

# FN 201 Business Finance

## Lecture Note I

### Introduction to corporate finance and financial statements

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# Introduction to course

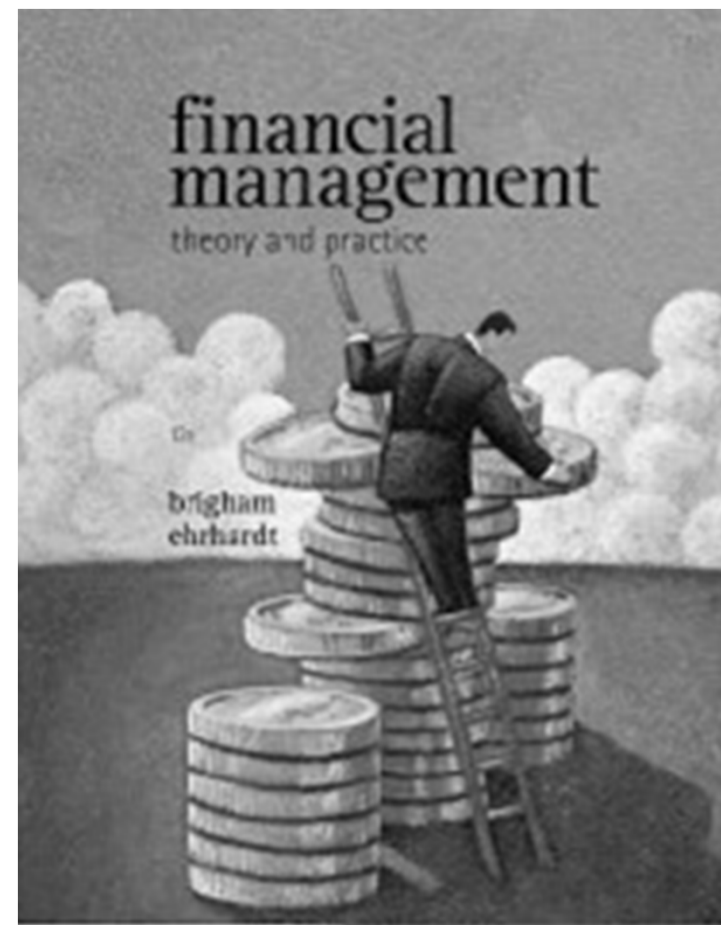
# Introduction to course

## COURSE REQUIREMENTS AND MATERIALS

The following books and lecture notes will be used as a class material:

1.    **\*BMA:** Brealey, Myers, and Allen, Principles of Corporate Finance, 10<sup>th</sup> Edition
2.    **BE:** Brigham and Ehrhardt, Financial Management, 12<sup>th</sup> Edition
3.    Gitman, L.J., Zutter, C.J., Principles of Managerial Finance, 13th Edition
4.    Class handouts and other materials

Note: \* refer to main textbook to be used for this course.



# Lecture Note 1 Outline

## Part 1: Basic concepts of corporate

Financial decision and opportunity cost concept

- Legal Forms of Business Organization
- Goals of firm and agency problem
- Role of Financial Manager
- Investment

