Introduction to Fundamentals of Business Finance

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Introduction

- How do investors decide where to put their money?

- Every business idea needs finance
  - Example: launching a product
  - https://www.youtube.com/watch?v=-WzKghHe9zk

- "Magic Wand Remote": asking £200k for a 10% share

- Would you invest?
- What questions would you ask?

Where to Put Money?

Everybody is an investor

Example: my pension has changed

"The purpose of MPF investment is to save for retirement. It is a long-term investment that can span three to four decades, during which you may go through different stages of life. Your MPF portfolio should be in line with your risk tolerance level. You can gradually reduce your holdings of higher-risk assets (such as stocks) while correspondingly increasing your holdings of lower-risk assets (such as bonds) as you get older, in order to reduce investment risk and protect your returns in the long term."

My options: HK stocks, Global stocks, Bonds, Cash

What should I do? What does it depend on?

Participants in Financial Markets

There are many different “players” in modern financial markets:

- **corporations, governments, and other institutions:**
  - use financial markets to raise funds (i.e. borrow money) for capital investments.
- **retail and institutional investors:**
  - provide these funds (i.e. lend money) by buying securities issued by corporations and governments.
- **banks and other financial institutions** (e.g. pension or mutual funds, etc.) :
  - act as intermediaries between investors and borrowers.

- common feature: at each step somebody is making an investment decision

For Investors Outside the Firm

Available financial securities that investors can invest on:

- money market instruments,
- equity (common stock),
- corporate and government debt (bonds),
- selected classes of derivatives (futures, options, etc.).

- How do we assess the risk of various financial securities?
- How do we evaluate portfolio performance?

The ultimate goal is to develop tools that allow investors

- to make **optimal investment decisions** based on risks and returns of available assets

Lecture Outline

- Corporate Finance and the Financial Manager
- Forms of Business Organization
- The Goal of Financial Management
- The Agency Problem and Control of the Corporation
- Financial Markets and the Corporation

Corporate Finance

- What *long-term investments* should the firm take on? (capital budgeting decision)
- Where will we get the *long-term financing* to pay for the investment? (capital structure decision)
- How will we manage the everyday financial activities of the firm? (working capital management decision)

Example

Airbus Industries as well as Boeing were considering developing a “super jumbo” aircraft that would be capable of carrying in excess of 600 passengers.

The cost of developing such an aircraft was at the time estimated at around $10 billion, not including the capital investment that would be necessary to actually build it.

As financial managers, we must decide:

