

1076.92	107.88	71.62	67.46
3230.76	323.64	214.86	202.40
923.08	146.35	61.38	63.42
2769.24	439.11	184.14	190.28

10e Financial Statement  
ANALYSIS

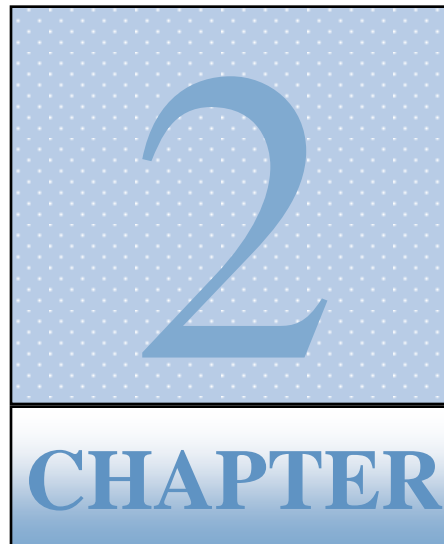
K. R. SUBRAMANYAM  
JOHN J. WILD

# Financial Statement Analysis

*K R Subramanyam*  
*John J Wild*


# Financial Reporting and Analysis

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A graphic for Chapter 2. It consists of a square divided into two horizontal sections. The top section has a light blue background with a fine white dot pattern and contains a large, stylized blue number '2'. The bottom section has a white background with a blue gradient at the bottom and contains the word 'CHAPTER' in blue, all-caps, serif font.

2  
CHAPTER

# Statutory Financial Reports



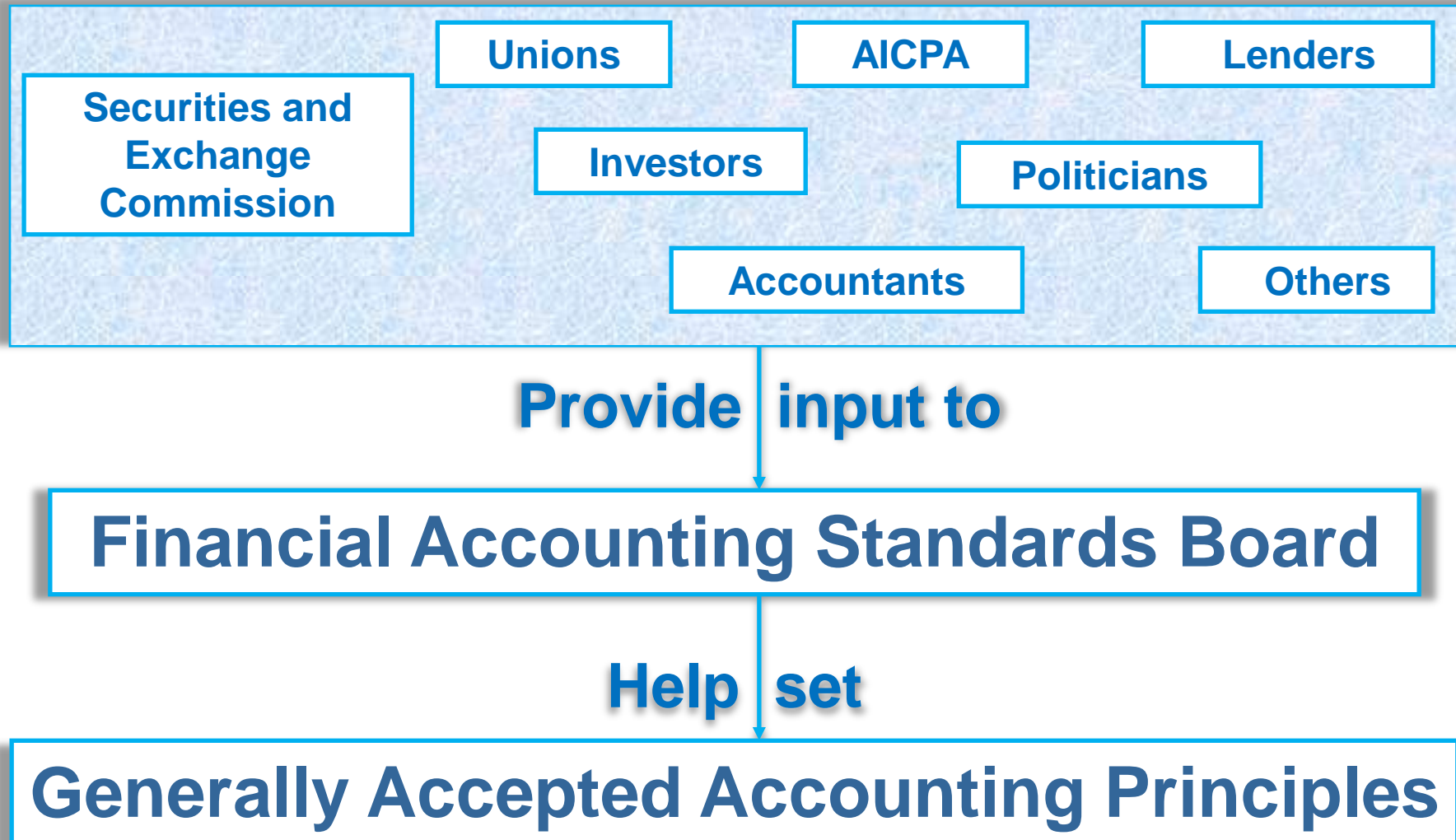
<b>Form 10-K (Annual Report)</b>
<b>10-Q (Quarterly Report)</b>
<b>20-F (Registration Statement/ Annual Report [Foreign])</b>
<b>8-K (Current Report)</b>
<b>14-A (Proxy Statement/Prospectus)</b>
<b>Other SEC Filings</b>