## Part 2: Basic concepts of financial statements

- Accounting cycle
- Financial statements and its components

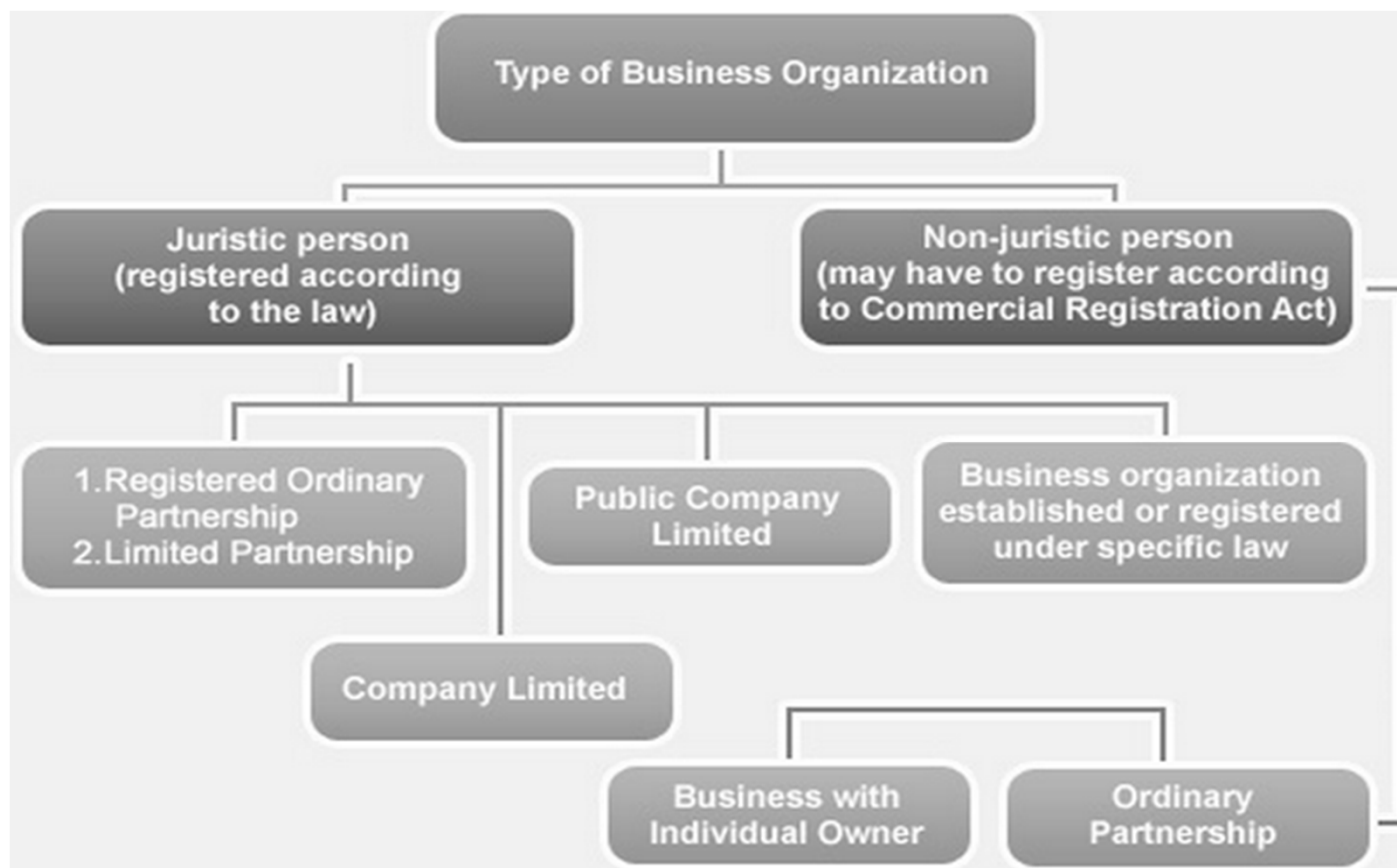
Part 1:

Basic concepts of corporate

# Overview of Financial Management

- Contributions of financial management
  - Firm's operating performance and growth
  - Consumers
  - Staffs and creditors
  - Community and society
- Financial management in other sector
  - Individual person – personal finance
  - Government sector – public finance
  - Private sector – corporate finance
  - International – international finance
  - Financial institution

