

Introduction to Finance

Prepared by Dr. Mohamed Hamouda



Reading & Understanding Basic Financial Statements

Lecture 2

Prepared by
Dr. Mohamed Hamouda

Agenda

- Purpose of financial statements
- The Balance Sheet
- The Income Statement
- Statement of Retained Earnings
- Statement of Cash Flows
- Notes to the financial statements
- Fundamental concepts and assumptions
- Accrual vs. cash-basis accounting
- Standards for comparison
- Tools of analysis

Primary Financial Statements

Basic financial statements:

- ❶ Balance Sheet
- ❷ Income Statement
- ❸ Statement of Retained Earnings
- ❹ Statement of Cash Flows

Primary Financial Statements

- Primary financial statements answer basic questions including:
 - What is the company's current financial status?
 - What was the company's operating results for the period?
 - How did the company obtain and use cash during the period?

The Balance Sheet

- Summary of the financial position of a company at a particular date
- Assets: cash, accounts receivable, inventory, land, buildings, equipment and intangible items
- Liabilities: accounts payable, notes payable and mortgages payable
- Owners' Equity: net assets after all obligations have been satisfied

The Balance Sheet

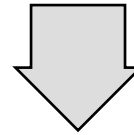
- What are the resources of the company?
- What are the company's existing obligations?
- What are the company's net assets?

Accounting Equation

Assets = Liabilities + Owners' Equity

Resources

Sources of Funding



**Resources
to use to
generate
revenues**

=

**Creditors'
claims
against
resources**

+

**Owners'
claims
against
resources**

Sample Balance Sheet

Assets

Cash	\$ 40
Accounts receivable	100
Land	<u>200</u>

Total assets **\$340**

Liabilities

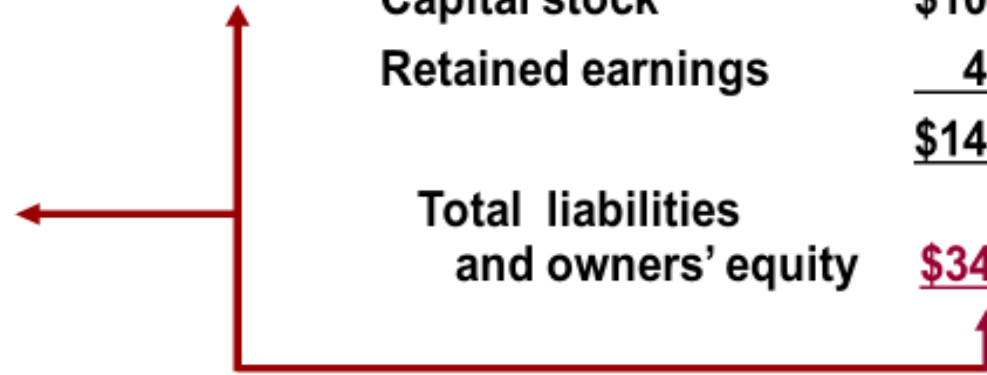
Accounts payable	\$ 50
Notes payable	<u>150</u>
	<u>\$200</u>

Owners' Equity

Capital stock	\$100
Retained earnings	<u>40</u>
	<u>\$140</u>

Total liabilities
and owners' equity **\$340**

**Must
Equal**



Classified and Comparative Balance Sheets

- They distinguish between:
 - Current and long-term assets
 - Current and long-term liabilities
- Listed in decreasing order of liquidity
- Comparative so financial statement users can identify significant changes over time. They have more than one year on the Balance Sheet.

Balance Sheet Limitations

- ❶ Assets recorded at historical value
- ❷ Only recognizes assets that can be expressed in monetary terms
- ❸ Owners' equity is usually less than the company's market value

The Income Statement

- Shows the results of a company's operations over a period of time.
- What goods were sold or services performed that provided revenue for the company?
- What costs were incurred in normal operations to generate these revenues?
- What are the earnings or company profit?

