loss carryforward		40,000
Benefit due to loss carryforward	40,000	
Allowance for deferred tax asset		40,000

LO 8 Apply accounting procedures for a loss carryback and a loss carryforward.

Valuation Allowance Revisited

Whether the company will realize a deferred tax asset depends on whether sufficient taxable income exists or will exist within the carryforward period.

Text Illustration 19-37 Possible Sources of Taxable Income

If any one of these sources is sufficient to support a conclusion that a valuation allowance is unnecessary, a company need not consider other sources.

Text Illustration 19-38 Evidence to Consider in Evaluating the need for a Valuation Account

LO 8 Apply accounting procedures for a loss carryback and a loss carryforward.

Financial Statement Presentation

Balance Sheet Presentation

An individual deferred tax liability or asset is classified as current or noncurrent based on the classification of the related asset or liability for financial reporting purposes.

Companies should classify deferred tax accounts on the balance sheet in two categories:

- one for the **net current amount**, and
- one for the **net noncurrent amount**.

LO 9 Describe the presentation of deferred income taxes in financial statements.

Financial Statement Presentation

Income Statement Presentation

Companies should allocate income tax expense (or benefit) to continuing operations, discontinued operations, extraordinary items, and prior period adjustments.

Companies should disclose the significant components of income tax expense attributable to continuing operations (current tax expense, deferred tax expense, etc.).

LO 9 Describe the presentation of deferred income taxes in financial statements.

Review of the Asset-Liability Method

Companies apply the following basic principles:

(1) Recognize a current tax liability or asset for the estimated taxes payable or refundable.

(2) Recognize a deferred tax liability or asset for the estimated future tax effects attributable to temporary differences and carryforwards using enacted tax rate.

(3) Base the measurement of current and deferred taxes on provisions of the enacted tax law.

(4) Reduce the measurement of deferred tax assets, if necessary, by the amount of any tax benefits that, companies do not expect to realize.

LO 10 Indicate the basic principles of the asset-liability method.

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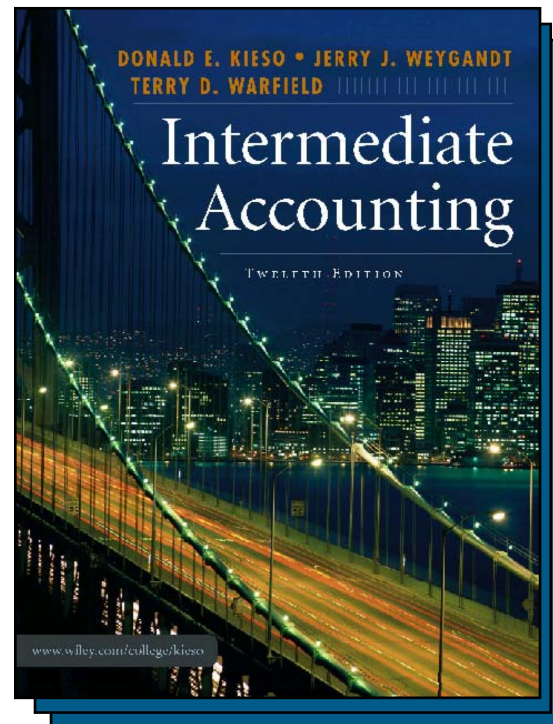
Accounting for Pensions and Postretirement Benefits

Chapter 20

Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield

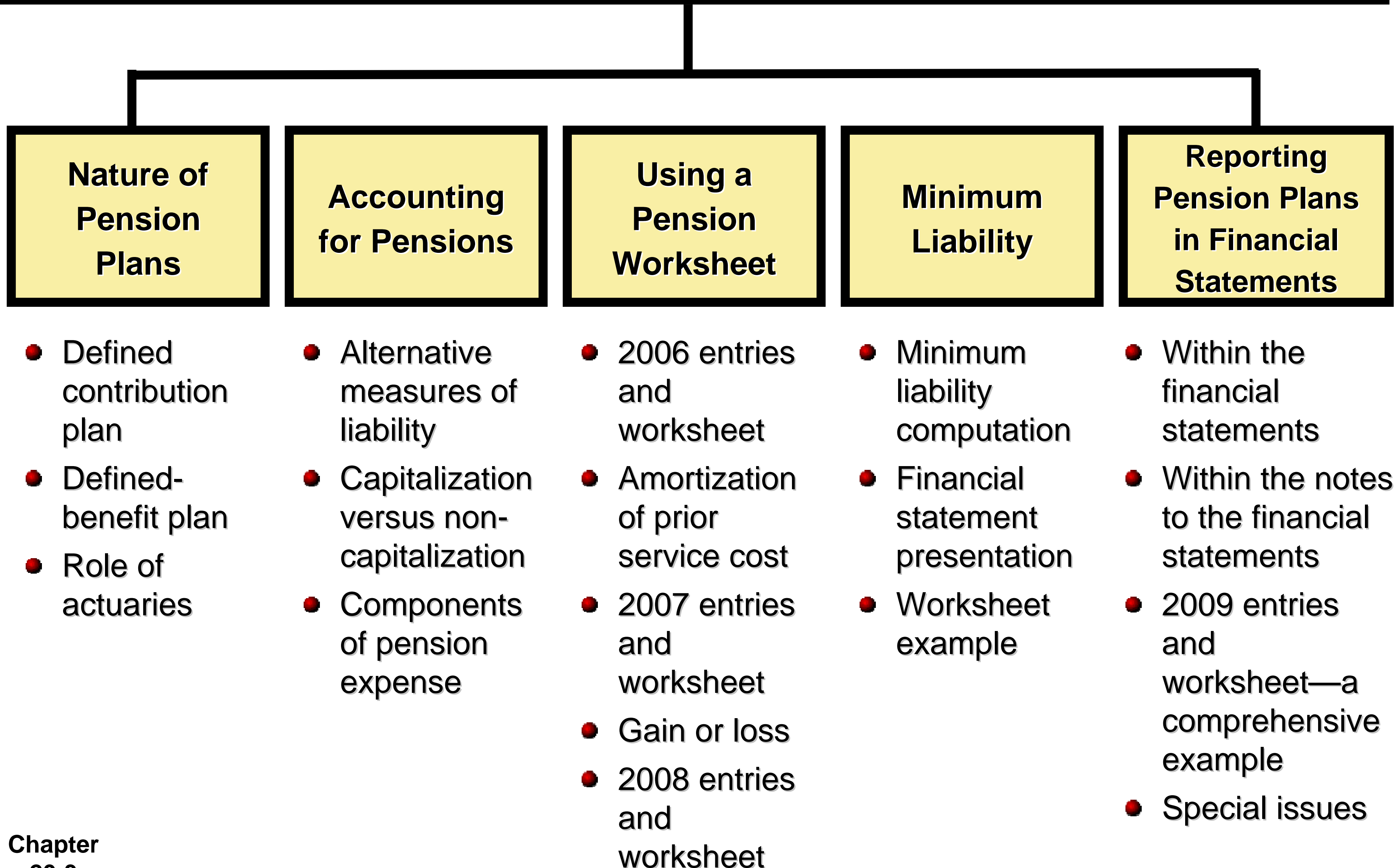


Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

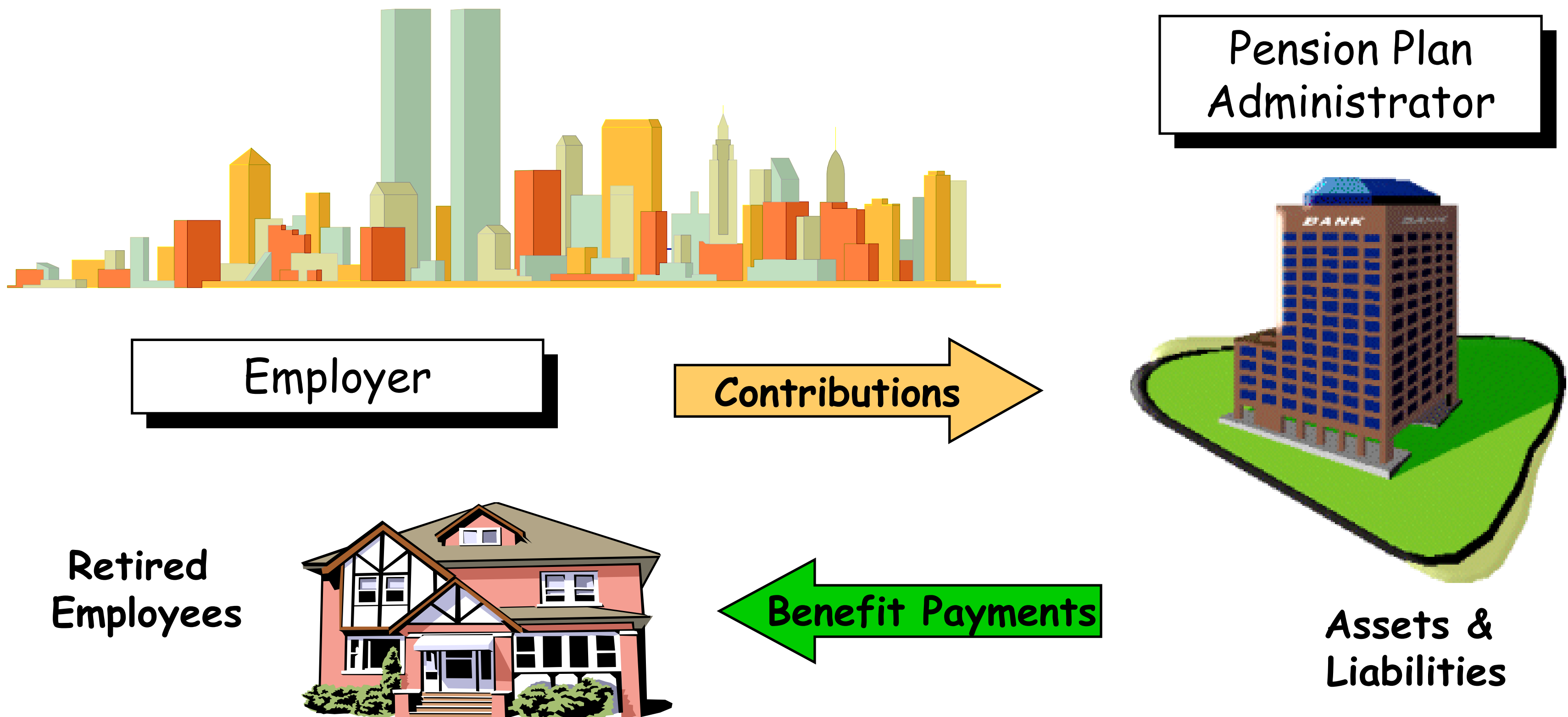
1. Distinguish between accounting for the employer's pension plan and accounting for the pension fund.
2. Identify types of pension plans and their characteristics.
3. Explain alternative measures for valuing the pension obligation.
4. List the components of pension expense.
5. Use a worksheet for employer's pension plan entries.
6. Describe the amortization of unrecognized prior service costs.
7. Explain the accounting procedure for recognizing unexpected gains and losses.
8. Explain the corridor approach to amortizing unrecognized gains and losses.
9. Explain the recognition of a minimum liability.
10. Describe the requirements for reporting pension plans in financial statements.

Accounting for Pensions and Postretirement Benefits



Nature of Pension Plans

A **Pension Plan** is an arrangement whereby an employer provides benefits (payments) to employees after they retire for services they provided while they were working.



LO 1 Distinguish between accounting for the employer's pension plan and accounting for the pension fund.

Nature of Pension Plans

Some pension plans are:

- Contributory: employees voluntarily make payments to increase their benefits.
- Noncontributory: employer bears the entire cost.
- Qualified pension plans: offer tax benefits.

Pension fund should be a separate legal and accounting entity.

LO 1 Distinguish between accounting for the employer's pension plan and accounting for the pension fund.

Types of Pension Plans

Defined-Contribution Plan	Defined-Benefit Plan
• Employer contribution determined by plan (fixed) • Risk borne by employees • Benefits based on plan value	• Benefit determined by plan • Employer contribution varies (determined by Actuaries) • Risk borne by employer

Actuaries estimate the employer contribution by considering mortality rates, employee turnover, interest and earning rates, early retirement frequency, future salaries, etc.

Statement of Financial Accounting Standard No. 87, "Employers' Accounting for Pension Plans," 1985

LO 2 Identify types of pension plans and their characteristics.

Accounting for Pensions

Two questions:

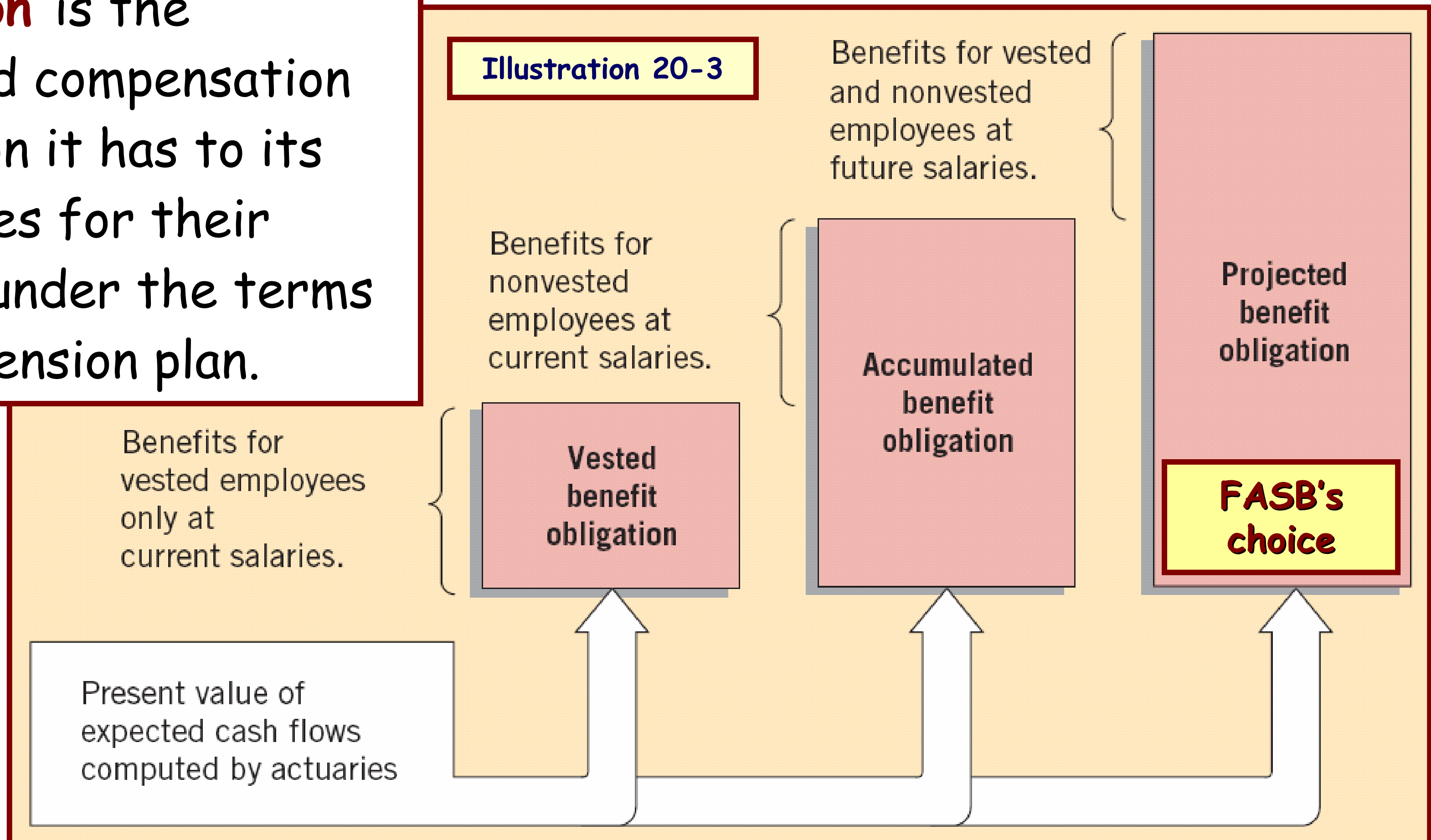
(1) What is the pension obligation that a company should report in the financial statements?