# Legal Forms of Business Organization



Source: Department of Business Development, Ministry of Commerce



# Legal Forms of Business Organization

Sole Proprietorships

Partnerships

Corporations

# Legal Forms of Business Organization

**TABLE 1.1**

**Strengths and Weaknesses of the Common Legal Forms of Business Organization**

	Sole proprietorship	Partnership	Corporation
Strengths	<ul style="list-style-type: none"> <li>• Owner receives all profits (and sustains all losses)</li> <li>• Low organizational costs</li> <li>• Income included and taxed on proprietor's personal tax return</li> <li>• Independence</li> <li>• Secrecy</li> <li>• Ease of dissolution</li> </ul>	<ul style="list-style-type: none"> <li>• Can raise more funds than sole proprietorships</li> <li>• Borrowing power enhanced by more owners</li> <li>• More available brain power and managerial skill</li> <li>• Income included and taxed on partner's tax return</li> </ul>	<ul style="list-style-type: none"> <li>• Owners have <i>limited liability</i>, which guarantees that they cannot lose more than they invested</li> <li>• Can achieve large size via sale of stock</li> <li>• Ownership (stock) is readily transferable</li> <li>• Long life of firm</li> <li>• Can hire professional managers</li> <li>• Has better access to financing</li> <li>• Receives certain tax advantages</li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>• Owner has <i>unlimited liability</i>—total wealth can be taken to satisfy debts</li> <li>• Limited fund-raising power tends to inhibit growth</li> <li>• Proprietor must be jack-of-all-trades</li> <li>• Difficult to give employees long-run career opportunities</li> <li>• Lacks continuity when proprietor dies</li> </ul>	<ul style="list-style-type: none"> <li>• Owners have <i>unlimited liability</i> and may have to cover debts of other partners</li> <li>• Partnership is dissolved when a partner dies</li> <li>• Difficult to liquidate or transfer partnership</li> </ul>	<ul style="list-style-type: none"> <li>• Taxes generally higher, because corporate income is taxed, and dividends paid to owners are also taxed</li> <li>• More expensive to organize than other business forms</li> <li>• Subject to greater government regulation</li> <li>• Lacks secrecy, because stockholders must receive financial reports</li> </ul>

Source: Gitman and Zutter (2011)

# Goals of Firm

1. Shareholder wealth maximization
  - maximizing the price of firm's common stocks
2. Profit maximization
3. Managerial reward maximization
4. Behavioral goals
5. Social responsibility
  - consumers
  - community
  - firm's staff
  - creditor
  - government and social

# Goals of Firm

## Shareholder wealth vs. Profit maximization

Goal	Objective	Advantage	Disadvantage
Profit maximization	Large amount of profits	<ol style="list-style-type: none"><li>1. Easy to calculate profits</li><li>2. Easy to determine the link between financial decisions and profits</li></ol>	<ol style="list-style-type: none"><li>1. Emphasizes the short term</li><li>2. Ignores risk or uncertainty</li><li>3. Ignores the timing of returns</li><li>4. Requires immediate resources</li></ol>
Shareholder wealth maximization	Highest market value of common stock	<ol style="list-style-type: none"><li>1. Emphasizes the long term</li><li>2. Recognizes risk or uncertainty</li><li>3. Recognizes the timing of returns</li><li>4. Considers stockholders' return</li></ol>	<ol style="list-style-type: none"><li>1. Offers no clear relationship between financial decisions and stock price</li><li>2. Can lead to management anxiety and frustration</li><li>3. Can promote aggressive and creative accounting practices</li></ol>

Source: Shim and Siegel (2007)

Do manager really maximize  
shareholder's wealth?

# Agency Problem

Shareholders vs. Managers

*Possible solutions*

Salesman vs. Company

# Managerial measures of shareholder's wealth

1. Market value of equity or common stock (MV)
2. Market value added (MVA)
3. Economic value added (EVA)

Note: Capital with costs! Cost of all financing includes (+) Note payable, long-term debt, and equity but not marketable security.

# Managerial measures of shareholder's wealth

Note for Economic Value Added (EVA)

$$\begin{aligned}\text{EVA} &= \text{EBIT} (1 - \text{Tax Rate}) - \text{Cost of all financing} \\ &= \text{Net Income} + \text{Interest} (1 - \text{Tax Rate}) - (\text{Cost of Capital} \times \text{Capital})\end{aligned}$$



What are the roles of financial manager?