# GAAP

## Types of Accounting rules and guidelines

- Statements of Financial Accounting Standards
- APB Opinions.
- Accounting Research Bulletins (ARB).
- AICPA pronouncements. The AICPA issues guidelines for certain topics yet to be addressed by the FASB in its Statements of Position (SOP) or for those involving industry-specific matters in its Industry Audit and Accounting Guidelines.
- EITF Bulletins. EITF Bulletins are issued by the FASB's Emerging Issues Task Force.
- Industry practices.

# Environmental Factors



# Environmental Factors

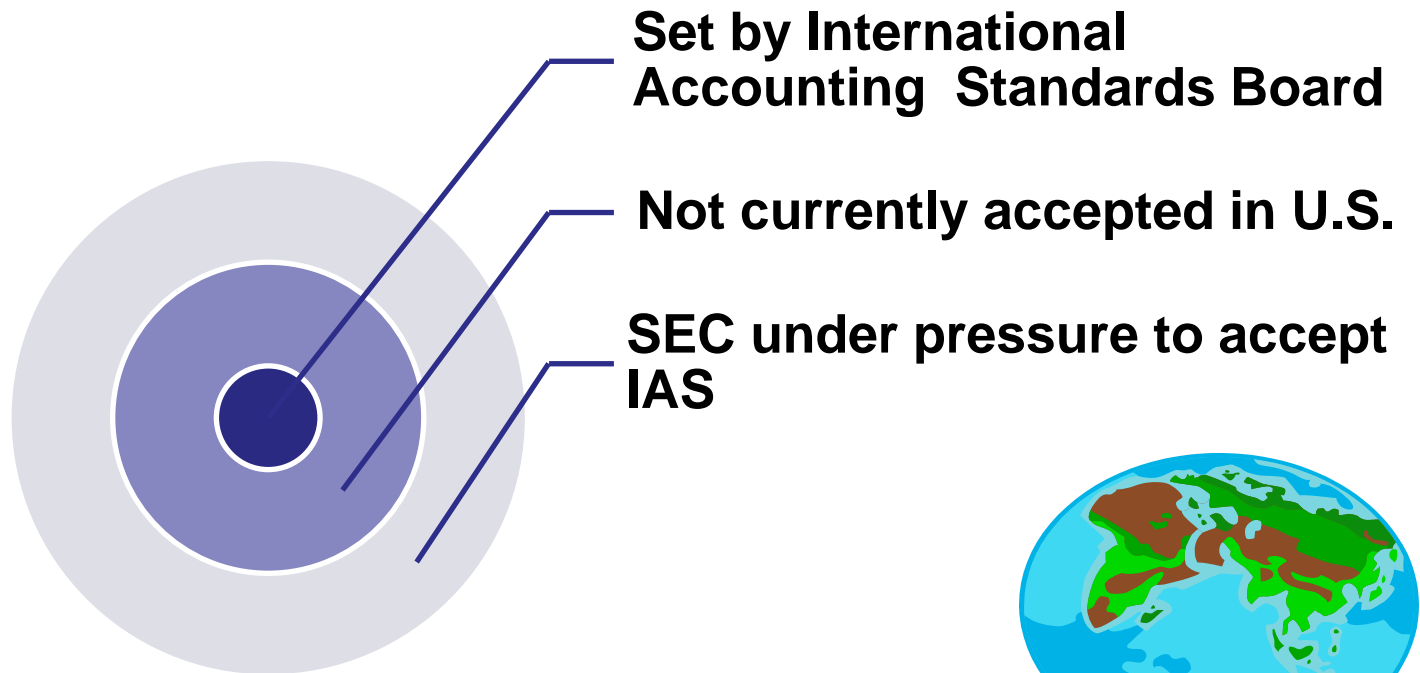


## Securities and Exchange Commission (SEC)

- Independent, quasi-judicial government agency
- Administer securities regulations & disclosures
- Can modify & set GAAP, if necessary
- Rarely directly challenges FASB
- Major player in global accounting

# Environmental Factors

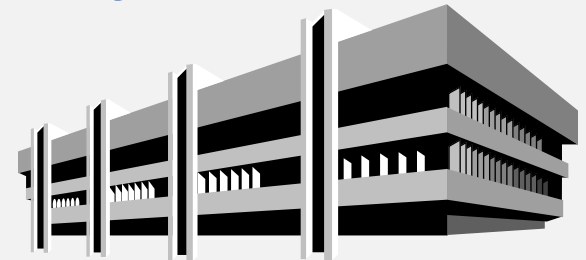
## International Financial Reporting Standards (IFRS)



# Environmental Factors

## Managers of Companies

- **Primary responsibility for fair & accurate reports**
- **Applies accounting to reflect business activities**
- **Managerial discretion is necessary in accounting**
- **Major lobbyist on GAAP**



# Environmental Factors

## Auditing

- SEC requires Audit Report
- Audit opinion can be:
  - clean (fairly presented)
  - qualified (except for)
  - disclaimer (no opinion)
- Check Auditor quality & independence