(2) What is the pension expense for the period?

Accounting for Pensions

The employer's **pension obligation** is the deferred compensation obligation it has to its employees for their service under the terms of the pension plan.

Alternative measures of the Liability



LO 3 Explain alternative measures for valuing the pension obligation.

Accounting for Pensions

Capitalization versus Noncapitalization

FASB Statement No. 87 represents a compromise that combines some of the features of capitalization with some of the features of noncapitalization.

Companies do not capitalize some elements of the pension plan in the accounts and the financial statements.

Accounting for Pensions

	Components of Pension Expense	Effect on Expense
1.	Service Costs	+
2.	Interest on Liability	+
3.	Actual Return on Plan Assets	+-
4.	Amortization of Unamortized Prior Service Costs	+
5.	Gain or Loss	+-

LO 4 List the components of pension expense.

Accounting for Pensions

Components of Pension Expense

Effect on Expense

1.	Service Costs	+

Actuarial present value of benefits attributed by the pension benefit formula to employee service during the period.

Accounting for Pensions

Components of Pension Expense

Effect on Expense

2.	Interest on Liability	+

Interest for the period on the **projected benefit obligation** outstanding during the period.

The interest rate (**settlement rate**) should reflect the rate at which companies can effectively settle pension benefits.

LO 4 List the components of pension expense.

Accounting for Pensions

Components of Pension Expense

Effect on Expense

3.	Actual Return on Plan Assets	+-

The **actual return** on plan assets is the increase in pension funds from interest, dividends, and realized and unrealized changes in the fair-market value of the plan assets.

Accounting for Pensions

Components of Pension Expense

Effect on Expense

4.	Amortization of Unamortized Prior Service Costs	+

Plan amendments often increase benefits for service provided in prior years.

The cost (**prior service cost**) of providing these retroactive benefits is allocated to pension expense over the remaining service-years of the affected employees.

LO 4 List the components of pension expense.

Accounting for Pensions

Components of Pension Expense

Effect on Expense

5.	Gain or Loss	+-

Volatility in pension expense can result from sudden and large changes in the market value of plan assets and by changes in the projected benefit obligation.

Using a Pension Work Sheet

Companies do not recognize several items in the accounts and in the financial statements:

- Projected benefit obligation.
- Pension plan assets.
- Unrecognized prior service costs.
- Unrecognized net gain or loss.

A company must disclose in notes to the financial statements, but not in the body of the financials.

Using a Pension Work Sheet

Pension Work Sheet

	GENERAL JOURNAL ENTRIES			MEMO RECORD			
Items	Pension Expense	Cash	Prepaid/ Accrued Costs	Projected Benefit Obligation	Plan Assets	Prior Service Costs	Unrecognized Gain/Loss

The **"General Journal Entries"** columns determine the journal entries to be recorded in the formal general ledger.

The **"Memo Record"** columns maintain balances on the unrecognized (noncapitalized) pension items.

LO 5 Use a worksheet for employer's pension plan entries.

Using a Pension Work Sheet

BE20-3 At January 1, 2008, Uddin Company had plan assets of $250,000 and a projected benefit obligation of the same amount. During 2008, service cost was $27,500, the settlement rate was 10%, actual and expected return on plan assets were $25,000, contributions were $20,000, and benefits paid were $17,500.

Instructions

Prepare a pension worksheet for Uddin for 2008.

Using a Pension Work Sheet

BE20-3 Prepare a pension worksheet for Uddin for 2008.

Pension Work Sheet

	GENERAL JOURNAL ENTRIES			MEMO RECORD			
Items	Pension Expense	Cash	Prepaid/ Accrued Costs	Projected Benefit Obligation	Plan Assets	Prior Service Costs	Unrecognized Gain/Loss
Jan. 1, 2008			0	(250,000)	250,000		
Service costs	27,500			(27,500)			
Interest costs	25,000			(25,000)			
Actual return	(25,000)				25,000		
Contributions		(20,000)			20,000		
Benefits paid				17,500	(17,500)		
Journal entry	27,500	(20,000)	(7,500)				
Dec. 31, 2008			(7,500)	(285,000)	277,500	-	-

($250,000 x 10%)

($7,500) net liability

LO 5 Use a worksheet for employer's pension plan entries.

Using a Pension Work Sheet

Note the following about the Work Sheet:

- The balance in the Prepaid/Accrued Cost column should equal the net balance in the memo record.
- For each transaction or event, the debits must equal the credits.

LO 5 Use a worksheet for employer's pension plan entries.

Using a Pension Work Sheet

Amortization of Unrecognized Prior Service Cost

Company should not recognize the retroactive benefits as pension expense entirely in the year of amendment.

Employer should recognize the pension expense over the remaining service lives of the employees who are expected to benefit from the change in the plan.

Amortization Method:

- Board prefers a years-of-service method.
- SFAS No. 87 allows use of the straight-line method.

LO 6 Describe the amortization of unrecognized prior service costs.

Using a Pension Work Sheet

E20-7 The following defined pension data of Doreen Corp. apply to the year 2008.

Projected benefit obligation, 1/1/08 (before amendment)	$560,000
Plan assets, 1/1/08	546,200
Prepaid/accrued pension cost (credit)	13,800
On January 1, 2008, Doreen Corp., through plan amendment, grants prior service benefits having a present value of	100,000
Settlement rate	9%
Service cost	58,000
Contributions (funding)	55,000
Actual (expected) return on plan assets	52,280
Benefits paid to retirees	40,000
Average remaining service life for Prior Service Costs	5.8823 years

Instructions: For 2008, prepare a pension work sheet for Doreen Corp. that shows the journal entry for pension expense.

LO 6 Describe the amortization of unrecognized prior service costs.

Using a Pension Work Sheet

E20-7

Amortization of Prior Service Costs :

Prior Service Costs	$100,000
Average remaining service life	5.8823
Amortization	$ 17,000

LO 6 Describe the amortization of unrecognized prior service costs.

Using a Pension Work Sheet

E20-7 Pension Work Sheet for 2008

	GENERAL JOURNAL ENTRIES			MEMO RECORD		
Items	Pension Expense	Cash	Prepaid/ Accrued Costs	Projected Benefit Obligation	Plan Assets	Prior Service Costs
Bal. Jan. 1, 2008			(13,800)	(560,000)	546,200	
Prior service costs				(100,000)		100,000
Bal. Jan. 1, 2008 restated			(13,800)	(660,000)	546,200	100,000
Service costs	58,000			(58,000)		
Interest on liability	59,400			(59,400)		
Return on assets	(52,280)				52,280	
Amort. of PSC	17,000					(17,000)
Contributions		(55,000)			55,000	
Benefits paid				40,000	(40,000)	
Journal entry	82,120	(55,000)	(27,120)			
Dec. 31, 2008			(40,920)	(737,400)	613,480	83,000

($40,920) net liability

LO 6 Describe the amortization of unrecognized prior service costs.

Using a Pension Work Sheet

E20-7 Pension Journal Entry for 2008.

Dec. 31	Pension expense	82,120	
	Prepaid/Accrued Costs		27,120
	Cash		55,000

Using a Pension Work Sheet

Gain or Loss

Unexpected swings in pension expense can result from:

1. Changes in the market value of plan assets, and
2. Changes in actuarial assumptions that affect the amount of the projected benefit obligation.

LO 7 Explain the accounting procedure for recognizing unexpected gains and losses.

Using a Pension Work Sheet

Question: What is the potential negative impact on Net Income of these unexpected swings?

Volatility

The profession decided to reduce the volatility with smoothing techniques.

LO 7 Explain the accounting procedure for recognizing unexpected gains and losses.

Using a Pension Work Sheet

Question: What happens to the difference between the expected return and the actual return?

Answer

Recorded in Unrecognized Net Gain or Loss account.

Amortize amount in excess of corridor to pension expense, over the average remaining service period of active employees expected to receive benefits under the plan.

LO 7 Explain the accounting procedure for recognizing unexpected gains and losses.

Using a Pension Work Sheet

Question: What happens with unexpected gains or losses from changes in the Projected Benefit Obligation (PBO)?

Answer

Recorded in Unrecognized Net Gain or Loss account.

Amortize amount in excess of corridor to pension expense, over the average remaining service period of active employees expected to receive benefits under the plan.

LO 7 Explain the accounting procedure for recognizing unexpected gains and losses.

Using a Pension Work Sheet

Corridor Amortization

FASB invented the **corridor approach** for amortizing the unrecognized net gain or loss accumulated balance when it gets too large. **How large is too large?**

10% of the larger of the beginning balances of the **projected benefit obligation** or the market-related value of the **plan assets**.

Any unrecognized net gain or loss balance above the 10% must be amortized.

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Using a Pension Work Sheet

BE20-7 Hunt Corporation had a projected benefit obligation of $3,100,000 and plan assets of $3,300,000 at January 1, 2008. Hunt's unrecognized net pension loss was $475,000 at that time. The average remaining service period of Hunt's employees is 7.5 years.

Instructions

Compute Hunt's amortization of the pension loss.

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Using a Pension Work Sheet

BE20-7 Compute Hunt's amortization of the loss.

				Amortization
Projected benefit obligation	$	(3,100,000)		
Plan assets		3,300,000		$ 3,300,000
Corridor percentage				10%
Corridor amount				330,000
Unrecognized loss				475,000
Excess loss subject to amortization				145,000
Average remaining service			÷	7.5
Amortized to pension expense				$ 19,333

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Using a Pension Work Sheet

P20-2 Katie Day Company adopts acceptable accounting for its defined benefit pension plan on January 1, 2008, with the following beginning balances: plan assets $200,000; projected benefit obligation $200,000. Other data are as follows.

	2008	2009	2010
Annual service cost	$ 16,000	$ 19,000	$ 26,000
Settlement rate and expected rate of return	10%	10%	10%
Actual return on plan assets	17,000	21,900	24,000
Annual funding (contributions)	16,000	40,000	48,000
Benefits paid	14,000	16,400	21,000
Unrecognized prior service cost (plan amended, 1/1/09)		160,000	
Amortization of unrecognized prior service cost		54,400	41,600
Change in actuarial assumptions, Dec. 31 PBO			520,000
Average remaining service life	15 years	15 years	15 years

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Using a Pension Work Sheet

P20-2 Pension Work Sheet for **2008**

	GENERAL JOURNAL ENTRIES			MEMO RECORD			
Items	Pension Expense	Cash	Prepaid/ Accrued Costs	Projected Benefit Obligation	Plan Assets	Prior Service Costs	Unrecognized Gain/Loss
Bal. Jan. 1, 2008			0	(200,000)	200,000		
Service costs	16,000			(16,000)			
Interest	20,000			(20,000)			
Return on assets	(17,000) *				17,000		
Unexpected loss	(3,000) *						3,000
Contributions		(16,000)			16,000		
Benefits paid				14,000	(14,000)		
Journal entry	16,000	(16,000)					
Dec. 31, 2008			0	(222,000)	219,000	-	3,000

($0)

* Expected Return on Plan Assets
$200,000 x 10% = $20,000

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Using a Pension Work Sheet

P20-2 Pension Journal Entry for **2008**

Dec. 31	Pension expense	16,000	
	Cash		16,000

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Using a Pension Work Sheet

P20-2 Pension Work Sheet for 2009

	GENERAL JOURNAL ENTRIES			MEMO RECORD			
Items	Pension Expense	Cash	Prepaid/ Accrued Costs	Projected Benefit Obligation	Plan Assets	Prior Service Costs	Unrecognized Gain/Loss
Bal. Jan. 1, 2009			0	(222,000)	219,000		3,000
Prior service costs				(160,000)		160,000	
Bal. Jan. 1, 2009, revised			0	(382,000)	219,000	160,000	3,000
Service costs	19,000			(19,000)			
Interest	38,200			(38,200)			
Return on assets	(21,900)	*			21,900		
Amort. of PSC	54,400					(54,400)	
Contributions		(40,000)			40,000		
Benefits paid				16,400	(16,400)		
Journal entry	89,700	(40,000)	(49,700)				
Dec. 31, 2009			(49,700)	(422,800)	264,500	105,600	3,000

($49,700) net liability

* Actual return = Expected Return

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Using a Pension Work Sheet

P20-2 Pension Journal Entry for **2009**

Dec. 31	Pension expense	89,700	
	Prepaid/Accrued Costs		49,700
	Cash		40,000

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Using a Pension Work Sheet

P20-2 Pension Work Sheet for 2010

Items	GENERAL JOURNAL ENTRIES			MEMO RECORD			
	Pension Expense	Cash	Prepaid/ Accrued Costs	Projected Benefit Obligation	Plan Assets	Prior Service Costs	Unrecognized Gain/Loss
Bal. Jan. 1, 2010			(49,700)	(422,800)	264,500	105,600	3,000
Service costs	26,000			(26,000)			
Interest	42,280			(42,280)			
Return on assets	(24,000)				24,000		
Unexpected loss	(2,450)						2,450
Amort. of PSC	41,600					(41,600)	
Contributions		(48,000)			48,000		
Benefits paid				21,000	(21,000)		
Unexpected loss				(49,920)*			49,920
Journal entry	83,430	(48,000)	(35,430)				
Dec. 31, 2010			(85,130)	(520,000)	315,500	64,000	55,370

($85,130) net liability

* Plug

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Using a Pension Work Sheet

P20-2 Pension Journal Entry for **2010**

Dec. 31	Pension expense	83,430	
	Prepaid/Accrued Costs		35,430
	Cash		48,000

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Using a Pension Work Sheet

P20-2 (Variation) Would there be any amortization of the gain/loss for 2011?