# Role of Financial Manager

## Investment Decision

### **Current Assets**

- Cash
- Short-term investments
- Account receivable
- Inventory

### **Fixed Assets**

- Plant and office equipment
- Machine
- Land

## Financing Decision

### **Current Liabilities**

- Account payable
- Accrued expense
- Short-term debt

### **Long-term debt**

- Long-term loan
- Long-term bond

### **Equity**

- Capital stock
- Retained earning

Balance Sheet

# Role of Financial Manager

## Liquidity Management

### Current Assets

- Cash
- Short-term investments
- Account receivable
- Inventory

### Fixed Assets

- Plant and office equipment
- Machine
- Land

### Current Liabilities

- Account payable
- Accrued expense
- Short-term debt

### Long-term debt

- Long-term loan
- Long-term bond

### Equity

- Capital stock
- Retained earning

# Role of Financial Manager

## Current Assets

- Cash
- Short-term investments
- Account receivable
- Inventory

## Current Liabilities

- Account payable
- Accrued expense
- Short-term debt

## Growth Management

## Fixed Assets

- Plant and office equipment
- Machine
- Land

## Long-term debt

- Long-term loan
- Long-term bond

## Equity

- Capital stock
- Retained earning

# Investment: Debt Advantage

## Rationale

1. Credit records
2. Higher return on investment
3. Tax reduction

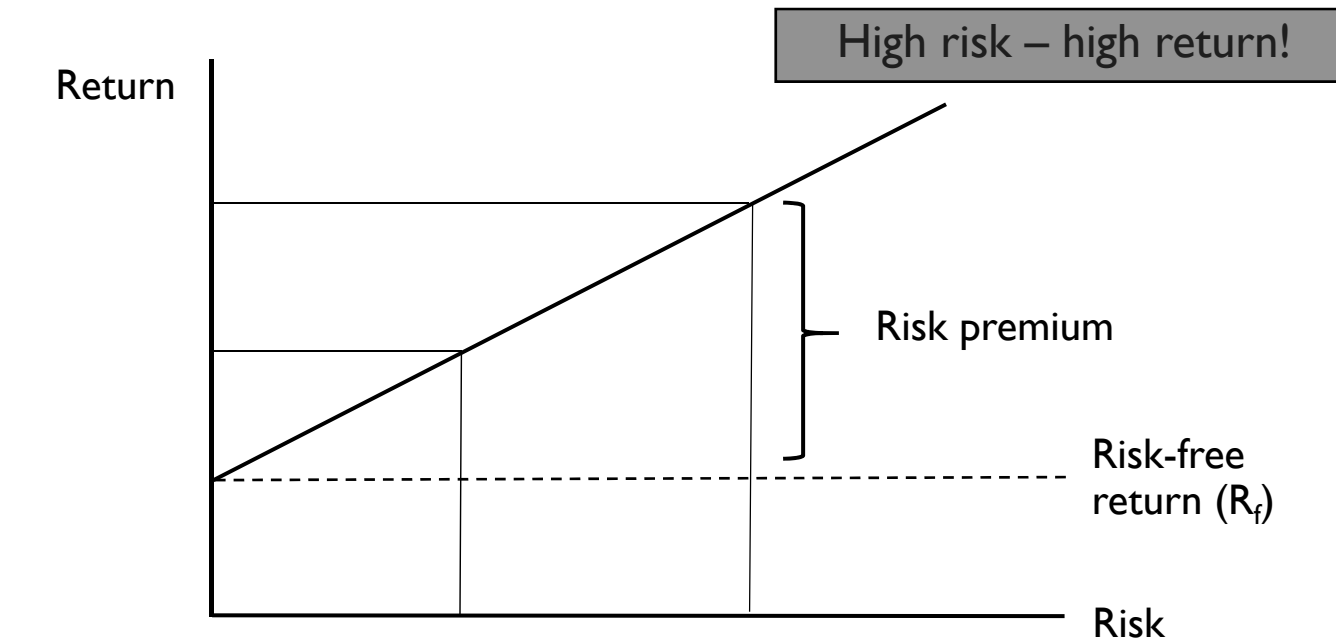
# Investment: Debt Advantage

## Rationale

Items	Case 1	Case 2	Case 3	Case 4
(1) Project return	150	150	150	150
(2) Debt	0	40	60	90
(3) Equity	100	60	40	10
(4) Cost of debt: 10%	0	4	6	9
(5) Net project return: NPR = (1) – (2) – (4)				
(6) Return to Equity: ROE = (5) / (3)				