**Auditors**

# Environmental Factors

## Corporate Governance

- Board of directors oversight
- Audit committee of the board
  - oversee accounting process
  - oversee internal control
  - oversee internal/external audit
- Internal Auditor



# Environmental Factors

## Internal Users



Managers



Officers



Internal Auditors



Sales Managers



Budget Officers



Controller

## External Users



Lenders



Shareholders



Governments



Labor Unions



External Auditors



Customers

# Alternative information sources

## Economic, Industry & Company News

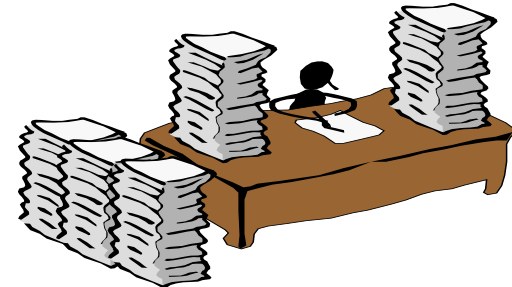
- Impacts current & future financial condition and performance

## Voluntary Disclosure

Motivation - Legal liability, Expectations Adjustment, Signaling, Managing expectations

## Information Intermediaries

- Industry devoted to collecting, processing, interpreting & disseminating company information
- Includes analysts, advisers, debt raters, buy- and sell-side analysts, and forecasters
- Major determinant of GAAP



# Desirable Qualities of Accounting Information

- **Relevance** - the capacity of information to affect a decision
- **Reliability** - For information to be reliable it must be verifiable, representationally faithful, and neutral.
  - *Verifiability* means the information is confirmable.
  - *faithfulness* means the information reflects reality, and
  - *neutrality* means it is truthful and unbiased.