				Amortization
Beg. Projected benefit obligation	$	(520,000)	$	520,000
Beg. Plan assets		315,500		
Corridor percentage				10%
Corridor amount				52,000
Unrecognized loss				55,370
Loss subject to amortization				3,370
Amortization period				15
Amortization to pension expense			$	225

The amortization would be reported in 2011 as follows.

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Using a Pension Work Sheet

P20-2 Partial Pension Work Sheet for **2011**

	GENERAL JOURNAL ENTRIES			MEMO RECORD			
Items	Pension Expense	Cash	Prepaid/ Accrued Costs	Projected Benefit Obligation	Plan Assets	Prior Service Costs	Unrecognized Gain/Loss
Bal. Jan. 1, 2011			(85,130)	(520,000)	315,500	64,000	55,370
Service costs							
Interest							
Return on assets							
Amort. of loss	225						(225)
Journal entry							
Dec. 31, 2011							

LO 8 Explain the corridor approach to amortizing unrecognized gains and losses.

Minimum Liability

The Board, requires immediate recognition of a liability (**minimum liability**) when the accumulated benefit obligation exceeds the fair value of plan assets.

If a company has already reported a liability for accrued pension cost, it records only an additional liability to equal the required minimum liability.

Minimum Liability

BE20-8 Judy O'Neill Corporation provides the following information at December 31, 2007.

Accumulated benefit obligation	$2,800,000
Plan assets at fair value	2,000,000
Accrued pension cost	200,000
Unrecognized prior service cost	1,100, 000

Compute the additional liability that O'Neill must record at December 31, 2007.

LO 9 Explain the recognition of a minimum liability.

Minimum Liability

BE20-8 Compute the additional liability that O'Neill must record at December 31, 2007.

Accumulated benefit obligation	$2,800,000
Fair value of plan assets	2,000,000
Minimum liability	800,000
Accrued pension cost	200,000
Additional liability	$ 600,000

	Debit	Credit
Intangible asset	600,000	
Additional pension liability		600,000

LO 9 Explain the recognition of a minimum liability.

Reporting Pension Plans in Financial Statements

Within the Financial Statements

- Pension expense
- Accrued Pension Cost
- Prepaid Pension Cost
- Intangible Asset—Deferred Pension Cost (Minimum Liability test)

LO 10 Describe the requirements for reporting pension plans in financial statements.

Reporting Pension Plans in Financial Statements

Within the Notes to the Financial Statements

1. Major components of pension expense.
2. Reconciliation showing how the projected benefit obligation and the fair value of the plan assets changed.
3. The funded status of the plan (difference between the projected benefit obligation and fair value of the plan assets).

LO 10 Describe the requirements for reporting pension plans in financial statements.

Reporting Pension Plans in Financial Statements

Within the Notes to the Financial Statements

4. Disclosure of the rates used in measuring the benefit amounts (discount rate, expected return on plan assets, rate of compensation).
5. Table indicating the allocation of pension plan assets by category.
6. The expected benefit payments to be paid to current plan participants for each of the next five fiscal years and in the aggregate for the five fiscal years thereafter.

LO 10 Describe the requirements for reporting pension plans in financial statements.

Reporting Pension Plans in Financial Statements

Special Issues

- The Pension Reform Act of 1974
- Pension Terminations

LO 10 Describe the requirements for reporting pension plans in financial statements.

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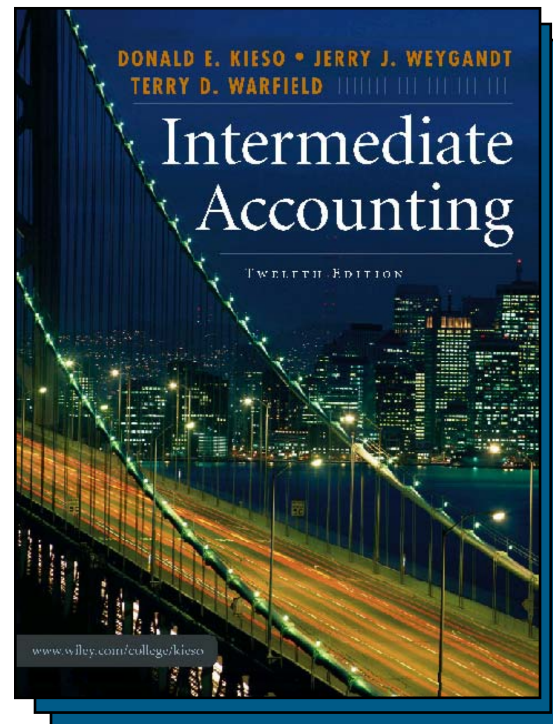
Accounting for Leases

Chapter 21



Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield

Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Explain the nature, economic substance, and advantages of lease transactions.
2. Describe the accounting criteria and procedures for capitalizing leases by the lessee.
3. Contrast the operating and capitalization methods of recording leases.
4. Identify the classifications of leases for the lessor.
5. Describe the lessor's accounting for direct-financing leases.
6. Identify special features of lease arrangements that cause unique accounting problems.
7. Describe the effect of residual values, guaranteed and unguaranteed, on lease accounting.
8. Describe the lessor's accounting for sales-type leases.
9. List the disclosure requirements for leases.

Accounting for Leases

Leasing Environment	Accounting by Lessee	Accounting by Lessor	Special Accounting Problems
• Who are players? • Advantages of leasing • Conceptual nature of a lease	• Capitalization criteria • Accounting differences • Capital lease method • Operating method • Comparison	• Economics of leasing • Classification • Direct-financing method • Operating method	• Residual values • Sales-type leases • Bargain purchase option • Initial direct costs • Current versus noncurrent • Disclosure • Unsolved problems

The Leasing Environment

A **lease** is a contractual agreement between a lessor and a lessee, that gives the **lessee** the right to use specific property, owned by the **lessor**, for a specified period of time.

Largest group of leased equipment involves:

- Information technology,
- Transportation (trucks, aircraft, rail),
- Construction and
- Agriculture.

LO 1 Explain the nature, economic substance, and advantages of lease transactions.

The Leasing Environment

Who Are the Players?

Three general categories:

- Banks.
- Captive leasing companies.
- Independents.

LO 1 Explain the nature, economic substance, and advantages of lease transactions.

The Leasing Environment

Advantages of Leasing

1. 100% Financing at Fixed Rates.
2. Protection Against Obsolescence.
3. Flexibility.
4. Less Costly Financing.
5. Tax Advantages.
6. Off-Balance-Sheet Financing.

LO 1 Explain the nature, economic substance, and advantages of lease transactions.

The Leasing Environment

Conceptual Nature of a Lease

Capitalize a lease that transfers substantially all of the benefits and risks of property ownership, provided the lease is noncancelable.

Leases that do not transfer substantially all the benefits and risks of ownership are operating leases.

LO 1 Explain the nature, economic substance, and advantages of lease transactions.

The Leasing Environment

The issue of how to report leases is the case of substance versus form. Although technically legal title may not pass, the benefits from the use of the property do.

Operating Lease

Journal Entry:

Rent expense	xxx	
Cash		xxx

Capital Lease

Journal Entry:

Leased equipment	xxx	
Lease obligation		xxx

A lease that transfers substantially all of the benefits and risks of property ownership should be capitalized (only noncancellable leases may be capitalized).

Statement of Financial Accounting Standard No. 13, "Accounting for Leases," 1980

LO 1 Explain the nature, economic substance, and advantages of lease transactions.

Accounting by the Lessee

If the lessee **capitalizes** a lease, the **lessee** records an asset and a liability generally equal to the present value of the rental payments.

- Records depreciation on the leased asset.
- Treats the lease payments as consisting of interest and principal.

LO 2 Describe the accounting criteria and procedures for capitalizing leases by the lessee.

Accounting by the Lessee

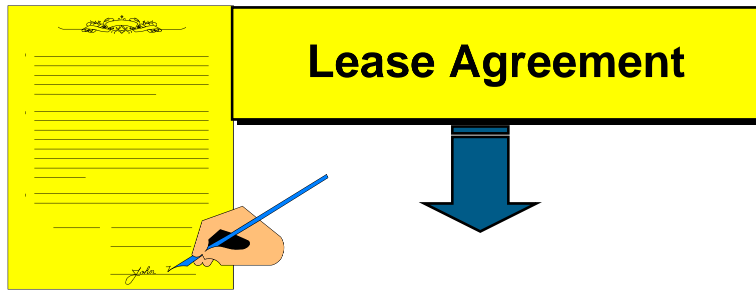
To record a lease as a **capital lease**, the lease must be noncancelable.

One or more of four criteria must be met:

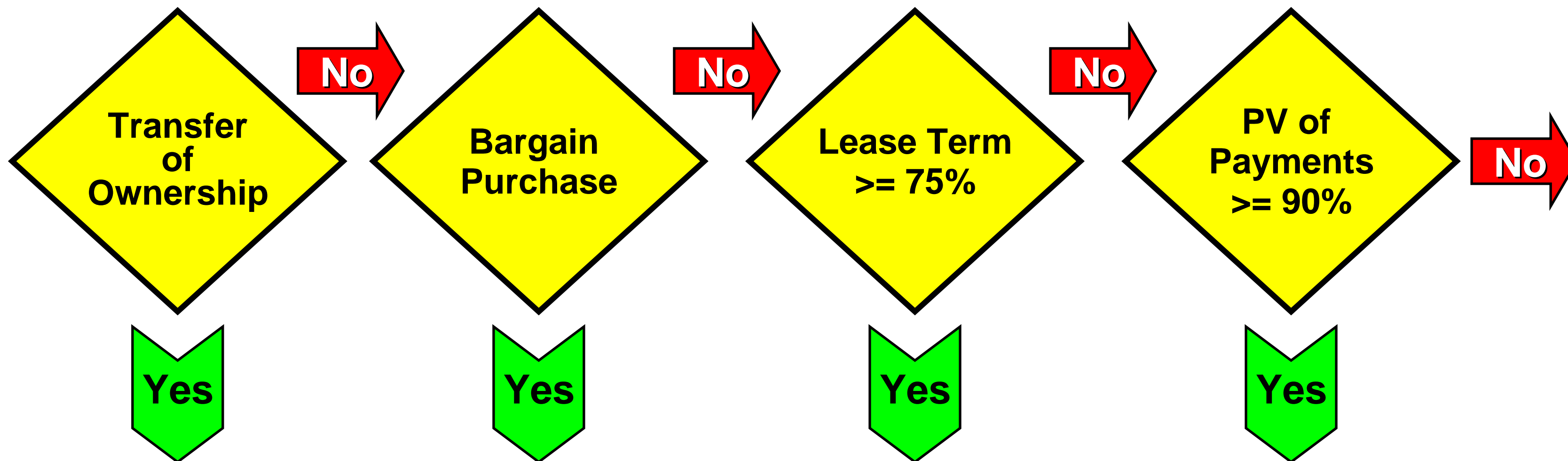
1. Transfers ownership to the lessee.
2. Contains a bargain purchase option.
3. Lease term is equal to or greater than 75 percent of the estimated economic life of the leased property.
4. The present value of the minimum lease payments (excluding executory costs) equals or exceeds 90 percent of the fair value of the leased property.

LO 2 Describe the accounting criteria and procedures for capitalizing leases by the lessee.

Accounting by the Lessee



Leases that DO NOT meet any of the four criteria are accounted for as Operating Leases.



Capital Lease

Operating Lease

LO 2 Describe the accounting criteria and procedures for capitalizing leases by the lessee.

Accounting by the Lessee

Recovery of Investment Test (90% Test)

Discount Rate

Lessee computes the present value of the minimum lease payments using its **incremental borrowing rate**, with one exception.

- If the lessee knows the **implicit interest rate** computed by the lessor and it is less than the lessee's incremental borrowing rate, then lessee **must** use the lessor's rate.

Accounting by the Lessee

Recovery of Investment Test (90% Test)

Minimum lease payments:

- Minimum rental payment
- Guaranteed residual value
- Penalty for failure to renew
- Bargain purchase option

Executory Costs:

- Insurance
- Maintenance
- Taxes

Exclude from PV of Minimum Lease Payment calculation

LO 2 Describe the accounting criteria and procedures for capitalizing leases by the lessee.

Accounting by the Lessee

Asset and Liability Accounted for Differently

Asset and Liability Recorded at the lower of:

1. the present value of the minimum lease payments (excluding executory costs) or
2. the fair-market value of the leased asset.

LO 2 Describe the accounting criteria and procedures for capitalizing leases by the lessee.

Accounting by the Lessee

Asset and Liability Accounted for Differently

Depreciation Period

- If lease transfers ownership, depreciate asset over the **economic life of the asset**.
- If lease does not transfer ownership, depreciate over the **term of the lease.**

Accounting by the Lessee

E21-1 (Capital Lease with Unguaranteed Residual Value) On January 1, 2007, Burke Corporation signed a 5-year noncancelable lease for a machine. The terms of the lease called for Burke to make annual payments of $8,668 at the beginning of each year, starting January 1, 2007. The machine has an estimated useful life of 6 years and a $5,000 unguaranteed residual value. Burke uses the straight-line method of depreciation for all of its plant assets. Burke's incremental borrowing rate is 10%, and the Lessor's implicit rate is unknown.

Instructions

(a) What type of lease is this? Explain.

(b) Compute the present value of the minimum lease payments.

(c) Prepare all journal entries for Burke through Jan. 1, 2008.

LO 2 Describe the accounting criteria and procedures for capitalizing leases by the lessee.

Accounting by the Lessee

E21-1 What type of lease is this? Explain.

Capital Lease, #3

Capitalization Criteria:

1. Transfer of ownership → **NO**
2. Bargain purchase option → **NO**
3. Lease term => 75% of economic life of leased property

Lease term	5 yrs.
Economic life	6 yrs.
YES	83.3%

4. Present value of minimum lease payments => 90% of FMV of property

FMV of leased property is unknown.

LO 2 Describe the accounting criteria and procedures for capitalizing leases by the lessee.

Accounting by the Lessee

E21-1 Compute present value of the minimum lease payments.

Payment	$ 8,668
Present value factor (i=10%,n=5)	4.16986
PV of minimum lease payments	$36,144

Journal entry

1/1/07	Leased Machine Under Capital Lease	36,144	
	Leases liability		36,144
	Leases liability	8,668	
	Cash		8,668

LO 2 Describe the accounting criteria and procedures for capitalizing leases by the lessee.

Accounting by the Lessee

E21-1 Lease Amortization Schedule

Date	Lease Payment	10% Interest Expense	Reduction in Liability	Lease Liability
1/1/07				$ 36,144
1/1/07	$ 8,668		$ 8,668	27,476
12/31/07	8,668	2,748	5,920	21,556
12/31/08	8,668	2,156	6,512	15,044
12/31/09	8,668	1,504	7,164	7,880
12/31/10	8,668	788	7,880	0

LO 2 Describe the accounting criteria and procedures for capitalizing leases by the lessee.