# Risk-Return Tradeoff

The relationship between risk and return



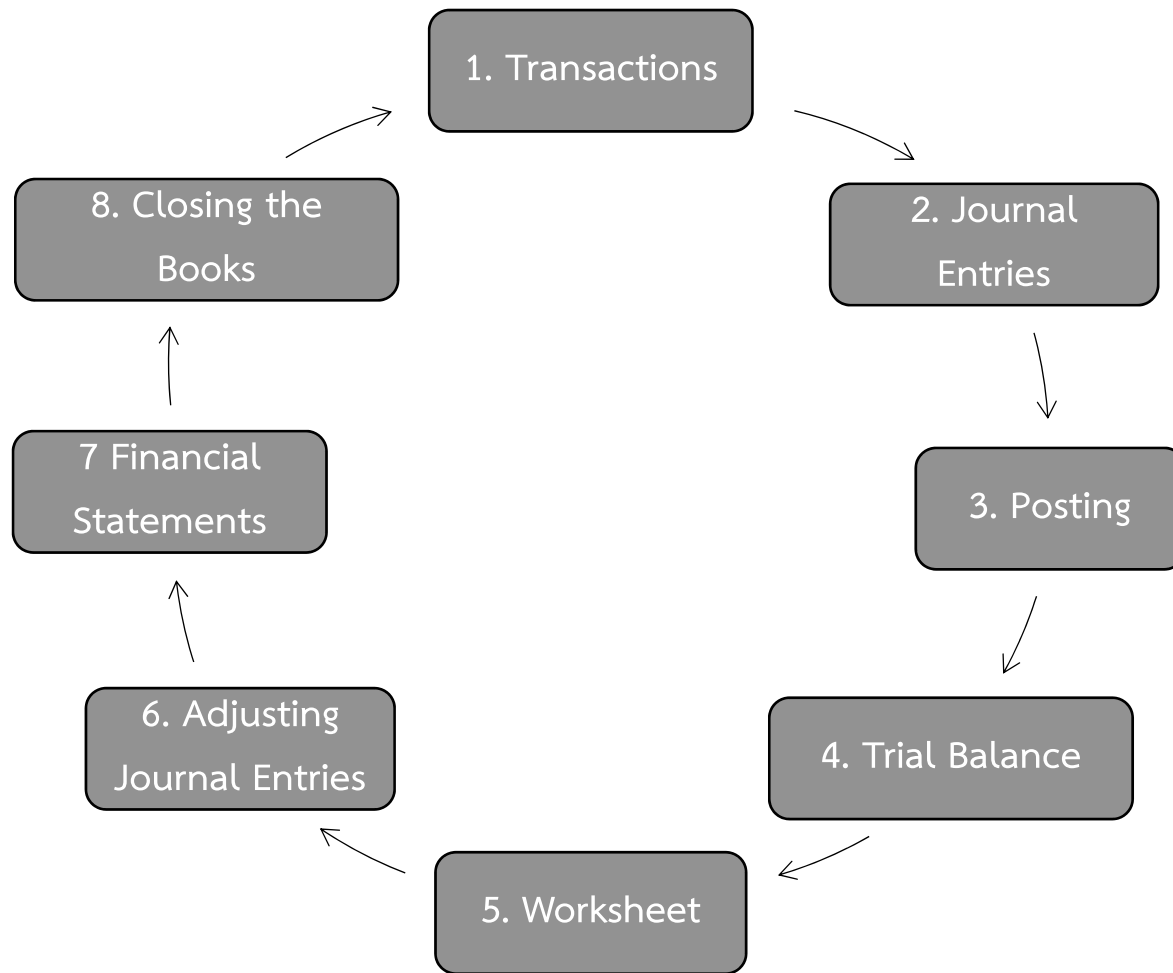
$$\begin{aligned}\text{Required rate of return} &= \text{Risk-free return} + \text{Risk premium} \\ &= R_f + \text{Risk premium}\end{aligned}$$

Part 2:

Basic concepts of financial statements



# Accounting Cycle



# Primary Financial Statements

Records that outline the financial activities of a business, an individual or any other entity.

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?