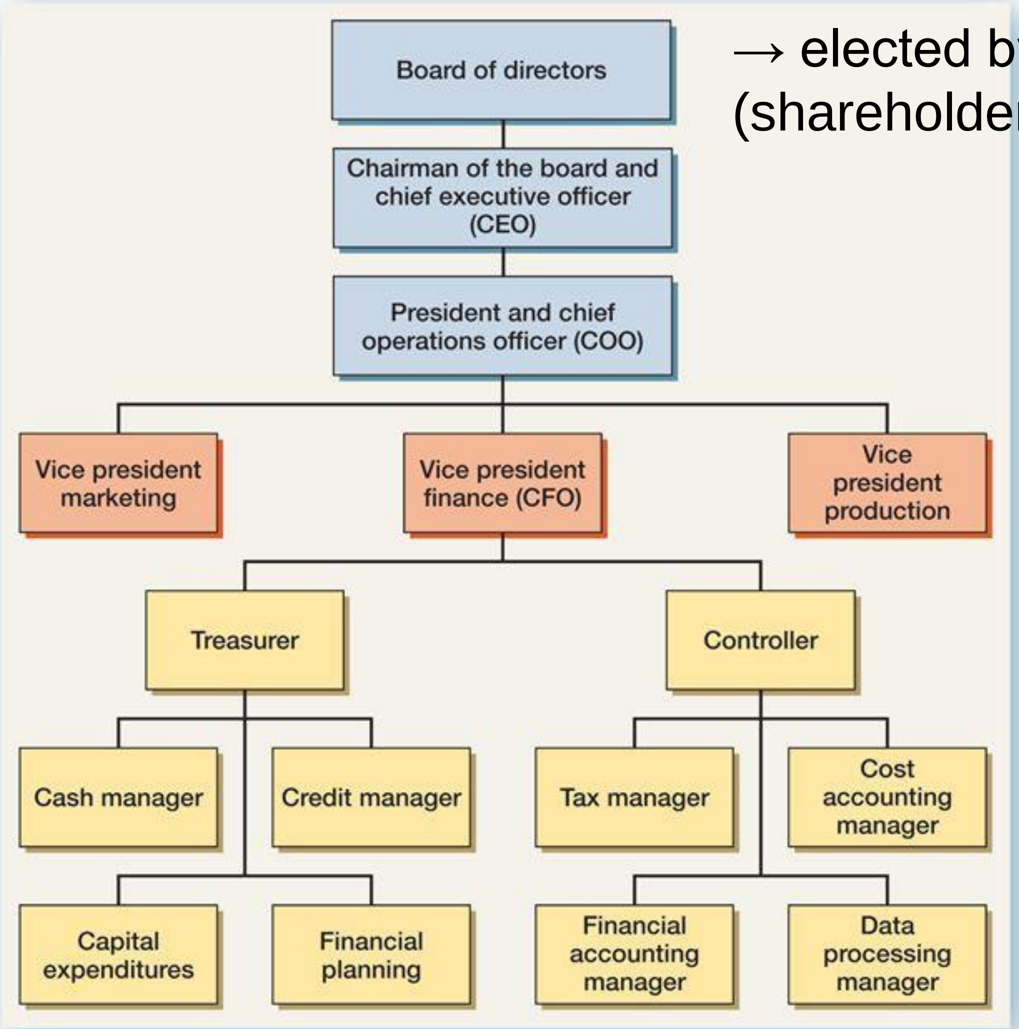
- should we sink the $10 billion to develop the “super jet”?

  capital budgeting decision

- if we decide to go ahead where do we get $10 billion?

  capital structure decision

Corporate Organizational Chart



→ elected by owners (shareholders)

Eg. [Apple Leadership]

Financial Management Decisions

- **Capital Budgeting**: the process of planning and managing a firm's long-term investments.
  - Identify investment opportunities that are worth more to the firm than they cost to acquire.

- **Capital Structure**: the mixture of long-term debt(borrowing) and equity(owners' investment) maintained by a firm.
  - How much should the firm borrow? What are the least expensive sources of funds for the firm?

- **Working Capital Management**: the management of a firm's short-term assets and liabilities.
  - How much cash and inventory should we keep on hand? Should we sell on credit? How will we obtain any needed short-term financing?