Accounting by the Lessee

E21-1 Journal entries for Burke through Jan. 1, 2008.

Journal entry

12/31/07	Depreciation expense	7,229	
	Accumulated depreciation		7,229
	($36,144 ÷ 5 = $7,229)		
	Interest expense	2,748	
	Interest payable		2,748
	[($36,144 – $8,668) X .10]		

LO 2 Describe the accounting criteria and procedures for capitalizing leases by the lessee.

Accounting by the Lessee

E21-1 Journal entries for Burke through Jan. 1, 2008.

Journal entry

Date	Account	Debit	Credit
1/1/08	Lease liability	5,920	
	Interest payable	2,748	
	Cash		8,668

LO 2 Describe the accounting criteria and procedures for capitalizing leases by the lessee.

Accounting by the Lessee

E21-1 Comparison of Capital Lease with Operating Lease

	E21-1 Capital Lease			Operating
Date	Depreciation Expense	Interest Expense	Total	Lease Expense	Diff.
2007	$ 7,229	$ 2,748	$ 9,977	$ 8,668	$1,309
2008	7,229	2,156	9,385	8,668	717
2009	7,229	1,504	8,733	8,668	65
2009	7,229	788	8,017	8,668	(651)
2010	7,228 *		7,228	8,668	(1,440)
	$ 36,144	$ 7,196	$ 43,340	$ 43,340	0

* rounding

LO 3 Contrast the operating and capitalization methods of recording leases.

Accounting by the Lessor

Benefits to the Lessor

1. Interest Revenue.
2. Tax Incentives.
3. High Residual Value.

LO 4 Identify the classifications of leases for the lessor.

Accounting by the Lessor

Economics of Leasing

A lessor determines the amount of the rental, based on the rate of return needed to justify leasing the asset.

If a residual value is involved (whether guaranteed or not), the company would not have to recover as much from the lease payments

Accounting by the Lessor

E21-10 (Computation of Rental) Morgan Leasing Company signs an agreement on January 1, 2007, to lease equipment to Cole Company. The following information relates to this agreement.

1. The term of the noncancelable lease is 6 years with no renewal option. The equipment has an estimated economic life of 6 years.
2. The cost of the asset to the lessor is $245,000. The fair value of the asset at January 1, 2007, is $245,000.
3. The asset will revert to the lessor at the end of the lease term at which time the asset is expected to have a residual value of $43,622, none of which is guaranteed.
4. The agreement requires annual rental payments, beg. Jan. 1, 2007.
5. Collectibility of the lease payments is reasonably predictable. There are no important uncertainties surrounding the amount of costs yet to be incurred by the lessor.

LO 4 Identify the classifications of leases for the lessor.

Accounting by the Lessor

E21-10 (Computation of Rental) Assuming the lessor desires a 10% rate of return on its investment, calculate the amount of the annual rental payment required.

Residual value		$ 43,622
PV of single sum (i=10%, n=6)	x	0.56447
PV of residual value		$ 24,623

Fair market value of leased equipment		$ 245,000
Present value of residual value	-	(24,623)
Amount to be recovered through lease payment		220,377
PV factor of annunity due (i=10%, n=6)	÷	4.79079
Annual payment required		$ 46,000

LO 4 Identify the classifications of leases for the lessor.

Accounting by the Lessor

Classification of Leases by the Lessor

a. Operating leases.

b. Direct-financing leases.

c. Sales-type leases.

LO 4 Identify the classifications of leases for the lessor.

Accounting by the Lessor

Classification of Leases by the Lessor

Illustration 21-11

Capitalization Criteria (Lessor)

Group I

1. The lease transfers ownership of the property to the lessee.
2. The lease contains a bargain purchase option.
3. The lease term is equal to 75 percent or more of the estimated economic life of the leased property.
4. The present value of the minimum lease payments (excluding executory costs) equals or exceeds 90 percent of the fair value of the leased property.

Group II

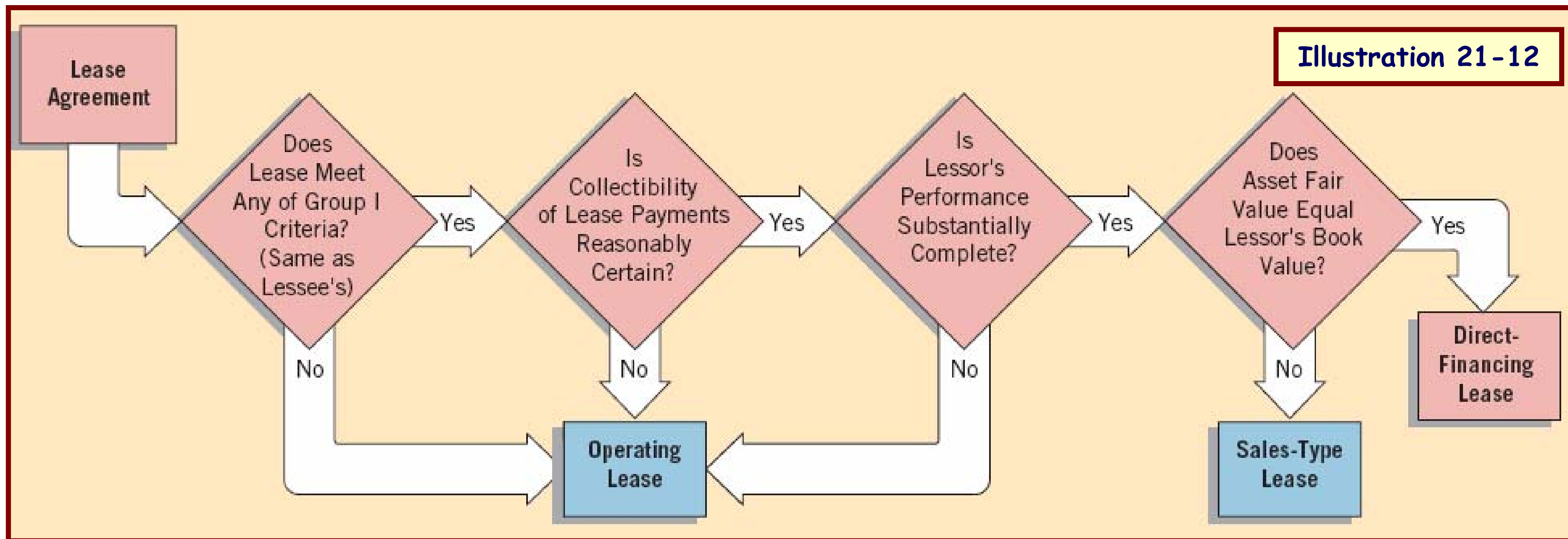
1. Collectibility of the payments required from the lessee is reasonably predictable.
2. No important uncertainties surround the amount of unreimbursable costs yet to be incurred by the lessor under the lease (lessor's performance is substantially complete or future costs are reasonably predictable).

A sales-type lease involves a manufacturer's or dealer's profit, and a direct-financing lease does not.

LO 4 Identify the classifications of leases for the lessor.

Accounting by the Lessor

Classification of Leases by the Lessor



A lessor may classify a lease as an **operating** lease but the lessee may classify the same lease as a **capital** lease.

LO 4 Identify the classifications of leases for the lessor.

Accounting by the Lessor

Direct-Financing Method (Lessor)

In substance the financing of an asset purchase by the lessee.

LO 5 Describe the lessor's accounting for direct-financing leases.

Accounting by the Lessor

E21-10 Prepare an amortization schedule that would be suitable for the lessor.

Date	Lease Payment	10% Interest Revenue	Recovery of Receivable	Lease Receivable
1/1/07				$ 245,000
1/1/07	$ 46,000		$ 46,000	199,000
12/31/07	46,000	19,900	26,100	172,900
12/31/08	46,000	17,290	28,710	144,190
12/31/09	46,000	14,419	31,581	112,609
12/31/10	46,000	11,261	34,739	77,870
12/31/11	46,000	7,787	38,213	39,657
12/31/12	43,622	3,965*	39,657	0

* rounding

LO 5 Describe the lessor's accounting for direct-financing leases.

Accounting by the Lessor

E21-10 Prepare all of the journal entries for the lessor for 2007 and 2008.

Journal entry

Date	Account	Debit	Credit
1/1/07	Lease receivable	245,000	
	Equipment		245,000
1/1/07	Cash	46,000	
	Lease receivable		46,000
12/31/07	Interest receivable	19,900	
	Interest revenue		19,900

Accounting by the Lessor

E21-10 Prepare all of the journal entries for the lessor for 2007 and 2008.

Journal entry

1/1/08	Cash	46,000	
	Lease receivable		26,100
	Interest receivable		19,900
12/31/08	Interest receivable	17,290	
	Interest revenue		17,290

LO 5 Describe the lessor's accounting for direct-financing leases.

Accounting by the Lessor

Operating Method (Lessor)

- Records each rental receipt as rental revenue.
- Depreciates the leased asset in the normal manner.

Special Accounting Problems

1. Residual values.
2. Sales-type leases (lessor).
3. Bargain purchase options.
4. Initial direct costs.
5. Current versus noncurrent classification.
6. Disclosure.

LO 6 Identify special features of lease arrangements that cause unique accounting problems.

Special Accounting Problems

Residual Values

Lessee Accounting for Residual Value

The accounting consequence is that the **minimum lease payments**, include the guaranteed residual value but excludes the unguaranteed residual value.

Illustration: See previous E21-1 (Capital Lease with Unguaranteed Residual Value)

LO 7 Describe the effect of residual values, guaranteed and unguaranteed, on lease accounting.

Special Accounting Problems

Illustration (LESSEE and LESSOR Computations and Entries)

On Jan. 1, 2007, Velde Company (lessee entered into a four-year, noncancellable contact to lease a computer for Exceptional Computer Company (lessor). Annual rentals of $16,228 are to be paid each Jan. 1. The cost of the computer to Exceptional Computer Company was $60,000 and has an estimated useful life of four years and a $5,000 residual value. Velde has guaranteed the lessor a residual value of $5,000. Velde has an incremental borrowing rate of 12% but has knowledge that Exceptional computer Company used a rate of 10% in setting annual rentals. Collection of the rentals is reasonably predictable and there are no important uncertainties regarding future unreimbursable costs to be incurred by the lessor.

LO 7 Describe the effect of residual values, guaranteed and unguaranteed, on lease accounting.

Special Accounting Problems

Illustration (LESSEE) What is the present value of the minimum lease payments?

Payment	$ 16,228
PV of annunity due (i=10%, n=4)	3.48685
PV of residual value	56,585
Residual value	5,000
PV of single sum (i=10%, n=4)	0.68301
PV of residual value	3,415
Total Present Value	$ 60,000

LO 7 Describe the effect of residual values, guaranteed and unguaranteed, on lease accounting.

Special Accounting Problems

Illustration (LESSEE) What type of lease is this? Explain.

Capital Lease, #3

Capitalization Criteria:

1. Transfer of ownership → **NO**
2. Bargain purchase option → **NO**
3. Lease term => 75% of economic life of leased property

Lease term	4 yrs.
Economic life	4 yrs.
YES	100%

4. Present value of minimum lease payments => 90% of FMV of property

   FMV of leased property is unknown.

LO 7 Describe the effect of residual values, guaranteed and unguaranteed, on lease accounting.

Special Accounting Problems

Illustration (LESSEE) Prepare an amortization schedule that would be suitable for the Velde.

Date	Lease Payment	10% Interest Expense	Reduction of Liability	Lease Liability
1/1/07				$ 60,000
1/1/07	$ 16,228		$ 16,228	43,772
12/31/07	16,228	4,377	11,851	31,921
12/31/08	16,228	3,192	13,036	18,885
12/31/09	16,228	1,889	14,339	4,546
12/31/10	5,000	454 *	4,546	0

* rounding

LO 7 Describe the effect of residual values, guaranteed and unguaranteed, on lease accounting.

Special Accounting Problems

Illustration (LESSEE) Prepare all of the journal entries for the Velde for 2007 and 2008.

Journal entry

Date	Account	Debit	Credit
1/1/07	Lease computer	60,000	
	Lease liability		60,000
1/1/07	Lease liability	16,228	
	Cash		16,228
12/31/07	Interest expense	4,377	
	Interest payable		4,377
12/31/07	Depreciation expense	13,750	
	Accumulated Depreciation		13,750

($60,000 – 5,000) / 4 = $13,750

LO 7 Describe the effect of residual values, guaranteed and unguaranteed, on lease accounting.

Special Accounting Problems

Illustration (LESSEE) Prepare all of the journal entries for the Velde for 2007 and 2008.

Journal entry

Date	Account	Debit	Credit
1/1/08	Interest payable	4,377	
	Lease liability	11,851	
	Cash		16,228
12/31/08	Interest expense	3,192	
	Interest payable		3,192
12/31/08	Depreciation expense	13,750	
	Accumulated Depreciation		13,750

Residual Values

Lessor Accounting for Residual Value

Lessor works on the assumption that it will realize the residual value at the end of the lease term whether guaranteed or unguaranteed.

Special Accounting Problems

Illustration (LESSOR) Calculation of the annual rental payment.

Residual value		$	5,000
PV of single sum (i=10%, n=4)	×		0.68301
PV of residual value		$	3,415
Cost of equipment to be recovered		$	60,000
Present value of residual value	-		(3,415)
Amount to be recovered through lease payment			56,585
PV factor of annunity due (i=10%, n=4)	÷		3.48685
Annual payment required		$	16,228

LO 7 Describe the effect of residual values, guaranteed and unguaranteed, on lease accounting.

Special Accounting Problems

Illustration (LESSOR) Prepare an amortization schedule that would be suitable for the Exceptional.

Date	Lease Payment	10% Interest Revenue	Recovery of Receivable	Lease Receivable
1/1/07				$ 60,000
1/1/07	$ 16,228		$ 16,228	43,772
12/31/07	16,228	4,377	11,851	31,921
12/31/08	16,228	3,192	13,036	18,885
12/31/09	16,228	1,889	14,339	4,546
12/31/10	5,000	454 *	4,546	0

* rounding

LO 7 Describe the effect of residual values, guaranteed and unguaranteed, on lease accounting.

Special Accounting Problems

Illustration (LESSOR) Prepare all of the journal entries for the Exceptional for 2007 and 2008.

Journal entry

Date	Account	Debit	Credit
1/1/07	Lease receivable	60,000	
	Equipment		60,000
1/1/07	Cash	16,228	
	Lease receivable		16,228
12/31/07	Interest receivable	4,377	
	Interest revenue		4,377

LO 7 Describe the effect of residual values, guaranteed and unguaranteed, on lease accounting.