# Financial Statements

1. Balance sheet
2. Income statement
3. Statement of retained earnings /  
Statement of changes in owner equity
4. Statement of cash flow

\* Notes to the Financial Statements

# 1. Balance Sheet

Summary of the financial position of a company at a particular date

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

## Balance Sheet and Its Components

- 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

# 1. Balance Sheet: Its components

## **Current Assets**

- Cash
- Short-term investments
- Account receivable
- Inventory

## **Non-current / Fixed Assets**

- Plant and office equipment
- Machine
- Land

## **Current Liabilities**

- Account payable
- Accrued expense
- Short-term debt

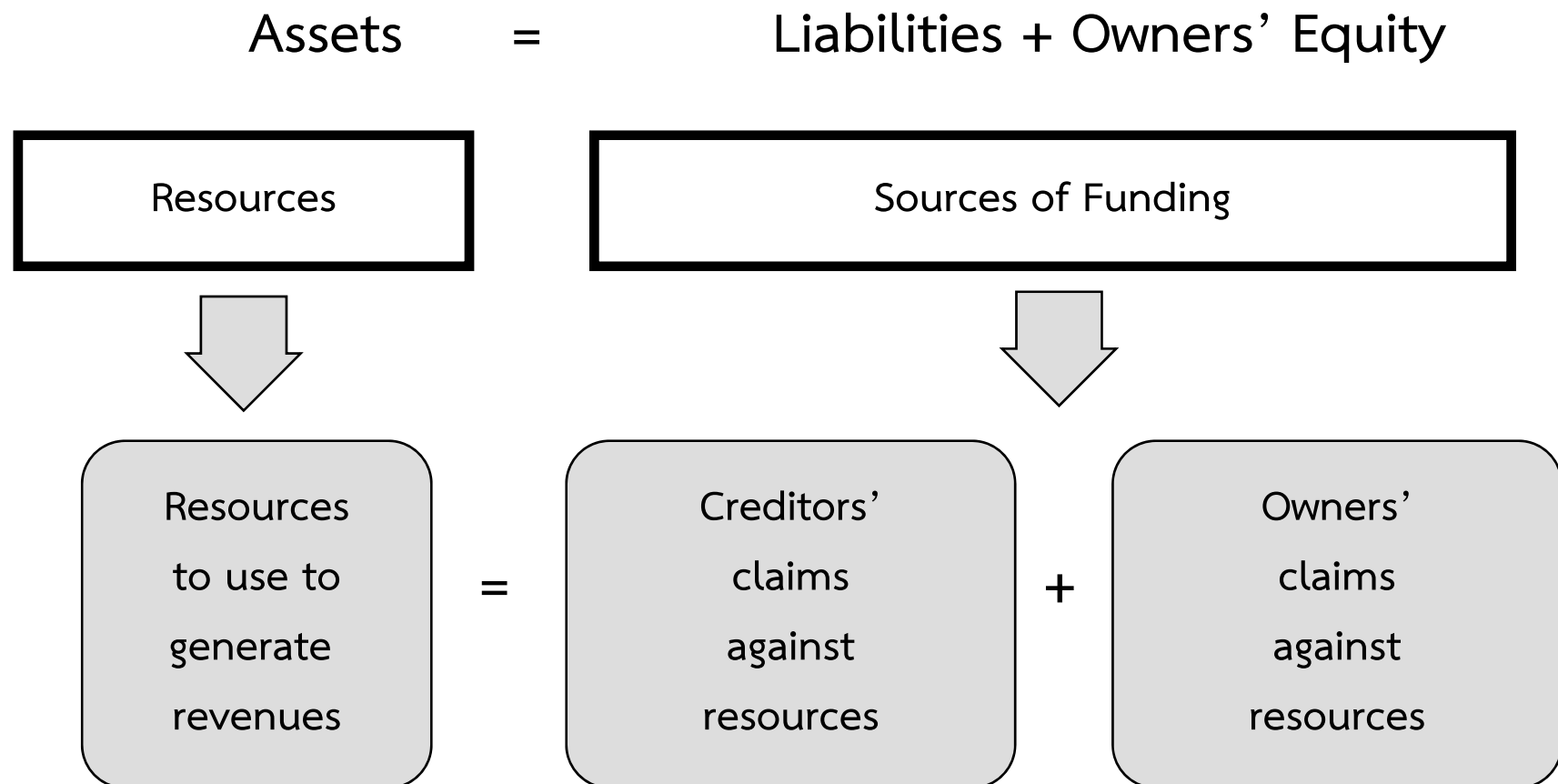
## **Non-current / Long-term Liabilities**