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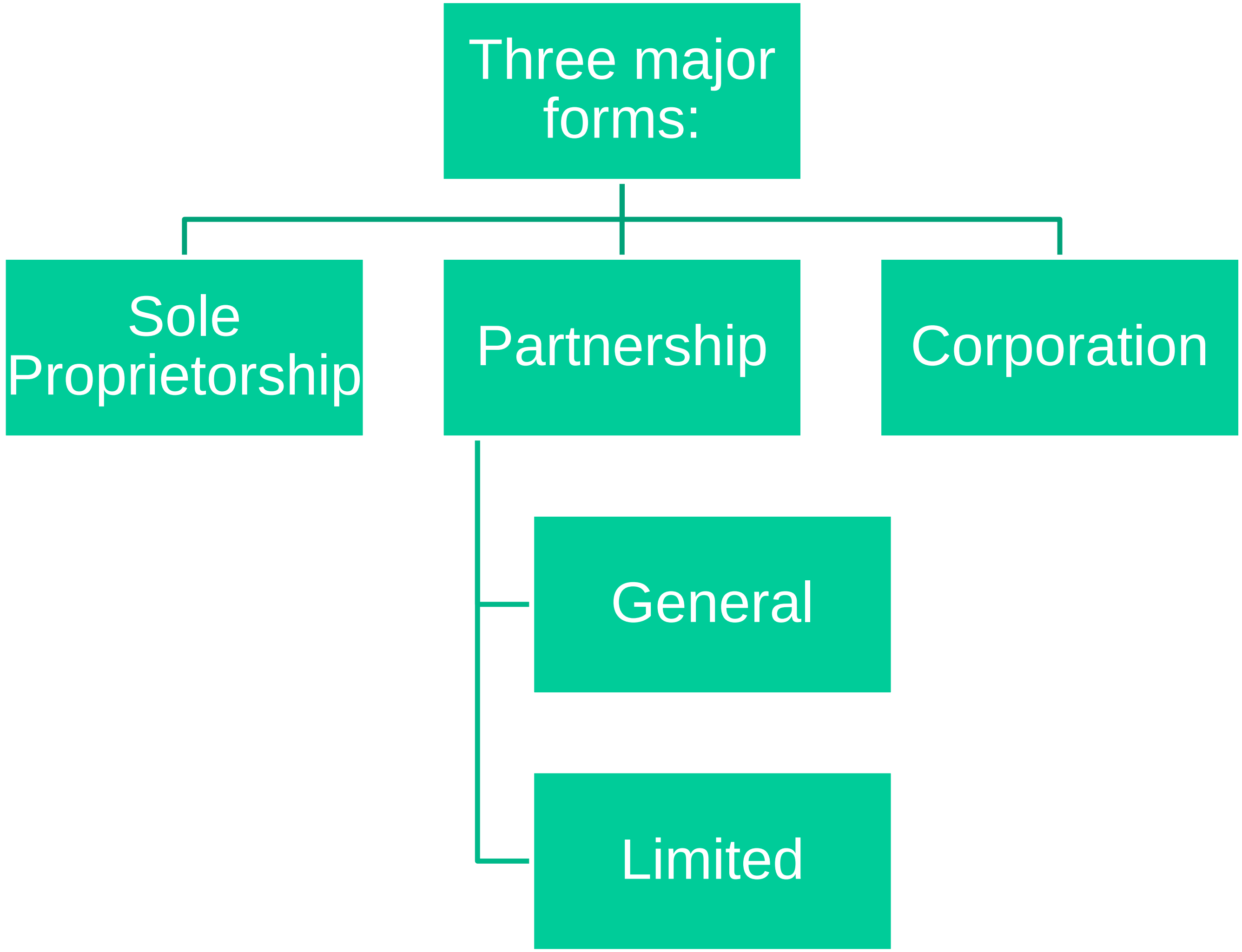
Forms of Business Organization



Sole Proprietorship

Under this organization method, an *individual* owns and manages the business.

- Advantages
  - Easiest to start
  - Least regulated
  - Single owner keeps all the profits
  - Taxed once as personal income

- Disadvantages
  - Limited to life of owner
  - Equity capital limited to owner's personal wealth
  - Unlimited liability
  - Difficult to sell ownership interest

Partnership

Under this organization method, a *group* of individuals collectively own and manage the business.

- Advantages
  - Two or more owners
  - More capital available
  - Relatively easy to start
  - Income taxed once as personal income