Special Accounting Problems

Illustration (LESSOR) Prepare all of the journal entries for the Exceptional for 2007 and 2008.

Journal entry

Date	Account	Debit	Credit
1/1/08	Cash	16,228	
	Lease receivable		11,851
	Interest receivable		4,377
12/31/07	Interest receivable	3,192	
	Interest revenue		3,192

Special Accounting Problems

Sales-Type Leases (Lessor)

- Primary difference between a direct-financing lease and a **sales-type lease** is the manufacturer's or dealer's gross profit (or loss).
- Lessor records the sale price of the asset, the cost of goods sold and related inventory reduction, and the lease receivable.
- Difference in accounting for guaranteed and unguaranteed residual values.

LO 8 Describe the lessor's accounting for sales-type leases.

Special Accounting Problems

Bargain Purchase Option (Lessee)

- Present value of the minimum lease payments must include the present value of the option.
- Only difference between the accounting treatment for a bargain purchase option and a guaranteed residual value of identical amounts is in the computation of the annual depreciation.

LO 6 Identify special features of lease arrangements that cause unique accounting problems.

Special Accounting Problems

Initial Direct Costs (Lessor)

The accounting for initial direct costs:

- For **operating leases**, the lessor should defer initial direct costs.
- For **sales-type leases**, the lessor expenses the initial direct costs.
- For a **direct-financing lease**, the lessor adds initial direct costs to the net investment.

Special Accounting Problems

Current versus Noncurrent

FASB Statement No. 13 does not indicate how to measure the current and noncurrent amounts.

It requires that for the lessee the "obligations shall be separately identified on the balance sheet as obligations under capital leases and shall be subject to the same considerations as other obligations in classifying them with current and noncurrent liabilities in classified balance sheets."

LO 6 Identify special features of lease arrangements that cause unique accounting problems.

Special Accounting Problems

Disclosing Lease Data

1. General description of the nature of the lease.
2. Nature, timing and amount of cash inflows and outflows associated with leases, including payments for each of the five succeeding years.
3. Amount of lease revenues and expenses reported in the income statement each period.
4. Description and amounts of leased assets by major balance sheet classification and related liabilities.
5. Amounts receivable and unearned revenues under lease.

LO 9 List the disclosure requirements for leases.

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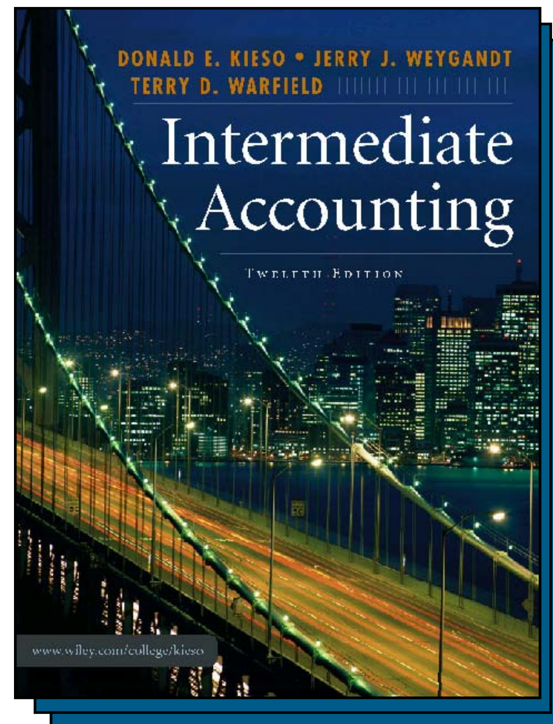
Accounting Changes and Error Analysis

Chapter 22

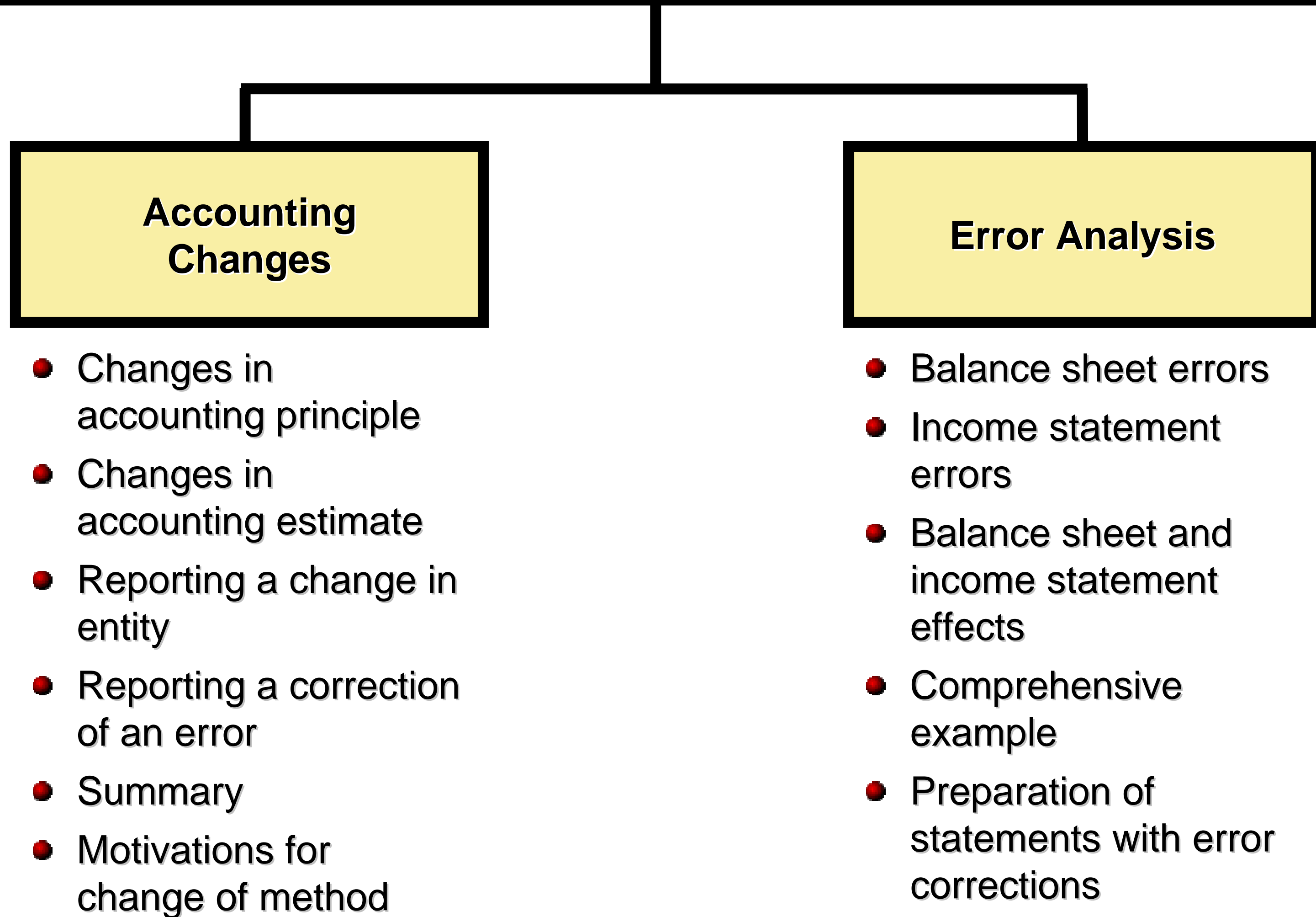
Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Identify the types of accounting changes.
2. Describe the accounting for changes in accounting principles.
3. Understand how to account for retrospective accounting changes.
4. Understand how to account for impracticable changes.
5. Describe the accounting for changes in estimates.
6. Identify changes in a reporting entity.
7. Describe the accounting for correction of errors.
8. Identify economic motives for changing accounting methods.
9. Analyze the effect of errors.


Accounting Changes and Error Analysis
Accounting Changes
Error Analysis
Changes in accounting principle
Changes in accounting estimate
Reporting a change in entity
Reporting a correction of an error
Summary
Motivations for change of method
Balance sheet errors
Income statement errors
Balance sheet and income statement effects
Comprehensive example
Preparation of statements with error corrections

Accounting Changes

Accounting alternatives:

1) Diminish the comparability of financial information.
2) Obscure useful historical trend data.

Types of Accounting Changes:

- Change in Accounting Principle.
- Changes in Accounting Estimate.
- Change in Reporting Entity.

Errors are not considered an accounting change.

LO 1 Identify the types of accounting changes.

Changes in Accounting Principle

A **change** from one generally accepted accounting principle to another. Examples include:

- Average cost to LIFO.
- Completed-contract to percentage-of-completion.

> Adoption of a new principle in recognition of events that have occurred for the first time or that were previously immaterial is not an accounting change.

Changes in Accounting Principle

Three approaches for reporting changes:

1) Currently (cumulative effect).
2) Retrospectively.
3) Prospectively (in the future).

FASB requires use of the retrospective approach.

LO 2 Describe the accounting for changes in accounting principles.

Changes in Accounting Principle

Retrospective Accounting Change Approach

Company reporting the change

1) adjusts its financial statements for each prior period presented to the same basis as the new accounting principle.
2) adjusts the carrying amounts of assets and liabilities as of the beginning of the first year presented, plus the opening balance of retained earnings.

LO 3 Understand how to account for retrospective accounting changes.

Retrospective Change Example

Example (Retrospective Change) Buildmore Construction Company used the completed contract method to account for long-term construction contracts for financial accounting and tax purposes in 2007, its first year of operations. In 2008, the company decided to change to the percentage-of-completion method for financial accounting purposes. Income before long-term contracts and taxes in 2007 and 2008 was $80,000 and $100,000. The tax rate is 40% and the company will continue to use the completed contract method for tax purposes.

LO 3 Understand how to account for retrospective accounting changes.

Retrospective Change Example

Example Income from Long-Term Contracts

Date	Percentage-of-Completion	Completed Contract	Difference	40% Tax Effect	Net of Tax
2007	$ 40,000	$ 25,000	$ 15,000	$ 6,000	$ 9,000
2008	60,000	55,000	5,000	2,000	3,000

Journal entry

2008	Construction in progress	15,000	
	Deferred tax liability		6,000
	Retained earnings		9,000

LO 3 Understand how to account for retrospective accounting changes.

Retrospective Change Example

Example Comparative Income Statements

	2008	Restated 2007	Previous 2007
Income before LT contracts	$ 100,000	$ 80,000	$ 80,000
Income from LT contracts	60,000	40,000	25,000
Income before tax	160,000	120,000	105,000
Income tax	64,000	48,000	42,000
Net income	$ 96,000	$ 72,000	$ 63,000

LO 3 Understand how to account for retrospective accounting changes.

Retrospective Change Example

Example Retained Earnings Statement

	2008	Restated 2007	Previous 2007
Beg. balance previously reported	$ 63,000	$ -	$ -
Effect of accounting change	9,000	-	-
Beg. balance restated	72,000	-	-
Net income	96,000	72,000	63,000
Ending balance	$ 168,000	$ 72,000	$ 63,000

LO 3 Understand how to account for retrospective accounting changes.

Changes in Accounting Principle

Impracticability

Companies should not use retrospective application if one of the following conditions exists:

1. Company cannot determine the effects of the retrospective application.
2. Retrospective application requires assumptions about management's intent in a prior period.
3. Retrospective application requires significant estimates that the company cannot develop.

If any of the above conditions exists, the company **prospectively** applies the new accounting principle.

LO 4 Understand how to account for impracticable changes.

Changes in Accounting Estimate

The following items require estimates.

1. Uncollectible receivables.
2. Inventory obsolescence.
3. Useful lives and salvage values of assets.
4. Periods benefited by deferred costs.
5. Liabilities for warranty costs and income taxes.
6. Recoverable mineral reserves.
7. Change in depreciation methods.

Companies report prospectively changes in accounting estimates.

LO 5 Describe the accounting for changes in estimates.

Change in Estimate Example

Arcadia HS, purchased equipment for $510,000 which was estimated to have a useful life of 10 years with a salvage value of $10,000 at the end of that time. Depreciation has been recorded for 7 years on a straight-line basis. In 2005 (year 8), it is determined that the total estimated life should be 15 years with a salvage value of $5,000 at the end of that time.

Required:

- What is the journal entry to correct the prior years' depreciation?
- Calculate the depreciation expense for 2005.

No Entry Required

Change in Estimate Example

After 7 years

Equipment cost	$510,000
Salvage value	- 10,000
Depreciable base	500,000
Useful life (original)	10 years
Annual depreciation	$ 50,000

$ 50,000 × 7 years = $350,000

First, establish NBV at date of change in estimate.

Balance Sheet (Dec. 31, 2004)

Fixed Assets:

Equipment	$510,000
Accumulated depreciation	350,000
Net book value (NBV)	$160,000

LO 5 Describe the accounting for changes in estimates.

Change in Estimate Example

After 7 years

Net book value	$160,000
Salvage value (new)	5,000
Depreciable base	155,000
Useful life remaining	8 years
Annual depreciation	$ 19,375

Second, calculate depreciation expense for 2005.

Journal entry for 2005

Depreciation expense	19,375	
Accumulated depreciation		19,375

LO 5 Describe the accounting for changes in estimates.

Reporting a Change in Entity

Examples of a change in reporting entity are:

1. Presenting consolidated statements in place of statements of individual companies.
2. Changing specific subsidiaries that constitute the group of companies for which the entity presents consolidated financial statements.
3. Changing the companies included in combined financial statements.
4. Changing the cost, equity, or consolidation method of accounting for subsidiaries and investments.

Reported by changing the financial statements of all prior periods presented.

LO 6 Identify changes in a reporting entity.

Reporting a Correction of an Error

Accounting errors include the following types:

1. A change from an accounting principle that is **not** generally accepted to an accounting principle that is acceptable.
2. Mathematical mistakes.
3. Changes in estimates that occur because a company did not prepare the estimates in good faith.
4. Failure to accrue or defer certain expenses or revenues.
5. Misuse of facts.
6. Incorrect classification of a cost as an expense instead of an asset, and vice versa.

LO 7 Describe the accounting for correction of errors.

Reporting a Correction of an Error

- All material errors must be corrected.
- Record **corrections of errors** from prior periods as an adjustment to the beginning balance of retained earnings in the current period.
- Such corrections are called **prior period adjustments**.
- For comparative statements, a company should restate the prior statements affected, to correct for the error.

Retained Earnings Statement

Woods, Inc.
Statement of Retained Earnings
For the Year Ended December 31, 2007

Balance, January 1	$	1,050,000
Net income		360,000
Dividends		(300,000)
Balance, December 31	$	1,110,000

Before issuing the report for the year ended December 31, 2007, you discover a $62,500 error that caused the 2006 inventory to be overstated (overstated inventory caused COGS to be lower and thus net income to be higher in 2006). Would this discovery have any impact on the reporting of the Statement of Retained Earnings for 2007? Assume a 20% tax rate.