The Income Statement

Revenues

- Assets (cash or AR) created through business operations

Expenses

- Assets (cash or AP) consumed through business operations

Net Income or (Net Loss)

- Revenues - Expenses

The Example Company
Income Statement
For the Years Ended December 31, 2010 and 2011

	2011	2010
Revenues:		
Sales	\$100	\$ 85
Other revenue	<u>30</u>	<u>15</u>
Total revenues	\$130	\$100
Expenses:		
Cost of goods sold	\$ 62	\$ 58
Operating & admin.	16	12
Income tax	<u>20</u>	<u>18</u>
Total expenses	\$ 98	\$ 88
Net Income	\$ 32	\$ 12

Statement of Retained Earnings

Beginning retained earnings

+ Net income

– Dividends paid

= Ending retained earnings

An additional financial statement that identifies changes in retained earnings from one accounting period to the next.

Net income results in:

Increase in net assets
Increase in retained earnings
Increase in owners' equity

Dividends result in:

Decrease in net assets
Decrease in retained earnings
Decrease in owners' equity

Statement of Cash Flows

- Reports the amount of cash collected and paid out by a company in operating, investing and financing activities for a period of time.
- How did the company receive cash?
- How did the company use its cash?
- Complementary to the income statement.
- Indicates ability of a company to generate income in the future.

Statement of Cash Flows

Cash inflows

- Sell goods or services
- Sell other assets or by borrowing
- Receive cash from investments by owners

Cash outflows

- Pay operating expenses
- Expand operations, repay loans
- Pay owners a return on investment

Match Classification of Cash Flows

- **Operating activities** – Transactions and events that enter into the determination of net income.
- **Investing activities** – Transactions and events that involve the purchase and sale of securities, property, plant, equipment, and other assets not generally held for resale, and the making and collecting of loans.
- **Financing activities** – Transactions and events whereby resources are obtained from, or repaid to, owners and creditors.

Operating Activities

Cash Inflow

- Sale of goods or services
- Sale of investments in trading securities
- Interest revenue
- Dividend revenue

Cash Outflow

- Inventory payments
- Interest payments
- Wages
- Utilities, rent
- Taxes

Investing Activities

Cash Inflow

- Sale of plant assets
- Sale of securities, other than trading securities
- Collection of principal on loans

Cash Outflow

- Purchase of plant assets
- Purchase of securities, other than trading securities
- Making of loans to other entities