# Financial Accounting

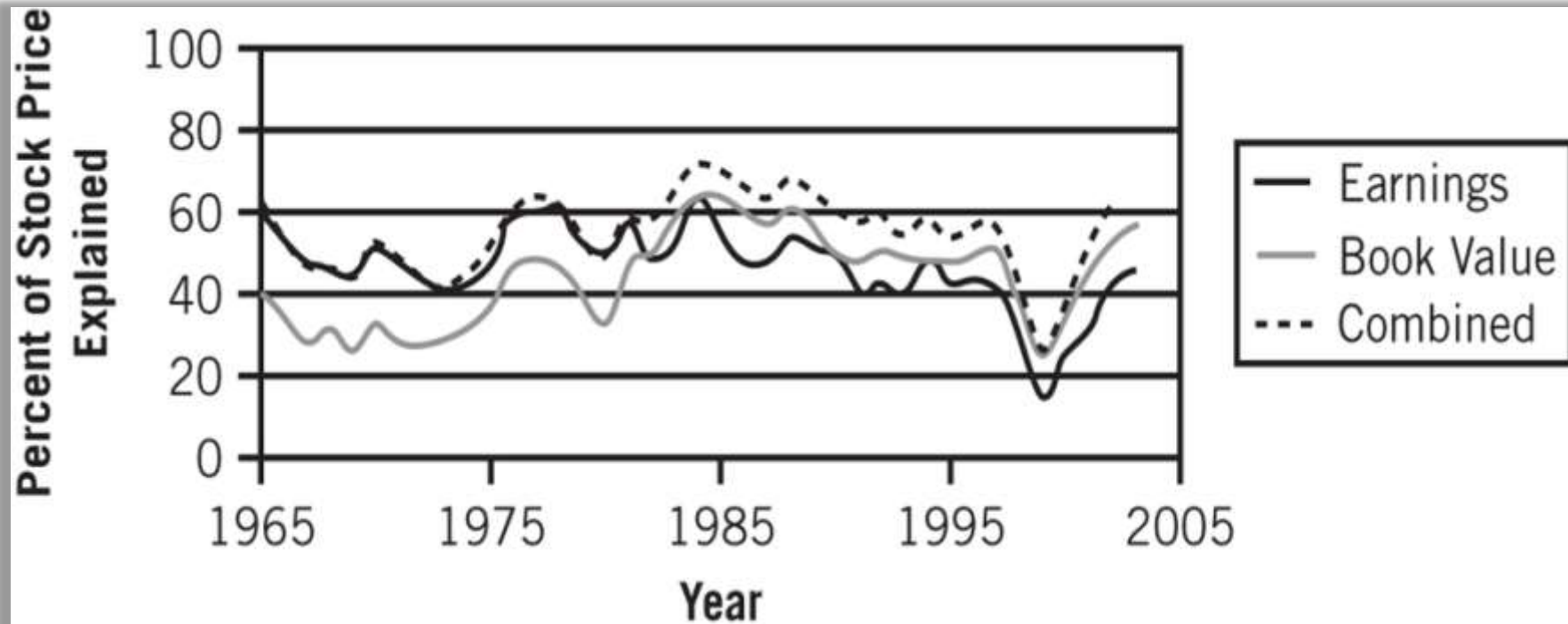
## Important Accounting Principles

- **Historical Cost** - fair & objective values from arm's-length bargaining
- **Accrual Accounting** - recognize revenues when earned, expenses when incurred
- **Materiality** - threshold when information impacts decision making
- **Conservatism** - reporting or disclosing the least optimistic information about uncertain events and transactions