LO 7 Describe the accounting for correction of errors.

Retained Earnings Statement

Woods, Inc.
Statement of Retained Earnings
For the Year Ended December 31, 2007

Balance, January 1, as previously reported	$	1,050,000
Prior period adjustment, net of tax		(50,000)
Balance, January 1, as restated		1,000,000
Net income		360,000
Dividends		(300,000)
Balance, December 31	$	1,060,000

LO 7 Describe the accounting for correction of errors.

Summary of Accounting Changes and Corrections of Errors

- Changes in accounting principle are appropriate **only** when a company demonstrates that the newly adopted generally accepted accounting principle is **preferable** to the existing one.
- Companies and accountants determine preferability on the basis of whether the new principle constitutes an **improvement in financial reporting**, not on the basis of the income tax effect alone.

Motivations for Change of Accounting Method

Some reasons are as follows:

1. Political costs.
2. Capital Structure.
3. Bonus Payments.
4. Smooth Earnings.

LO 8 Identify economic motives for changing accounting methods.

Section 2 – Error Analysis

Companies must answer three questions:

1. What type of error is involved?
2. What entries are needed to correct for the error?
3. After discovery of the error, how are financial statements to be restated?

Companies treat errors as **prior-period adjustments** and report them in the current year as adjustments to the beginning balance of Retained Earnings.

Section 2 – Error Analysis

Balance Sheet Errors

Balance sheet errors affect only the presentation of an asset, liability, or stockholders' equity account.

When the error is discovered in the error year, the company reclassifies the item to its proper position.

If the error is discovered in a prior year, the company should restate the balance sheet of the prior year for comparative purposes.

Section 2 – Error Analysis

Income Statement Errors

Improper classification of revenues or expenses.

A company must make a reclassification entry when it discovers the error in the error year.

If the error is discovered in a prior year, the company should restate the income statement of the prior year for comparative purposes.

Section 2 – Error Analysis

Balance Sheet and Income Statement Errors

Errors affecting both balance sheet and income statement.

This type of error classified as:

1. Counterbalancing errors
2. Noncounterbalancing errors

Section 2 – Error Analysis

Counterbalancing Errors

Will be offset or corrected over two periods.

If company has closed the books:

a. If the error is already counterbalanced, no entry is necessary.

b. If the error is not yet counterbalanced, make entry to adjust the present balance of retained earnings.

For comparative purposes, restatement is necessary even if a correcting journal entry is not required.

Section 2 – Error Analysis

Counterbalancing Errors

Will be offset or corrected over two periods.

If company has not closed the books:

a. If error already counterbalanced, make entry to correct the error in the current period and to adjust the beginning balance of Retained Earnings.

b. If error not yet counterbalanced, make entry to adjust the beginning balance of Retained Earnings.

Section 2 – Error Analysis

Noncounterbalancing Errors

Not offset in the next accounting period.

Companies must make correcting entries, even if they have closed the books.

Error Analysis Example

E22-19 (Error Analysis; Correcting Entries) A partial trial balance of Julie Hartsack Corporation is as follows on December 31, 2008.

	Dr.	Cr.
Supplies on hand	$ 2,700	
Accured salaries and wages		$ 1,500
Interest receivable	5,100	
Prepaid insurance	90,000	
Unearned rent		0
Accured interest payable		15,000

Instructions

(a) Assuming that the books have not been closed, what are the adjusting entries necessary at December 31, 2008?

Error Analysis Example

(a) Assuming that the books have not been closed, what are the adjusting entries necessary at December 31, 2008?

1. A physical count of supplies on hand on December 31, 2008, totaled $1,100.

Supplies expense	1,600	
Supplies on hand		1,600

2. Accrued salaries and wages on December 31, 2008, amounted to $4,400.

Salaries and wages expense	2,900	
Accured salaries and wages		2,900

LO 9 Analyze the effect of errors.

Error Analysis Example

(a) Assuming that the books have not been closed, what are the adjusting entries necessary at December 31, 2008?

3. Accrued interest on investments amounts to $4,350 on December 31, 2008.

Interest revenue	750	
Interest receivable		750

4. The unexpired portions of the insurance policies totaled $65,000 as of December 31, 2008.

Insurance expense	25,000	
Prepaid insurance		25,000

Error Analysis Example

(a) Assuming that the books have not been closed, what are the adjusting entries necessary at December 31, 2008?

5. $28,000 was received on January 1, 2008 for the rent of a building for both 2008 and 2009. The entire amount was credited to rental income.

Rental income	14,000	
Unearned rent		14,000

6. Depreciation for the year was erroneously recorded as $5,000 rather than the correct figure of $50,000.

Depreciation expense	45,000	
Accumulated depreciation		45,000

LO 9 Analyze the effect of errors.

Error Analysis Example

E22-19 (Error Analysis; Correcting Entries) A partial trial balance of Julie Hartsack Corporation is as follows on December 31, 2008.

	Dr.	Cr.
Supplies on hand	$ 2,700	
Accured salaries and wages		$ 1,500
Interest receivable	5,100	
Prepaid insurance	90,000	
Unearned rent		0
Accured interest payable		15,000

Instructions

(b) Assuming that the books have been closed, what are the adjusting entries necessary at December 31, 2008?

Error Analysis Example

(b) Assuming that the books have been closed, what are the adjusting entries necessary at December 31, 2008?

1. A physical count of supplies on hand on December 31, 2008, totaled $1,100.

Retained earnings	1,600	
Supplies on hand		1,600

2. Accrued salaries and wages on December 31, 2008, amounted to $4,400.

Retained earnings	2,900	
Accured salaries and wages		2,900

Error Analysis Example

(b) Assuming that the books have been closed, what are the adjusting entries necessary at December 31, 2008?

3. Accrued interest on investments amounts to $4,350 on December 31, 2008.

Retained earnings	750	
Interest receivable		750

4. The unexpired portions of the insurance policies totaled $65,000 as of December 31, 2008.

Retained earnings	25,000	
Prepaid insurance		25,000

Error Analysis Example

(b) Assuming that the books have been closed, what are the adjusting entries necessary at December 31, 2008?

5. $28,000 was received on January 1, 2008 for the rent of a building for both 2008 and 2009. The entire amount was credited to rental income.

Retained earnings	14,000	
Unearned rent		14,000

6. Depreciation for the year was erroneously recorded as $5,000 rather than the correct figure of $50,000.

Retained earnings	45,000	
Accumulated depreciation		45,000

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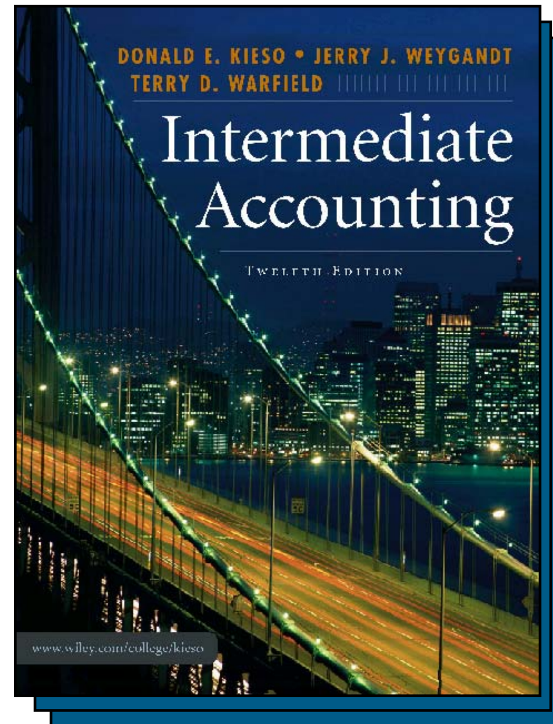
Statement of Cash Flows

Chapter 23

Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Describe the purpose of the statement of cash flows.
2. Identify the major classifications of cash flows.
3. Differentiate between net income and net cash flows from operating activities.
4. Contrast the direct and indirect methods of calculating net cash flow from operating activities.
5. Determine net cash flows from investing and financing activities.
6. Prepare a statement of cash flows.
7. Identify sources of information for a statement of cash flows.
8. Discuss special problems in preparing a statement of cash flows.
9. Explain the use of a worksheet in preparing a statement of cash flows.

Statement of Cash Flows

Preparation of the Statement	Special Problems in Statement Preparation	Use of a Worksheet
• Usefulness • Classification of cash flows • Format of statement • Steps in preparation • Examples • Sources of information • Indirect vs. direct method	• Adjustments similar to depreciation • Accounts receivable (net) • Other working capital changes • Net losses • Gains • Stock options • Postretirement benefit costs • Extraordinary items • Significant noncash transactions	• Preparation of worksheet • Analysis of transactions • Preparation of final statement

Section 1 - Preparation of the Statement of Cash Flows

Primary purpose:

To provide information about a company's cash receipts and cash payments during a period.

Secondary objective:

To provide cash-basis information about the company's operating, investing, and financing activities.

Usefulness of the Statement of Cash Flows

Provides information to help assess:

1. Entity's ability to generate future cash flows.
2. Entity's ability to pay dividends and obligations.
3. Reasons for difference between net income and net cash flow from operating activities.
4. Cash and noncash investing and financing transactions.

Classification of Cash Flows

Operating Activities

Income Statement Items

Investing Activities

Generally Long-Term Asset Items

Financing Activities

Generally Long-Term Liability and Equity Items

The term "Cash" =
Cash and cash equivalents.

Classification of Cash Flows

Cash and Cash Equivalent

Text Footnote 3

3 The basis recommended by the FASB for the statement of cash flows is actually "cash and cash equivalents." **Cash equivalents** are short-term, highly liquid investments that are both: (a) readily convertible to known amounts of cash, and (b) so near their maturity that they present insignificant risk of changes in interest rates. Generally, only investments with original maturities of three months or less qualify under this definition. Examples of cash equivalents are Treasury bills, commercial paper, and money market funds purchased with cash that is in excess of immediate needs.

LO 2 Identify the major classifications of cash flows.

Classification of Cash Flows

Classification of Typical Inflows and Outflows

Illustration 23-1

Operating

Cash inflows

From sales of goods or services.

From returns on loans (interest) and on equity securities (dividends).

Cash outflows

To suppliers for inventory.

To employees for services.

To government for taxes.

To lenders for interest.

To others for expenses.

Income Statement Items

LO 2 Identify the major classifications of cash flows.

Classification of Cash Flows

Classification of Typical Inflows and Outflows

Illustration 23-1

Investing

Cash inflows

From sale of property, plant, and equipment.

From sale of debt or equity securities of other entities.

From collection of principal on loans to other entities.

Cash outflows

To purchase property, plant, and equipment.

To purchase debt or equity securities of other entities.

To make loans to other entities.

Generally Long-Term Asset Items

LO 2 Identify the major classifications of cash flows.

Classification of Cash Flows

Classification of Typical Inflows and Outflows

Illustration 23-1

Financing

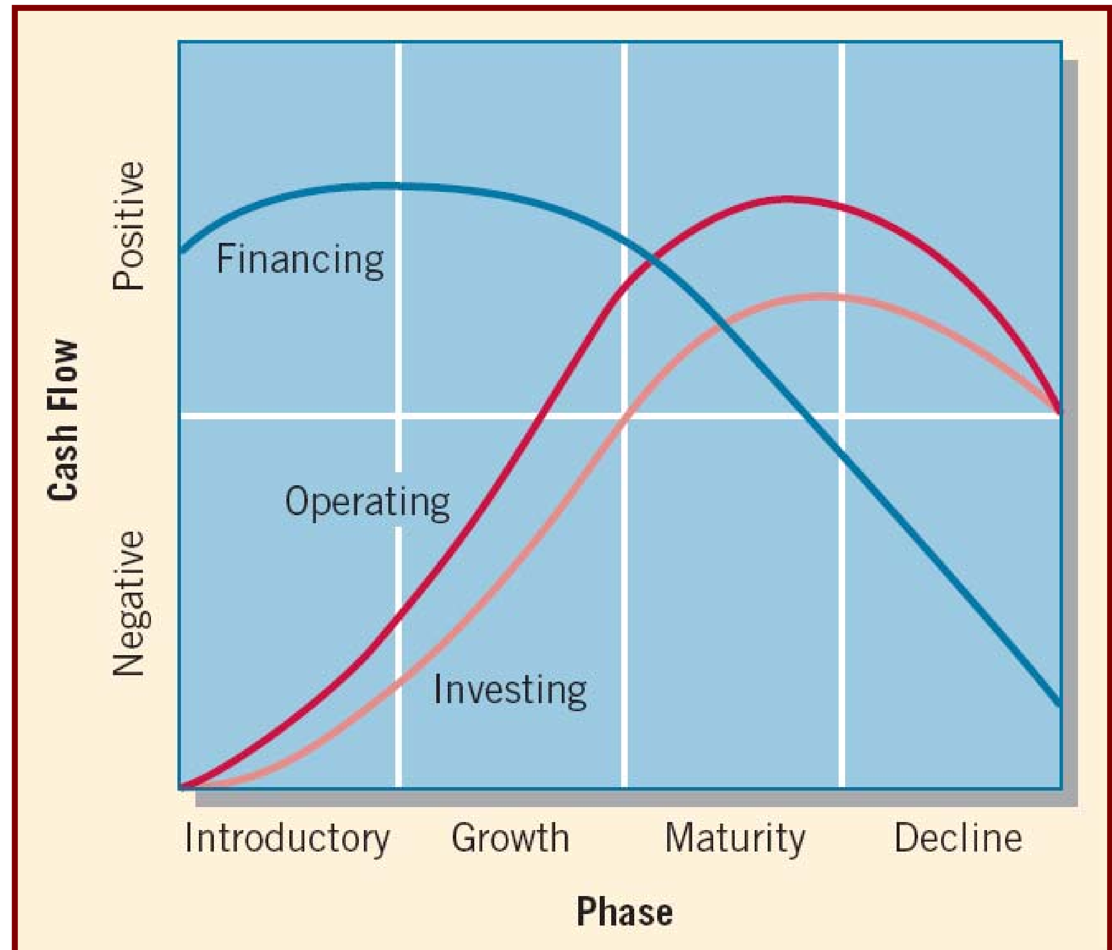
- Cash inflows
  - From sale of equity securities.
  - From issuance of debt (bonds and notes).
- Cash outflows
  - To stockholders as dividends.
  - To redeem long-term debt or reacquire capital stock.

Generally Long-Term Liability and Equity Items

LO 2 Identify the major classifications of cash flows.

Classification of Cash Flows

Typical Company Product Life Cycle



LO 2 Identify the major classifications of cash flows.

Format of the Statement of Cash Flows

Order of Presentation:

1. Operating activities.
2. Investing activities.
3. Financing activities.

Direct Method

Indirect Method

Report inflows and outflows from investing and financing activities separately.