Financing Activities

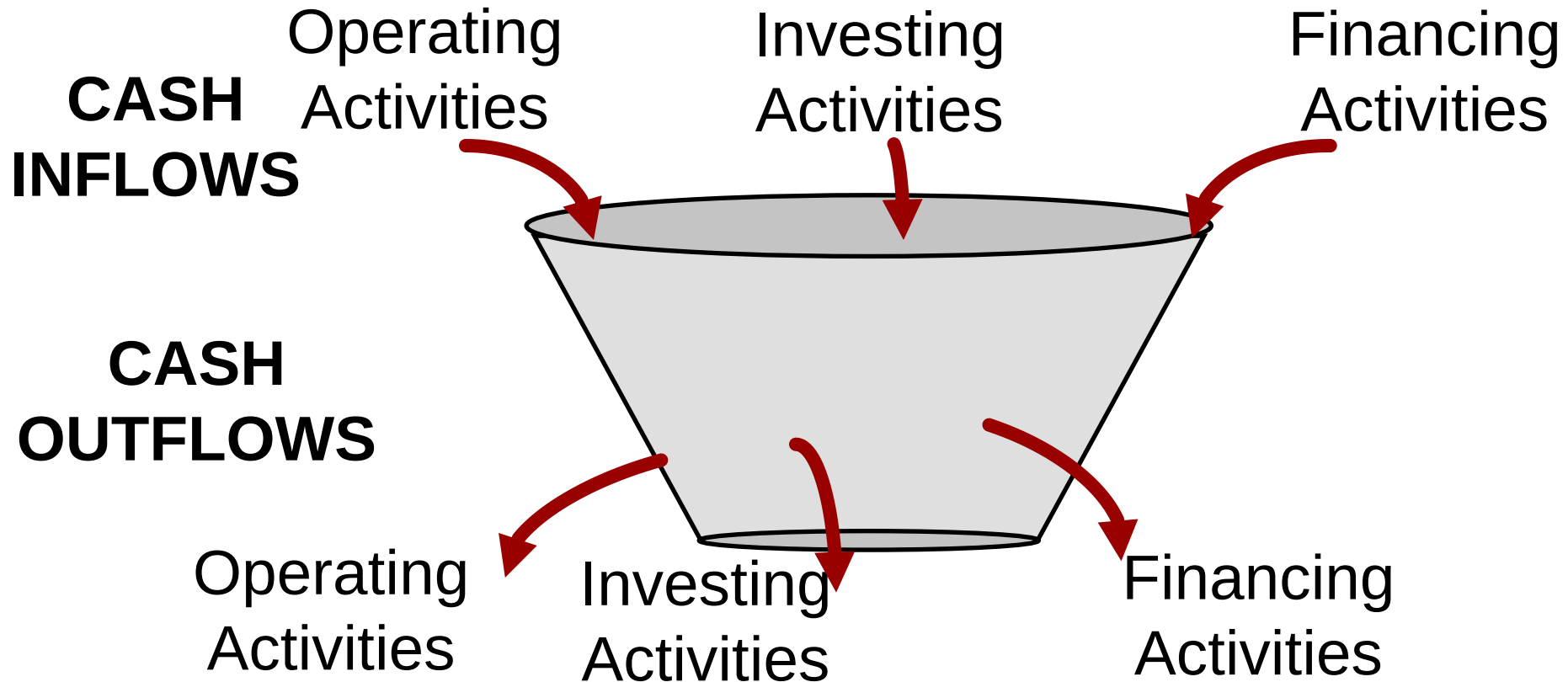
Cash Inflow

- Issuance of own stock
- Borrowing

Cash Outflow

- Dividend payments
- Repaying principal on borrowing
- Treasury stock purchase

Statement of Cash Flows



Statement of Cash Flows Analysis

	Operating	Investing	Financing	General Explanation
1.	+	+	+	Building up pile of cash, Possibly looking for Acquisition
2.	+	—	—	Operating cash flow being Used to buy fixed assets And pay down debt
3.	+	+	—	Operating cash flow and sale of fixed assets being used to pay down debt.
4.	+	—	+	Operating cash flow and borrowed money being used to expand

Statement of Cash Flows Analysis

	Operating	Investing	Financing	General Explanation
5.	—	+	+	Operating cash flow problems covered by sale of fixed assets, borrowing and owner contributions.
6.	—	—	+	Rapid growth, short falls in operating cash flow; purchase of fixed assets.
7.	—	+	—	Sale of fixed assets is financing operating cash flow shortages.
8.	—	—	—	Company is using reserves to finance cash flow short falls.

**The Example Company
Statement of Cash Flows
December 31, 2011**

Cash Flows From Operating Activities:		
Receipts	48	
Payments	<u>(43)</u>	5
Cash Flows From Investing Activities:		
Receipts	0	
Payments	<u>(4)</u>	(4)
Cash Flows Used By Financing Activities:		
Receipts	10	
Payments	<u>(6)</u>	<u>4</u>
Net Cash Flow		5

Notes to the Financial Statements

- Notes are used to convey information required by GAAP or to provide further explanation.

Notes to the Financial Statements

Four general types of notes:

- ❶ Summary of significant accounting policies: assumptions and estimates.
- ❷ Additional information about the summary totals.
- ❸ Disclosure of important information that is not recognized in the financial statements.
- ❹ Supplementary information required by the FASB or the SEC.

What Are The Fundamental Concepts and Assumptions?

- Separate Entity Concept
- Arm's-Length Transactions
- Cost Principle
- Monetary Measurement Concept
- Going Concern Assumption

Separate Entity Concept

Entity — The organizational unit for which accounting records are maintained.