# Financial Accounting

## Relevance of Accounting Information

### Relation between Accounting Numbers and Stock Prices



# Financial Accounting

## Limitations of Accounting Information

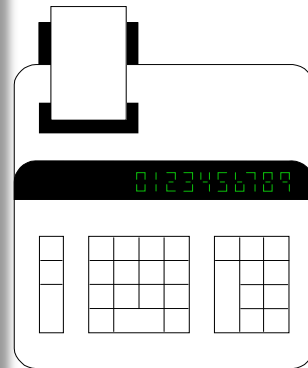
- **Timeliness** - periodic disclosure, not real-time basis
- **Frequency** - quarterly and annually
- **Forward Looking** - limited prospective information



# Accruals-The Cornerstone

## Illustration - Case Facts

- Establish company and invest \$700 equity
- Purchase plain T-shirts for \$5 each
- Fixed screen cost of \$100
- Variable print cost of \$0.75 per T-shirt
- Sold 25 T-shirts at \$10 each for cash
- Sold 25 T-shirts at \$10 each on credit



# Accruals- The Cornerstone

## Case Illustration – Cash Accounting

### Statement of Cash Flows

#### Receipts

T-Shirt sales	\$250
---------------	-------

#### Payments

T-Shirt purchases	\$500
Screen purchase	100
Printing charges	<u>75</u>
Total payments	<u>\$(675)</u>
Net cash outflow	<u>\$(425)</u>

### Balance Sheet (Cash basis)

#### Assets

Cash	<u>\$275</u>
------	--------------

#### Equity

Beginning Equity	\$700
Less net cash outflow	<u>(425)</u>
Total equity	<u>\$275</u>

# Accruals-The Cornerstone

## Case Illustration – Accrual Accounting

### Income Statement

#### Revenues

T-Shirt sales \$500.00

#### Expenses

T-Shirts costs \$250.00

Screen depreciation 50.00

Printing charges 37.50

Total expenses (337.50)

Net income \$162.50

### Balance Sheet (Accrual basis)

#### Assets

Cash \$275.00

T-Shirt inventory 337.50

Receivables 250.00

Total assets \$862.50

#### Equity

Beginning equity \$700.00

Add net income 162.50

Total equity \$862.50

# Accruals-The Cornerstone

Net  
Income

=

Operating  
Cash Flow

+

Accruals



=



+



# Accruals-The Cornerstone

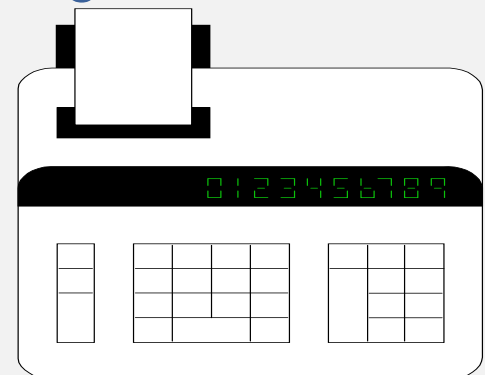
## Foundations of Accrual Accounting

Revenue Recognition – recognize revenues when

- (1) Earned
- (2) Realized or Realizable

Expense Matching – match with corresponding revenues

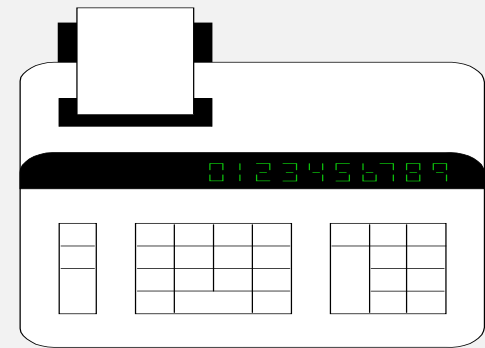
- Product costs
- Period costs



# Accruals-The Cornerstone

## Relation between Cash Flows and Accruals

$$\begin{aligned}
 & \text{Operating cash flow (OCF)} \\
 -/+ & \quad \text{Cash investment \& divestment in operating assets} \\
 \hline
 = & \quad \text{Free cash flow (FCF)} \\
 +/- & \quad \text{Financing cash flows (including investment \&} \\
 & \quad \text{divestment in financing assets)} \\
 \hline
 = & \quad \text{Net cash flow (NCF)}
 \end{aligned}$$