Steps in Preparation

Three Sources of Information:

1. Comparative balance sheets
2. Current income statement
3. Selected transaction data

Three Major Steps:

Step 1. Determine change in cash.

Step 2. Determine net cash flow from operating activities.

Step 3. Determine net cash flows from investing and financing activities.

LO 2 Identify the major classifications of cash flows.

Step 2: Determine Net Cash Flow from Operating Activities

A company must determine revenues and expenses on a **cash basis**.

Eliminate the effects of income statement transactions that do not result in an increase or decrease in cash.

Convert net income to net cash flow from operating activities through either a **direct** method or an **indirect** method.

LO 3 Differentiate between net income and net cash flows from operating activities.

Example – Operating Section

Indirect Method

Adjusts net income for items not affecting cash.

Illustration 23-8

Net income		$34,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Increase in accounts receivable	$(36,000)	
Increase in accounts payable	5,000	(31,000)
Net cash provided by operating activities		$ 3,000

Common adjustments to Net Income (Loss):

- Depreciation and amortization expense.
- Gain or loss on disposition of long-term assets.
- Change in current assets and current liabilities.

LO 4 Contrast the direct and indirect methods of calculating net cash flow from operating activities.

E23-6 (Operating Activities—Indirect Method)

Krauss Company's financial statements for the year ended December 31, 2007, contained the following condensed information.

	2007	2006	Change
Revenues from fees	$ 840,000		
Operating expenses	624,000		
Depreciation expense	60,000		
Loss on sale of equipment	26,000		
Income before income tax	130,000		
Income tax	40,000		
Net income	$ 90,000		
Accounts receivable	$ 37,000	$ 54,000	$ (17,000)
Accounts payable	41,000	31,000	10,000
Income taxes payable	4,000	8,500	(4,500)

LO 4 Contrast the direct and indirect methods of calculating net cash flow from operating activities.

E23-6 (Operating Activities—Indirect Method)

Prepare the operating activities section of the statement of cash flows using the indirect method (Step 2).

Cash flows from operating activities	
Net income	$ 90,000
Adjustment to reconcile net income	
to net cash provided by operating activities:	
Depreciation expense	60,000
Loss on sale of equipment	26,000
Decrease in accounts receivable	17,000
Increase in accounts payable	10,000
Decrease in income taxes payable	(4,500)
Net cash provided by operating activities	198,500

LO 4 Contrast the direct and indirect methods of calculating net cash flow from operating activities.

Example – Operating Section

Direct Method

Deducts operating cash disbursements from operating cash receipts.

Illustration 23-6

Cash collected from revenues	$89,000
Cash payments for expenses	80,000
Income before income taxes	9,000
Cash payments for income taxes	6,000
Net cash provided by operating activities	$ 3,000

"Net cash provided by operating activities" is the equivalent of cash basis net income.

E23-5 (Operating Activities—Direct Method)

Krauss Company's financial statements for the year ended December 31, 2007, contained the following condensed information.

	2007	2006	Change
Revenues from fees	$ 840,000		
Operating expenses	624,000		
Depreciation expense	60,000		
Loss on sale of equipment	26,000		
Income before income tax	130,000		
Income tax	40,000		
Net income	$ 90,000		
Accounts receivable	$ 37,000	$ 54,000	$ (17,000)
Accounts payable	41,000	31,000	10,000
Income taxes payable	4,000	8,500	(4,500)

Assume accounts payable relates to operating expenses.

LO 4 Contrast the direct and indirect methods of calculating net cash flow from operating activities.

E23-5 (Operating Activities—Direct Method)

Prepare the operating activities section of the statement of cash flows using the Direct method (Step 2).

Illustration 23-22

Cash receipts from customers	=	Revenues from sales	+ Decrease in accounts receivable or − Increase in accounts receivable

Computation of cash receipts from customers:

Revenue from fees	$ 840,000
Add: Decrease in accounts receivable	17,000
Cash receipts from customers	$ 857,000

LO 4 Contrast the direct and indirect methods of calculating net cash flow from operating activities.

E23-5 (Operating Activities—Direct Method)

Prepare the operating activities section of the statement of cash flows using the Direct method (Step 2).

Alternate computation of cash receipts from customers:

Accounts receivable, balance 2006	$ 54,000
Add: Revenue from fees	840,000
Deduct: Cash receipts from customers	(857,000)
Accounts receivable, balance 2007	$ 37,000

LO 4 Contrast the direct and indirect methods of calculating net cash flow from operating activities.

E23-5 (Operating Activities—Direct Method)

Prepare the operating activities section of the statement of cash flows using the Direct method (Step 2).

Computation of cash payments for operating expenses:

Operating expenses	$ 624,000
Deduct: Increase in accounts payable	(10,000)
Cash payments for operating expenses	$ 614,000

or

Accounts payable, balance 2006	$ 31,000
Add: Operating expenses	624,000
Deduct: Cash payments for operating expenses	(614,000)
Accounts payable, balance 2007	$ 41,000

E23-5 (Operating Activities—Direct Method)

Prepare the operating activities section of the statement of cash flows using the Direct method (Step 2).

Computation of cash payments for income taxes:

Income tax expense	$ 40,000
Add: Decrease in income tax payable	4,500
Cash payments for income taxes	$ 44,500

or

Income tax payable, balance 2006	$ 8,500
Add: Income tax expense	40,000
Deduct: Cash payments for income taxes	(44,500)
Income tax payable, balance 2007	$ 4,000

LO 4 Contrast the direct and indirect methods of calculating net cash flow from operating activities.

E23-5 (Operating Activities—Direct Method)

Prepare the operating activities section of the statement of cash flows using the Direct method (Step 2).

Cash flows from operating activities	
Cash receipts from customers	$ 857,000
Cash paid for operating expenses	(614,000)
Cash paid for income taxes	(44,500)
Net cash provided by operating activities	198,500

LO 4 Contrast the direct and indirect methods of calculating net cash flow from operating activities.

Step 3: Determine Net Cash Flow from Investing and Financing Activities

E23-2 (a) Plant assets that had cost $20,000 6 years before and were being depreciated on a straight-line basis over 10 years with no estimated scrap value were sold for $5,300.

Plant assets (cost)	$ 20,000
Accumulated depreciation ([$20,000 / 10] x 6)	12,000
Book value at date of sale	8,000
Sale proceeds	(5,300)
Loss on sale	$ 2,700

LO 5 Determine net cash flows from investing and financing activities.

E23-2 (a)

O — I — F

Statement of Cash Flows	
Cash flow from operating activities	
Net income	$
Adjustment to reconcile net income to cash:	
Loss on sale	2,700
Cash from operations	
Cash flow from investing activities	
Proceeds from sale of plant asset	5,400
Cash from investing activities	
Cash flow from financing activities	
Cash from financing activities	
Net Change in Cash	$

LO 5 Determine net cash flows from investing and financing activities.

E23-2 (b)

E23-2 (b) During the year, 10,000 shares of common stock with a stated value of $10 a share were issued for $43 a share.

Shares sold	10,000
Market value per share	$ 43
Value of shares	$430,000

E23-2 (b)

O | I | F

Statement of Cash Flows	
Cash flow from operating activities	
Net income	$
Adjustment to reconcile net income to cash:	
Cash from operations	
Cash flow from investing activities	
Cash from investing activities	
Cash flow from financing activities	
Sale of common stock	430,000
Cash from financing activities	
Net Change in Cash	$

LO 5 Determine net cash flows from investing and financing activities.

E23-2 (d)

E23-2 (d) The company sustained a net loss for the year of $50,000. Depreciation amounted to $22,000, and a gain of $9,000 was realized on the sale of land for $39,000 cash.

LO 5 Determine net cash flows from investing and financing activities.

E23-2 (d)

O

I

F

Statement of Cash Flows	
Cash flow from operating activities	
Net loss	$ (50,000)
Adjustment to reconcile net income to cash:	
Depreciation expense	22,000
Gain on sale	(9,000)
Cash from operations	
Cash flow from investing activities	
Sale of land	39,000
Cash from investing activities	
Cash flow from financing activities	
Cash from financing activities	
Net Change in Cash	$

LO 5 Determine net cash flows from investing and financing activities.

E23-2 (h)

E23-2 (h) During the year, treasury stock costing $47,000 was purchased.

LO 5 Determine net cash flows from investing and financing activities.

E23-2 (h)

O

I

F

Statement of Cash Flows	
Cash flow from operating activities	
Net income (loss)	
Adjustment to reconcile net income to cash:	
Cash from operations	
Cash flow from investing activities	
Cash from investing activities	
Cash flow from financing activities	
Purchase of company stock	(47,000)
Cash from financing activities	
Net Change in Cash	$

LO 5 Determine net cash flows from investing and financing activities.

Statement of Cash Flows (a,b,d,h)

Statement of Cash Flows		
Cash flow from operating activities		O
Net income (loss)	$ (50,000)	
Adjustment to reconcile net income to cash:		
Depreciation expense	22,000	
Loss on sale	2,700	
Gain on sale	(9,000)	
Cash from operations	(34,300)	
Cash flow from investing activities		I
Sale of plant assets	5,400	
Sale of land	39,000	
Cash from investing activities	44,400	
Cash flow from financing activities		F
Sale of common stock	430,000	
Purchase of company stock	(47,000)	
Cash from financing activities	383,000	
Net Change in Cash	$ 393,100	

LO 6 Prepare a statement of cash flows.

Sources of Information for the Statement of Cash Flows

1. Comparative balance sheets.
2. An analysis of the Retained Earnings.
3. Writedowns, amortization charges, and similar "book" entries, such as depreciation, because they have no effect on cash.

LO 7 Identify sources of information for a statement of cash flows.

Net Cash Flow from Operating Activities—Indirect Versus Direct Method

Net Income

Additions
Depreciation expense
Amortization of intangibles and deferred charges
Amortization of bond discount
Increase in deferred income tax liability
Loss on investment in common stock using equity method
Loss on sale of plant assets
Loss on impairment of assets
Decrease in receivables
Decrease in inventories
Decrease in prepaid expense
Increase in accounts payable
Increase in accrued liabilities

Deductions
Amortization of bond premium
Decrease in deferred income tax liability
Income on investment in common stock using equity method
Gain on sale of plant assets
Increase in receivables
Increase in inventories
Increase in prepaid expense
Decrease in accounts payable
Decrease in accrued liabilities

Indirect Method

LO 7 Identify sources of information for a statement of cash flows.

Net Cash Flow from Operating Activities—Indirect Versus Direct Method

Under the **Direct Method**, companies adjust each item in the income statement from the accrual basis to the cash basis.

Example line items found in the operating section:

- Cash receipts from customers (see E23-5)
- Cash payments to suppliers (see E23-4 to follow)
- Cash payments for operating expenses (see E23-5)
- Cash payments for income taxes (see E23-5)

BE23-4 (Direct Method)

BE 23-4 Azure Corporation's financial statements for 2008, contained the following condensed information (some facts added).

	2008	2007	Change
Sales	$ 200,000		
Cost of goods sold	120,000		
Operating expenses	29,000		
Depreciation expense	21,000		
Net income	$ 30,000		
Inventory	$ 65,000	$ 54,000	$ 11,000
Accounts payable	44,000	31,000	13,000

Calculate "Cash Payments to Suppliers."

LO 7 Identify sources of information for a statement of cash flows.

BE23-4 (Direct Method)

Illustration 23-23

Cash payments to suppliers	=	Cost of goods sold	+ Increase in inventory or − Decrease in inventory	+ Decrease in accounts payable or − Increase in accounts payable

Computation of cash payments to suppliers:

Cost of goods sold	$ 120,000
Add: Increase in inventory	11,000
Purchases	131,000
Deduct: Increase in accounts payable	(13,000)
Deduct: Cash payments to suppliers	$ 118,000

LO 7 Identify sources of information for a statement of cash flows.

BE23-4 (Direct Method)

Alternate Computation of cash payments to suppliers:

Inventory, balance 2007	$ 54,000
Add: Purchases	131,000
Deduct: Cost of good sold	(120,000)
Inventory, balance 2008	$ 65,000

and

Accounts payable, balance 2007	$ 31,000
Add: Purchases	131,000
Deduct: Cash payments to suppliers	(118,000)
Accounts payable, balance 2008	$ 44,000

Direct Versus Indirect Controversy

In Favor of the Direct Method

- Shows operating cash receipts and payments.
- Information about cash receipts and payments is more revealing of a company's ability
  1. to generate sufficient cash from operating activities to pay its debts,
  2. to reinvest in its operations, and
  3. to make distributions to its owners.

Direct Versus Indirect Controversy

In Favor of the Indirect Method

- Focuses on the differences between net income and net cash flow from operating activities.
- Provides link between the statement of cash flows and the income statement and balance sheet.

Special Rules Applying to Indirect Methods

- Disclose Interest paid.
- Disclose Income taxes paid.

Special Problems in Statement Preparation

1. **Adjustments similar to depreciation**

   - Amortization of limited-life intangible assets.
   - Amortization of deferred costs.
   - Amortization of bond discount or premium.
   - Changes in deferred income taxes.
   - Change related to an investment when recording income or loss under the equity method.

Special Problems in Statement Preparation

2. Accounts receivable, net
3. Other working capital changes
4. Net losses
5. Gains
6. Stock options
7. Postretirement benefits
8. Extraordinary items
9. Significant noncash transactions

LO 8 Discuss special problems in preparing a statement of cash flows.

Use of a Worksheet

A worksheet involves the following steps.

Step 1. Enter the balance sheet accounts and their beginning and ending balances in the balance sheet accounts section.

Step 2. Enter the data that explain the changes in the balance sheet accounts and their effects on the statement of cash flows in the reconciling columns of the worksheet.

Step 3. Enter the increase or decrease in cash on the cash line and at the bottom of the worksheet. This entry should enable the totals of the reconciling columns to be in agreement.

LO 9 Explain the use of a worksheet in preparing a statement of cash flows.