Separate entity concept — The activities of an entity are to be separate from those of its individual owners.

- Proprietorship
- Partnership
- Corporation

The Cost Principle

- All transactions are recorded at historical cost.
- Historical cost is assumed to represent the fair market value of the item at the date of the transaction because it reflects the actual use of resources by independent parties.

The Monetary Measurement Concept

- Accountants measure only those economic activities that can be measured in monetary terms.
- Listed values may not be the same as actual market values:
 - Inflation
 - Measurement issues

The Going Concern Assumption

- An entity will have a continuing existence for the foreseeable future.

Why Use Accrual Accounting?

- GAAP – Generally Accepted Accounting Principles
- Business requires periodic, timely reporting
- Accrual-basis accounting better measures a firm's performance than does cash flow data.

The Time Period Concept

The life of a business is divided into distinct and relatively short time periods so the accounting information can be timely, generally 12 months or less.

Define Accrual Accounting

- A system of accounting in which revenues and expenses are recorded as they are earned and incurred, not necessarily when cash is received or paid.
- Provides a more accurate picture of a company's profitability.
- Statement users can make more informed judgments concerning the company's earnings potential.

Revenue Recognition

Revenues are recorded when two main criteria are met:

1 →

The earning process is substantially complete

2 →

Cash has either been collected or collection is reasonably assured.

The Matching Principle

costs and expenses

- All costs and expenses incurred in generating revenues must be recognized in the same reporting period as the related revenues.
- This process of matching expenses with recognized revenues determines the amount of net income reported on the income statement.

related revenues

Cash-Basis Accounting

- Revenues and expenses are recognized only when cash is received or payments are made.
- Mainly used by small businesses.
- Not an accurate picture of true profitability.

Accrual vs. Cash-Basis Accounting

During 2010, Crown Consulting billed its client for \$48,000. On December 31, 2010, it had received \$41,000, with the remaining \$7,000 to be received in 2011. Total expenses during 2010 were \$31,000 with \$3,000 of these costs not yet paid at December 31. Determine net income under both methods.

Cash-Basis Accounting

Cash receipts	\$41,000
Cash disbursement	<u>28,000</u>
Income	\$13,000

Accrual-Basis Accounting

Revenues earned	\$48,000
Expenses incurred	<u>\$31,000</u>
Income	\$17,000

Purpose of Analysis

Financial statement analysis helps users make better decisions.