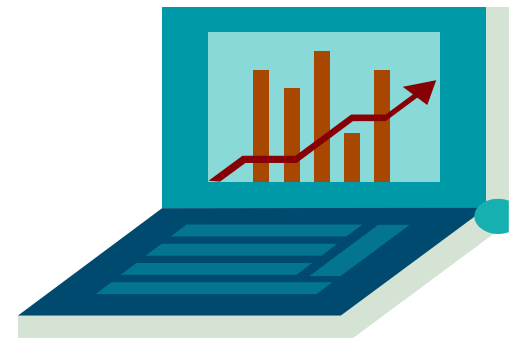
# Accruals-The Cornerstone

## Short-Term and Long-Term Accruals

**Short-Term Accruals:** Yield current assets and current liabilities (also called *working capital accruals*)

**Long-Term Accruals:** Yield non-current assets and non-current liabilities (arise mainly from *capitalization*)

**Note:** Analysis research suggests short-term accruals are more useful in company valuation



# Accruals-The Cornerstone

## Accruals and Cash Flows - Myths

- **Myth:** Since company value depends on future cash flows, only current cash flows are relevant for valuation.
- **Myth:** All cash flows are value relevant.
- **Myth:** All accrual accounting adjustments are value irrelevant.
- **Myth:** Cash flows cannot be manipulated.
- **Myth:** All income is manipulated.
- **Myth:** It is impossible to consistently manage income upward in the long run.

# Accruals-The Cornerstone

## Accruals and Cash Flows - Truths

- **Truth:** Accrual accounting (*income*) is more relevant than cash flow.
- **Truth:** Cash flows are more reliable than accruals.
- **Truth:** Accrual accounting numbers are subject to accounting distortions.
- **Truth:** Company value can be determined by using accrual accounting numbers.

# Economic concepts of income



Economic income



Permanent income



Operating income

## Economic income

- Measures changes in Shareholders wealth.
- Cash flows + Present value of expected future cash flows.
- Useful when the objective of analysis is determining the exact return to the shareholder for the period.
- Less useful for forecasting future earnings potential.

# Accounting concept of income

- Based on the concept of accrual accounting
- Main purpose is income measurement
- Two main processes –
  - Revenue recognition
  - Expense matching



# Accounting Vs Economic income

## Reasons for difference

- Alternative income concepts
- Historical cost
- Transaction basis
- Conservatism
- Earnings management



# Fair value accounting

Asset and liability values are determined on the basis of their fair values (typically market prices) on the measurement date (i.e., approximately the date of the financial statements).



# Historical cost Vs Fair value

**Exhibit 2.8** *Historical Cost versus Fair Value Example*



Balance Sheet	Year 1 (Opening)		Year 1 (Closing)		Year 2 (Closing)	
	Historical		Historical		Historical	
	Cost	Fair Value	Cost	Fair Value	Cost	Fair Value
<b>Assets</b>						
Cash			\$ 9,000	\$ 9,000	\$ 18,500	\$ 18,500
Condominium	\$100,000	\$100,000	99,500	125,000	99,000	110,000
	<u>\$100,000</u>	<u>\$100,000</u>	<u>\$108,500</u>	<u>\$134,000</u>	<u>\$117,500</u>	<u>\$128,500</u>
<b>Liabilities and Shareholder's Equity</b>						
Long-term debt	\$ 50,000	\$ 50,000	\$ 50,000	\$ 48,000	\$ 50,000	\$ 50,500
Shareholders' equity	50,000	50,000	58,500	86,000	67,500	78,000
	<u>\$100,000</u>	<u>\$100,000</u>	<u>\$108,500</u>	<u>\$134,000</u>	<u>\$117,500</u>	<u>\$128,500</u>
<b>Income Statement</b>						
			Year 1		Year 2	
			Historical		Historical	
			Cost	Fair Value	Cost	Fair Value
Rental income			\$12,000	\$12,000	\$12,500	\$12,500
Depreciation			(500)		(500)	
Interest expense			(3,000)	(3,000)	(3,000)	(3,000)
Unrealized gain/loss on condo				25,000		(15,000)
Unrealized gain/loss on debt				2,000		(2,500)
Income (loss)			<u>\$ 8,500</u>	<u>\$36,000</u>	<u>\$ 9,000</u>	<u>(\$ 8,000)</u>

# Advantages & Disadvantages

## Advantages

- Reflects current information.
- Consistent measurement criteria.
- Comparability
- No conservative bias
- More useful for equity analysis

## Disadvantages

- Lower objectivity
- Susceptibility to manipulation. Use of Level 3 inputs.
- Lack of conservatism.
- Excessive income volatility.