- Long-term loan
- Long-term bond

## **Equity**

- Capital stock
- Retained earning

# 1. Balance Sheet: Accounting Equation



# 1. Balance Sheet: Its Components

## Executive Paper Balance Sheet (millions)

	<b>Dec 2004</b>	<b>Dec 2005</b>	<b>diff</b>
<b><i>Assets</i></b>			
Current Assets			
Cash & Securities	75	110	35
Receivables	433.1	440	6.9
Inventory	339.9	350	10.1
Total	848	900	52
Fixed Assets			
P, P, E	929.5	1000	70.5
accum Depr	396.7	450	53.3
Net Fixed Assets	532.8	550	17.2
<b><i>Total Assets</i></b>	<b>1,380.80</b>	<b>1,450.00</b>	<b>69.2</b>

# 1. Balance Sheet: Its Components

## *Executive Paper Balance Sheet (millions)*

	<b>Dec 2004</b>	<b>Dec 2005</b>	<b>diff</b>
<b><i>Liabilities and Equity</i></b>			
Current Liabilities			
Debt due in 1 year	96.6	100.0	3.4
Payable	349.9	360.0	10.1
Total current liabilities	446.5	460.0	13.5
Long term debt	425.0	450.0	25.0
Shareholders equity	509.3	540.0	30.7
<b><i>Total liabilities and equity</i></b>	<b>1,380.80</b>	<b>1,450.00</b>	<b>69.2</b>



## 1. Balance Sheet: Its Components

<b><u>Executive Paper - Other Data</u></b>	<b>2004</b>	<b>2005</b>
Market value of equity	598	708
Average number of shares, millions	14.16	14.16
Share price, dollars	42.25	50

# 1. Balance Sheet: Special Issues

## Classified and Comparative Balance Sheets

- They distinguish between:
  - Current and long-term assets
  - Current and long-term liabilities
- Listed in decreasing order of liquidity

## Limitations

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

## 2. 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?

## 2. 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

## 2. Income Statement: Its Components

Sale Revenue

(-) Cost of goods sold

**Gross profit**

operating expenses

- Salary

- General expenses

- Other operating expenses

(-) Total operating expenses

**Earning before interest, taxes, and depreciation (EBITDA)**

(-) Depreciation and amortization

**Earning before interest and taxes (EBIT) = operating income**

(-) Interest expense

**Earning before taxes (EBT)**

(-) Income Taxes

**Net income**

## 2. Income Statement: Example

Sales	\$25,265.00
<u>Costs of Goods Sold</u>	<u>-\$19,891.00</u>
Gross Profit	\$5,374.00
<u>Cash operating expense</u>	<u>-\$2,761.00</u>
EBITDA	2,613.00
Depreciation & Amortization	-\$156.00
<u>Net other Income and Expense (+/-)</u>	<u>-\$6.00</u>
EBIT	\$2,451.00
<u>Interest</u>	<u>-\$0.00</u>
EBT	\$2,451.00
Income Taxes	-\$785.00
<u>Special Income/Charges (+/-)</u>	<u>-\$194.00</u>
<b><u>Net Income (EAT)</u></b>	<b><u>\$1,666.00</u></b>

### 3. Statement of Retained Earnings

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

= to measure changes in owner's equity from the beginning of period to the end of period

Reporting:

1. As a separate statement
2. Shown in a Statement of Comprehensive Income

### 3. Statement of Retained Earnings

**Beginning retained earnings**

**+ Net income**

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**– Dividends paid**

**= Ending retained earnings**



## 4. 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.

## 4. Statement of Cash Flows: Background

- Accounting profit vs. Cash Flows
  - Accrual Method

### Sale

- As CASH
- As CREDIT => Account Receivable

### Cost of goods sold

- Paid as CASH
- Paid as CREDIT => Account Payable
- Stock => Inventory

### Operating expense

- Paid as CASH
- Unpaid items => Accrual expenses
- Non-cash items => Depreciation

## 4. Statement of Cash Flows: Background

- Accounting profit vs. Cash Flows

- Accrual Method

### Operating Cash Flow Calculation

#### 1. Income Statement

Operating cash flow = Net Income + Depreciation and Amortization

#### 2. Balance Sheet – changes in current assets (CA) and liabilities (CL)

Changes in CA and CL	Source of Inflow	Source of Outflow
1. Account Receivable		
2. Inventory		
3. Account Payable		
4. Accrual Expense		

Operating Cash vs. Cash Flows?