Internal Users

- Managers
- Officers
- Internal Auditors

External Users

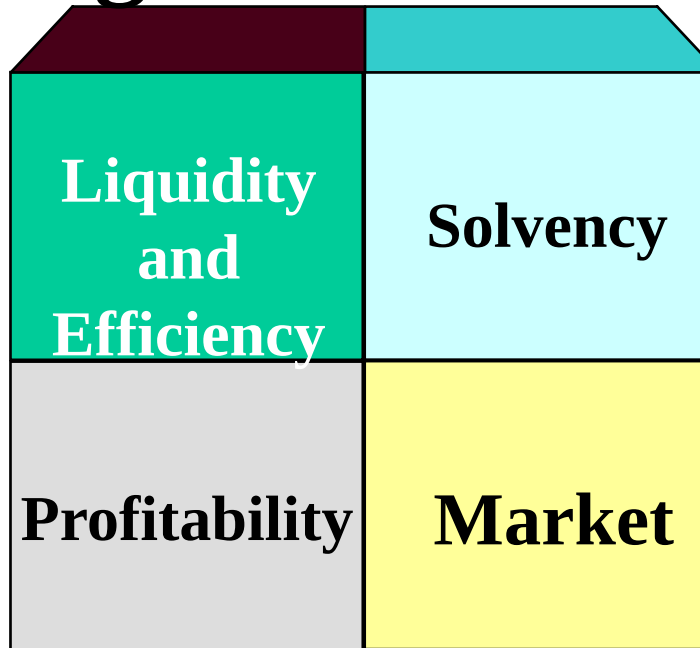
- Shareholders
- Lenders
- Customers

Building Blocks of Analysis

Ability to meet
short-term
obligations and to
efficiently generate
revenues



Ability to provide
financial rewards
sufficient to attract
and retain
financing



Ability to
generate future
revenues and
meet long-term
obligations



Ability to
generate
positive market
expectations



Standards for Comparison

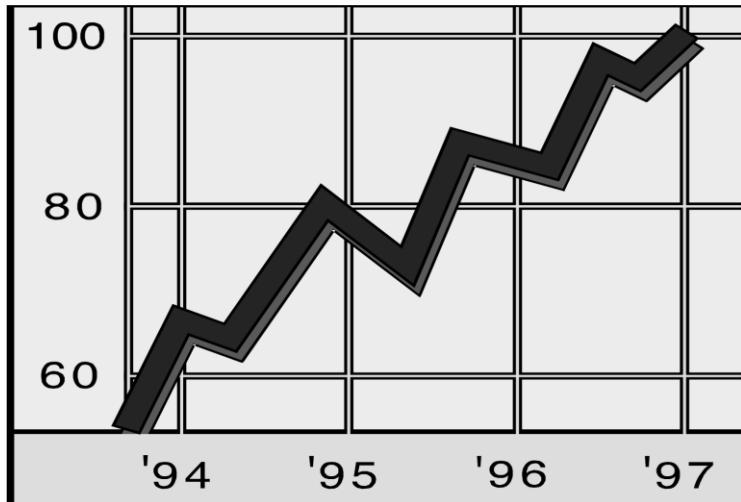
- ① Intra-company
- ② Competitor
- ③ Industry
- ④ Guidelines



Tools of Analysis

Horizontal Analysis

- Comparing a company's financial condition and performance across time.



Tools of Analysis

Vertical Analysis

- Comparing a company's financial condition and performance to a base amount.



Debt Ratio and its Purpose

- Measure of leverage
- Varies from industry to industry, but should be around 50%

$$= \frac{\text{Total liabilities}}{\text{Total assets}}$$

Current Ratio and its Purpose

- Measure of liquidity
- Also called Working Capital Ratio
- Some successful companies have current ratios less than 1.0

$$= \frac{\text{Total current assets}}{\text{Total current liabilities}}$$

Asset Turnover and its Purpose

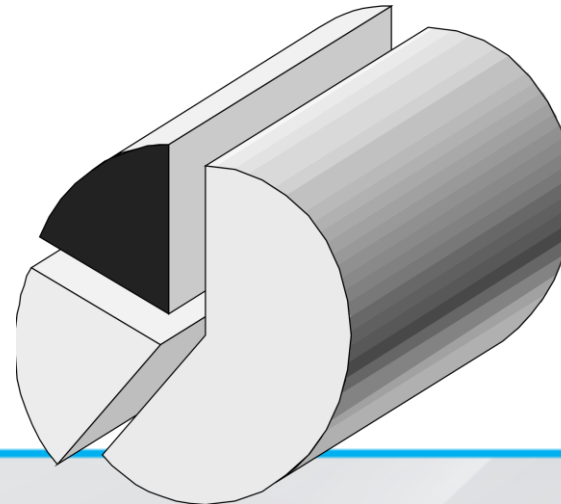
- Measure of company efficiency
- The higher the asset turnover ratio, the more efficient the company is using its assets to generate sales.

$$= \frac{\text{Sales}}{\text{Total assets}}$$

Return on Sales and its Purpose

- Measure of the amount of profit earned per dollar of sales.
- Evaluated within the appropriate industry.

$$= \frac{\text{Net income}}{\text{Sales}}$$



Return on Equity and its Purpose

- Overall measure of performance—profit earned per dollar of investment.
- Typically between 15% and 25%.

$$= \frac{\text{Net income}}{\text{Owners' equity}}$$

Thank You!