# Implications for Analysis

- Focus on the balance sheet.
- Restating income.
- Analyzing use of inputs.
- Analyzing financial liabilities.



# Accounting Analysis

## Demand for Accounting Analysis

- Adjust for *accounting distortions* so financial reports better reflect economic reality
- Adjust general-purpose financial statements to meet specific *analysis objectives* of a particular user

# Accounting Analysis

## Sources of Accounting Distortions

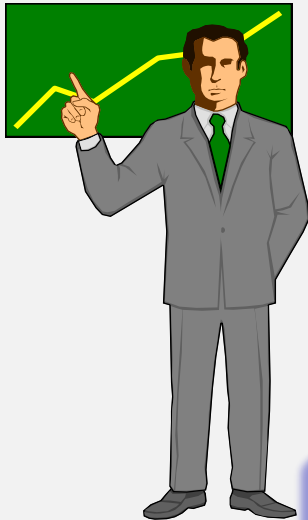
- **Accounting Standards** – attributed to
  - 1) political process of standard-setting,
  - 2) accounting principles and assumptions, and
  - 3) conservatism
- **Estimation Errors** – attributed to estimation errors inherent in accrual accounting
- **Reliability vs Relevance** – attributed to over-emphasis on reliability at the loss of relevance
- **Earnings Management** – attributed to window-dressing of financial statements by managers to achieve personal benefits



# Accounting Analysis

## Analysis Objectives

- **Comparatives Analysis** – demand for financial comparisons across companies and/or across time
- **Income Measurement** - demand for (1) equity wealth changes and (2) measure of earning power. These correspond to two alternative income concepts
  - (1) Economic Income (or empirically, *economic profit*)
  - (2) Permanent Income (or empirically, *sustainable profit*)



**Chapter 6 discusses these measures in detail**

# Accounting Analysis

## Earnings Management – Frequent Source of Distortion

### Earning Management strategies:

- **Increasing Income** – managers adjust accruals to increase reported income
- **Big Bath** – managers record huge write-offs in one period to relieve other periods of expenses
- **Income Smoothing** – managers decrease or increase reported income to reduce its volatility

# Accounting Analysis

## Earnings Management – Motivations

- **Contracting Incentives** - managers adjust numbers used in contracts that affect their wealth (e.g., compensation contracts)
- **Stock Prices** – managers adjust numbers to influence stock prices for personal benefits (e.g., mergers, option or stock offering)
- **Other Reasons** - managers adjust numbers to impact
  - 1) labor demands,
  - 2) management changes, and
  - 3) societal views

# Accounting Analysis

## Earnings Management – Mechanics

- **Incoming Shifting:**

Accelerate or delay recognition of revenues or expenses to shift income from one period to another

- **Classificatory Earnings Management:**

Selectively classify revenues Earnings and expenses in certain parts Management of the income statement to affect analysis inferences regarding the recurring nature of these items

# Accounting Analysis

## Process of Accounting Analysis

Accounting analysis involves several inter-related processes and tasks that can be grouped into two broad areas:

- **Evaluating Earning Quality: Steps**

- 1) Identify and assess key accounting policies
- 2) Evaluate extent of accounting flexibility
- 3) Determine the reporting strategy
- 4) Identify and assess **red flags**

- **Adjusting Financial Statements:**

Identify, measure, and make necessary adjustments to financial statements to better serve one's analysis objectives;

**Chapters 3-6 focus on adjusting (recasting) the statements**

# Auditing And Financial Statement Analysis

Auditing identifies errors and irregularities, which if undetected would materially affect these statements' fairness of presentation or their conformity with GAAP.

## Types of Audit qualification

- "Except for" Qualification
- Adverse opinion
- Disclaimer of opinion