## 4. Statement of Cash Flows: Classification of Cash Flow

### CASH INFLOW VS. CASH OUTFLOW

- 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.

## 4. Statement of Cash Flows: Classification of Cash Flow

	Operating activities	Investing activities	Financing activities
Cash Inflow	<ul style="list-style-type: none"> <li>• Sale of goods or services</li> <li>• Sale of investments in trading securities</li> <li>• Interest revenue*</li> <li>• Dividend revenue*</li> </ul>	<ul style="list-style-type: none"> <li>• Sale of plant assets</li> <li>• Sale of securities, other than trading securities</li> <li>• Collection of principal on loans*</li> </ul>	<ul style="list-style-type: none"> <li>• Issuance of own stock</li> <li>• Borrowing</li> </ul>
Cash Outflow	<ul style="list-style-type: none"> <li>• Inventory payments</li> <li>• Interest payments*</li> <li>• Wages</li> <li>• Utilities, rent</li> <li>• Taxes</li> </ul>	<ul style="list-style-type: none"> <li>• Purchase of plant assets</li> <li>• Purchase of securities, other than trading securities</li> <li>• Making of loans to other entities*</li> </ul>	<ul style="list-style-type: none"> <li>• Dividend payments*</li> <li>• Repaying principal on borrowing</li> <li>• Treasury stock purchase*</li> </ul>

## 4. Statement of Cash Flows: Calculation – (1)

1. Analyze **Balance Sheet** – Source of Inflow vs. Source of Outflows

Assets	Liabilities + Equity
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Note: (1) Retained earning

(2) Fixed Assets

## 4. Statement of Cash Flows: Calculation – (2)

2. Put the items into the activities in statement of cash flows and compute net cash flow

- Operating cash flow

=

- Investing cash flow

=

- Financing cash flow

=



## 4. Statement of Cash Flows: Calculation – (3)

Note for “Changes in Fixed Assets” calculation – Example 1 and 2

That is:

$$\begin{aligned} \text{Net Change in Fixed Assets or CapEx (Capital Expenditures)} \\ = (\text{EndCap} - \text{BeginCap}) + \text{Depreciation} \end{aligned}$$

**Note:**      CapEx                      = (EndCap – BeginCap) + Depreciation  
Gross Investment = Net Investment + Depreciation

## 4. Statement of Cash Flows: Analysis

Cash flows	Period A	Period B	Period C	Period D
Operating	(300)	700	2000	800
Investing	(1500)	(1000)	(800)	(200)
<u>Financing</u>	<u>2000</u>	<u>200</u>	<u>(700)</u>	<u>(300)</u>
Net Cash Flows	200	(100)	500	300

## Statement of Cash Flow

Cash--Op. Act.	\$ 973,000
Cash--Inv. Act.	(1,188,000)
Cash--Fin. Act.	<u>245,000</u>
Net increase	<u>\$ 30,000</u>
Beg. cash	<u>80,000</u>
End. cash	<u><u>\$ 110,000</u></u>

## Balance Sheet 12/31/11

## Balance Sheet 12/31/10

Cash	\$ 80,000
Other	<u>4,550,000</u>
Total	<u><u>\$4,630,000</u></u>

Liabilities	\$2,970,000
Cap. stock	900,000
R/E	<u>760,000</u>
Total	<u><u>\$4,630,000</u></u>

## Income Statement

Revenues	\$12,443,000
Expenses	<u>11,578,400</u>
Net income	\$ 864,600

## Retained Earning

R/E 12/31/10	\$ 760,000
Net income	864,600
Dividends	<u>(400,000)</u>
R/E 12/31/11	\$1,224,600

Cash	\$ 110,000
Other	<u>4,975,000</u>
Total	\$5,085,000

Liabilities	\$2,860,400
Cap. stock	1,000,000
R/E	<u>1,224,600</u>
Total	\$5,085,000

## 5. Notes to the Financial Statements

Four general types of notes:

1. Summary of significant accounting policies: assumptions and estimates.
2. Supplementary information required by the FASB or the SEC.
3. Additional information about the summary totals.
4. Disclosure of important information that is not recognized in the financial statements.

Question?