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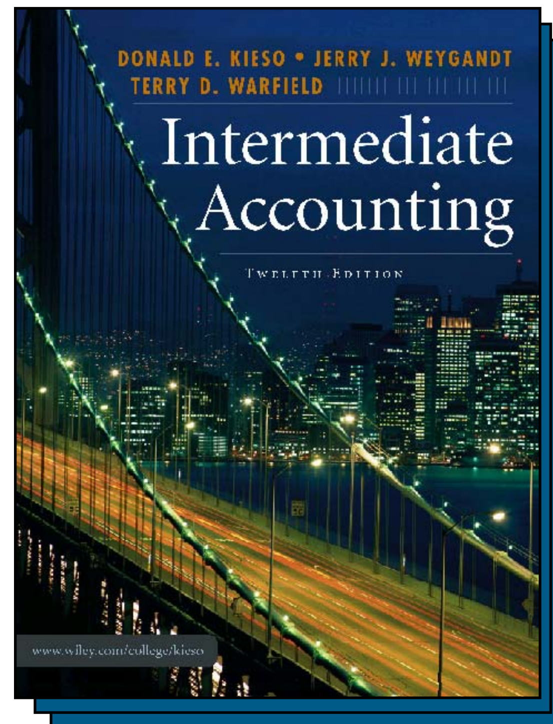
Full Disclosure in Financial Reporting

Chapter 24

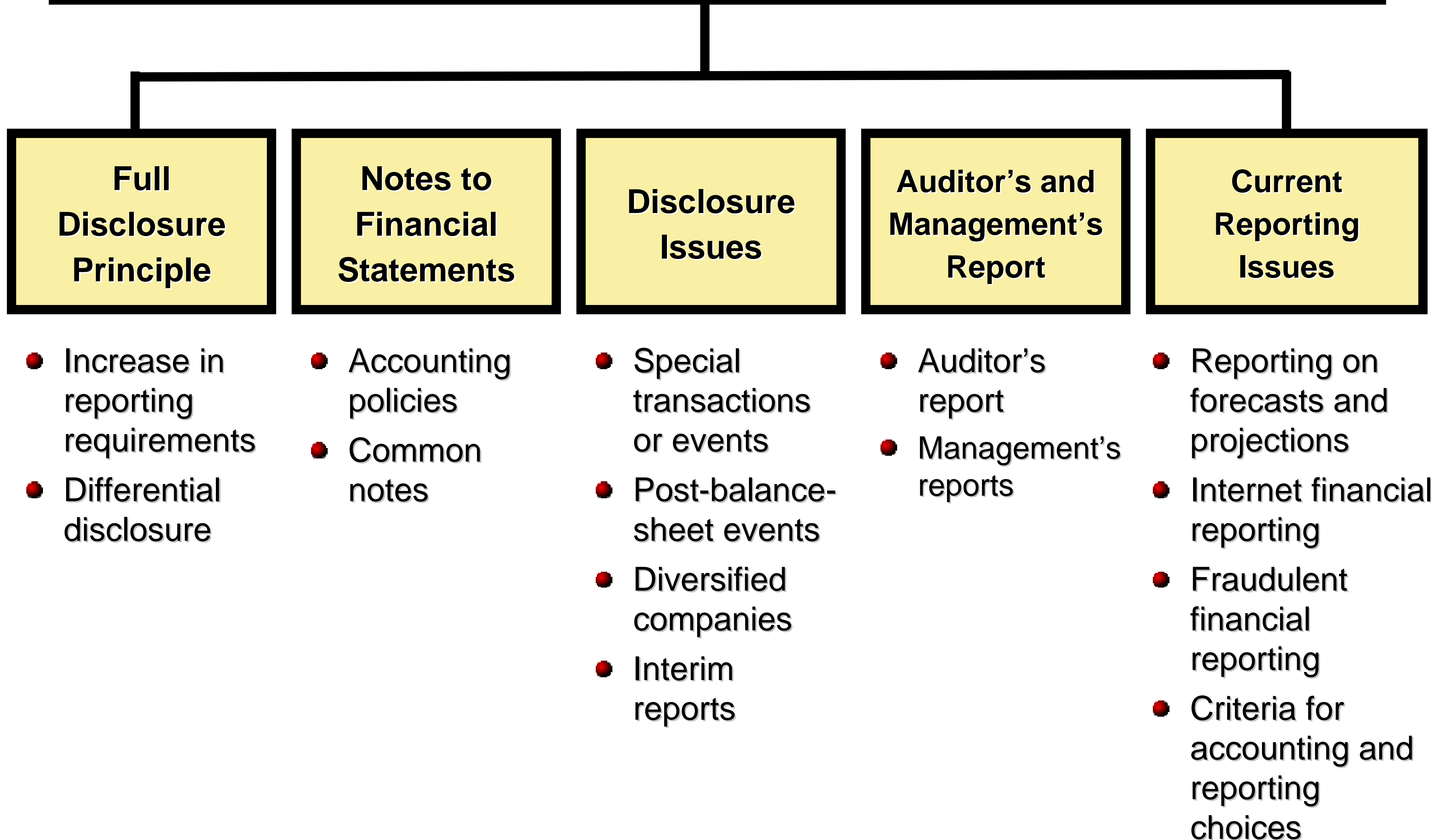
Intermediate Accounting
12th Edition
Kieso, Weygandt, and Warfield



Prepared by Coby Harmon, University of California, Santa Barbara

Learning Objectives

1. Review the full disclosure principle and describe implementation problems.
2. Explain the use of notes in financial statement preparation.
3. Discuss the disclosure requirements for major business segments.
4. Describe the accounting problems associated with interim reporting.
5. Identify the major disclosures in the auditor's report.
6. Understand management's responsibilities for financials.
7. Identify issues related to financial forecasts and projections.
8. Describe the profession's response to fraudulent financial reporting.


Full Disclosure in Financial Reporting
Full Disclosure Principle
Notes to Financial Statements
Disclosure Issues
Auditor's and Management's Report
Current Reporting Issues
Increase in reporting requirements
Differential disclosure
Accounting policies
Common notes
Special transactions or events
Post-balance-sheet events
Diversified companies
Interim reports
Auditor's report
Management's reports
Reporting on forecasts and projections
Internet financial reporting
Fraudulent financial reporting
Criteria for accounting and reporting choices

Full Disclosure Principle

Full disclosure principle calls for financial reporting of any financial facts significant enough to influence the judgment of an informed reader.

Financial disasters at **Microstrategy**, **PharMor**, **WorldCom**, and **Global Crossing** highlight the difficulty of implementing the full disclosure principle.

Full Disclosure Principle

All Information Useful for Investment, Credit, and Similar Decisions

Financial Reporting

Affected by Existing FASB Standards

Basic Financial Statements

Illustration 24-1

Financial Statements	Notes to Financial Statements	Supplementary Information	Other Means of Financial Reporting	Other Information
• Balance sheet • Statement of Income • Statement of Cash Flows • Statement of Changes in Stockholders' Equity	Examples • Accounting Policies • Contingencies • Inventory Methods • Shares Outstanding • Alternative Measures	Examples: • Changing Prices Disclosures • Oil and Gas Reserves Information	Examples: • Management Discussion and Analysis • Letters to Stockholders	Examples: • Competition and Order Backlog in SEC Forms • Analysts' reports • Economic Statistics • Articles

LO 1 Review the full disclosure principle and describe implementation problems.

Full Disclosure Principle

Increase in Reporting Requirements

Reasons:

- Complexity of Business Environment.
- Necessity for Timely Information.
- Accounting as a Control and Monitoring Device.

Full Disclosure Principle

Differential Disclosure

"Big GAAP versus Little GAAP".

FASB takes the position that there should be one set of GAAP.

LO 1 Review the full disclosure principle and describe implementation problems.

Notes to the Financial Statements

Notes are the means of amplifying or explaining the items presented in the main body of the statements.

Accounting Policies

Companies should present a statement identifying the accounting policies adopted (Summary of Significant Accounting Policies).

Notes to the Financial Statements

Common Notes

- *Inventory*
- *Property, Plant, and Equipment*
- *Creditor Claims*
- *Equity Holders' Claims*
- *Contingencies and Commitments*
- *Deferred Taxes, Pensions, and Leases*
- *Changes in Accounting Principles*

LO 2 Explain the use of notes in financial statement preparation.

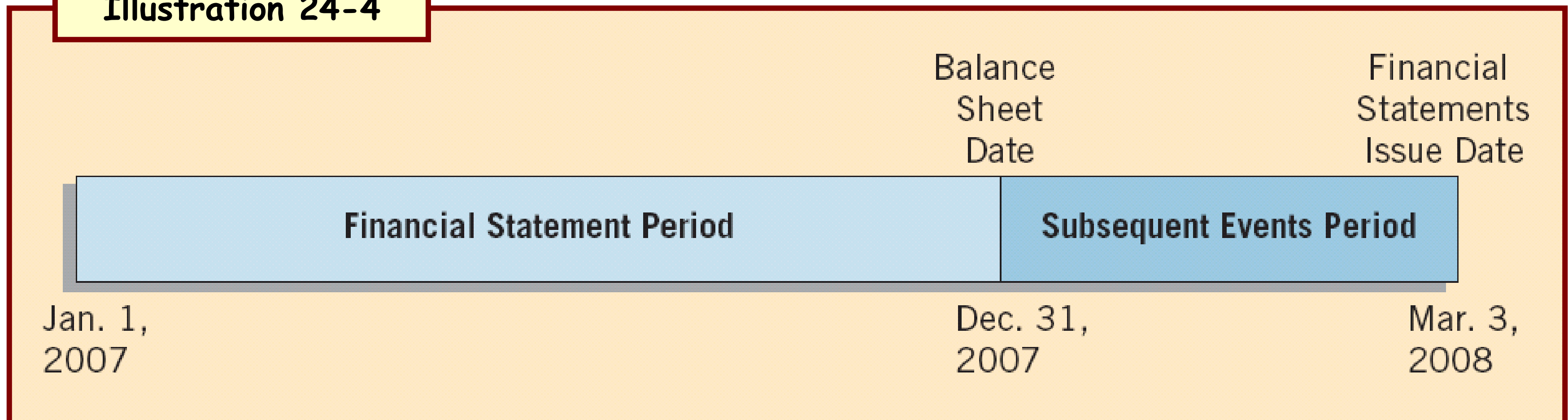
Disclosure Issues

Disclosure of Special Transactions or Events

- Related-party transactions
- Illegal acts

Disclosure Issues

Post-Balance-Sheet Events (Subsequent Events)



1 - Events that provide additional evidence about conditions that existed at the balance sheet date.

2 - Events that provide evidence about conditions that did not exist at the balance sheet date.

LO 2 Explain the use of notes in financial statement preparation.

Disclosure Issues

Reporting for Diversified Companies

Investors and investment analysts income statement, balance sheet, and cash flow information on the **individual segments** that compose the total income figure.

Disclosure Issues

Objective of Reporting Segmented Information

To provide information about the **different types of business activities** in which an enterprise engages and the **different economic environments** in which it operates.

A company can meet objective by providing financial statements segmented based on how the company's operations are managed (**Operating Segment**).

LO 3 Discuss the disclosure requirements for major business segments.

Disclosure Issues

Segmented Information Reported

1. General information about operating segments.
2. Segment profit and loss and related information.
3. Segment assets.
4. Reconciliations.
5. Information about products and services and geographic areas.
6. Major customers.

LO 3 Discuss the disclosure requirements for major business segments.

Disclosure Issues

Interim Reports

Cover periods of less than one year.

Two viewpoints exist:

1. The discrete approach
2. The integral approach

Companies should use the same accounting principles for interim reports that they use for annual reports.

LO 4 Describe the accounting problems associated with interim reporting.

Disclosure Issues

Unique Problems of Interim Reporting

(1) Advertising and similar costs

(2) Expenses subject to year-end adjustment

(3) Income taxes

(4) Extraordinary items

(5) Earnings per share

(6) Seasonality

LO 4 Describe the accounting problems associated with interim reporting.

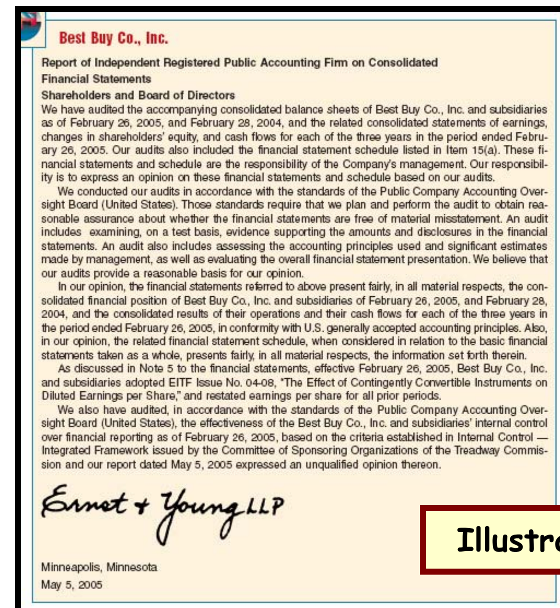
Auditor's and Management's Reports

Auditor's Report

Standard **unqualified opinion** – auditor expresses the opinion that the financial statements are presented fairly, in all material respects, in conformity with GAAP.

Other opinions:

- Qualified
- Adverse
- Disclaim



Best Buy Co., Inc.

Report of Independent Registered Public Accounting Firm on Consolidated Financial Statements

Shareholders and Board of Directors

We have audited the accompanying consolidated balance sheets of Best Buy Co., Inc. and subsidiaries as of February 26, 2005, and February 28, 2004, and the related consolidated statements of earnings, changes in shareholders' equity, and cash flows for each of the three years in the period ended February 26, 2005. Our audits also included the financial statement schedule listed in Item 15(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Best Buy Co., Inc. and subsidiaries of February 26, 2005, and February 28, 2004, and the consolidated results of their operations and their cash flows for each of the three years in the period ended February 26, 2005, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

As discussed in Note 5 to the financial statements, effective February 26, 2005, Best Buy Co., Inc. and subsidiaries adopted EITF Issue No. 04-08, "The Effect of Contingently Convertible Instruments on Diluted Earnings per Share," and restated earnings per share for all prior periods.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of the Best Buy Co., Inc. and subsidiaries' internal control over financial reporting as of February 26, 2005, based on the criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated May 5, 2005 expressed an unqualified opinion thereon.

Ernst + Young LLP

Minneapolis, Minnesota
May 5, 2005

Illustration 24-14

LO 5 Identify the major disclosures in the auditor's report.

Auditor's and Management's Reports

Management's Report

The SEC mandates inclusion of **management's discussion and analysis (MD&A)**.

Management highlights favorable or unfavorable trends related to liquidity, capital resources, and results of operations.

LO 5 Identify the major disclosures in the auditor's report.

Auditor's and Management's Reports

Management's Responsibilities for Financial Statements

The Sarbanes-Oxley Act requires the SEC to develop guidelines for *all* publicly traded companies to report on management's responsibilities for, and assessment of, the internal control system.

LO 6 Understand management's responsibilities for financials.

Current Reporting Issues

Reporting on Financial Forecasts and Projections

Financial forecast is a set of prospective financial statements that present, a company's expected financial position, results of operations, and cash flows.

Financial projections are prospective financial statements that present, given one or more *hypothetical assumptions*, an entity's expected financial position, results of operations, and cash flows. SEC Safe Harbor Rule

LO 7 Identify issues related to financial forecasts and projections.

Current Reporting Issues

Fraudulent Financial Reporting

Intentional or reckless conduct, whether through act or omission, that results in materially misleading financial statements.

The Sarbanes-Oxley Act has numerous provisions intended to help prevent fraudulent financial reporting.

LO 8 Describe the profession's response to fraudulent financial reporting.

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