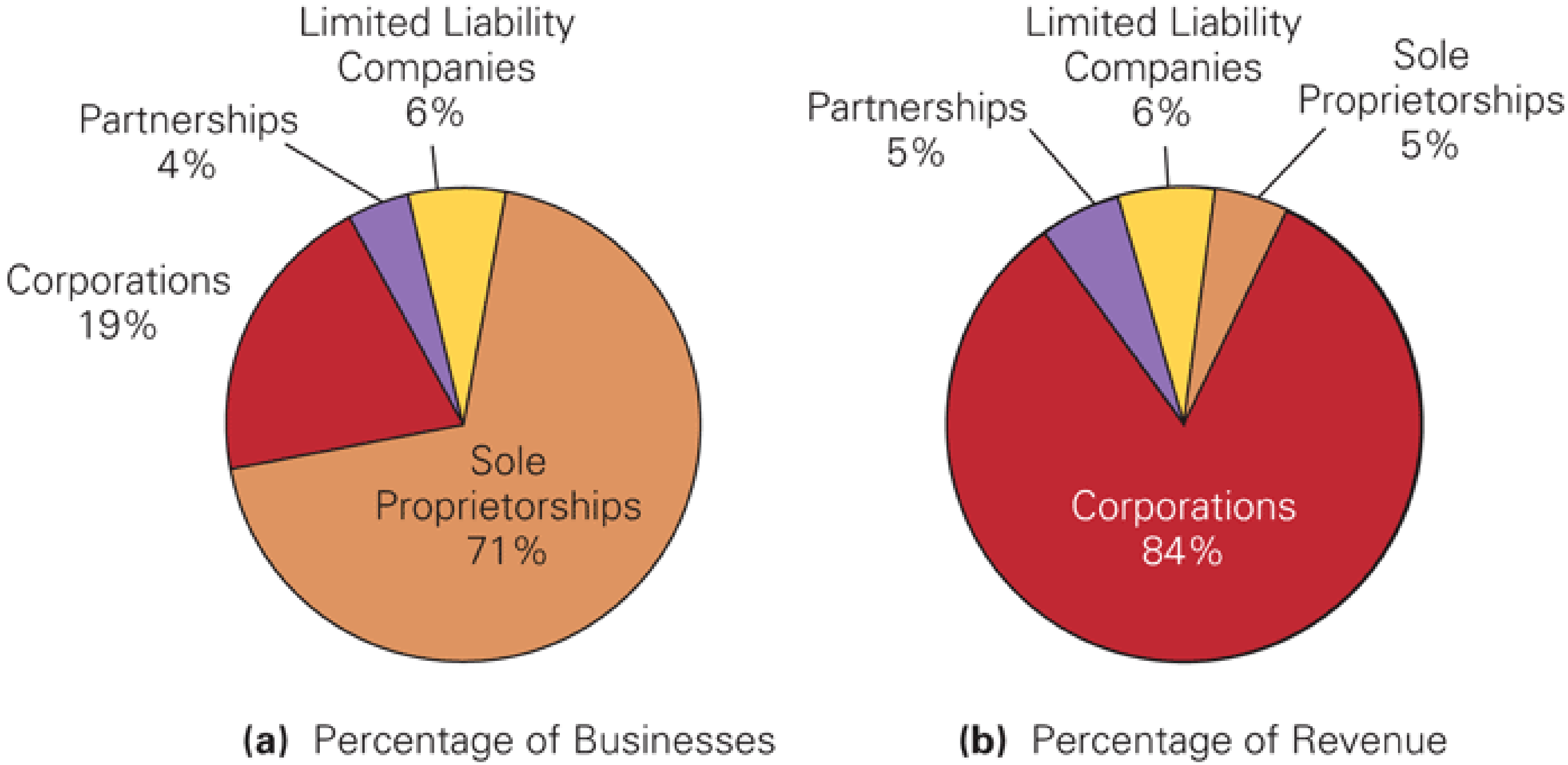
- Disadvantages
  - Unlimited liability
    - General partnership
    - Limited partnership
  - Partnership dissolves when one partner dies or wishes to sell
  - Difficult to transfer ownership

Corporation

Ownership and management are *separated*. A corporation issues equity shares. The holders of these shares are the *owners* of the firm.

- Advantages
  - Limited liability
  - Unlimited life
  - Separation of ownership and management
  - Transfer of ownership is easy
  - Easier to raise capital
- Disadvantages
  - Double taxation (income taxed at the corporate rate and then dividends taxed at the personal rate)

Types of U.S. Firms



Source: www.bizstats.com

Corporation

Private Company: firm's shares are usually closely held by a relatively *small number* of shareholders.

- Shareholders often include the company's original founders, some financial backers (e.g., venture capitalists) and others. Shares are not traded on any exchange.

Public Company: firm's shares are listed on a *stock exchange*.

- The company's shares are widely dispersed and traded in the secondary markets.

Corporation

Two Main Sources of External Financing

1). Debt

- By lending money to the corporation, debt holders become the corporation's *creditors and lenders*.
- Relationship Determined by Contract: a debt contract is a legally binding agreement.
  - It specifies principal, interest, maturity date, and specific protective covenants.
- Security and Seniority: in case of bankruptcy, debt holders collect *before equity holders*.
  - However, different debt holders have different priority claim to the cash flows and assets of a bankrupt firm, according to their respective debt contracts.

Corporation

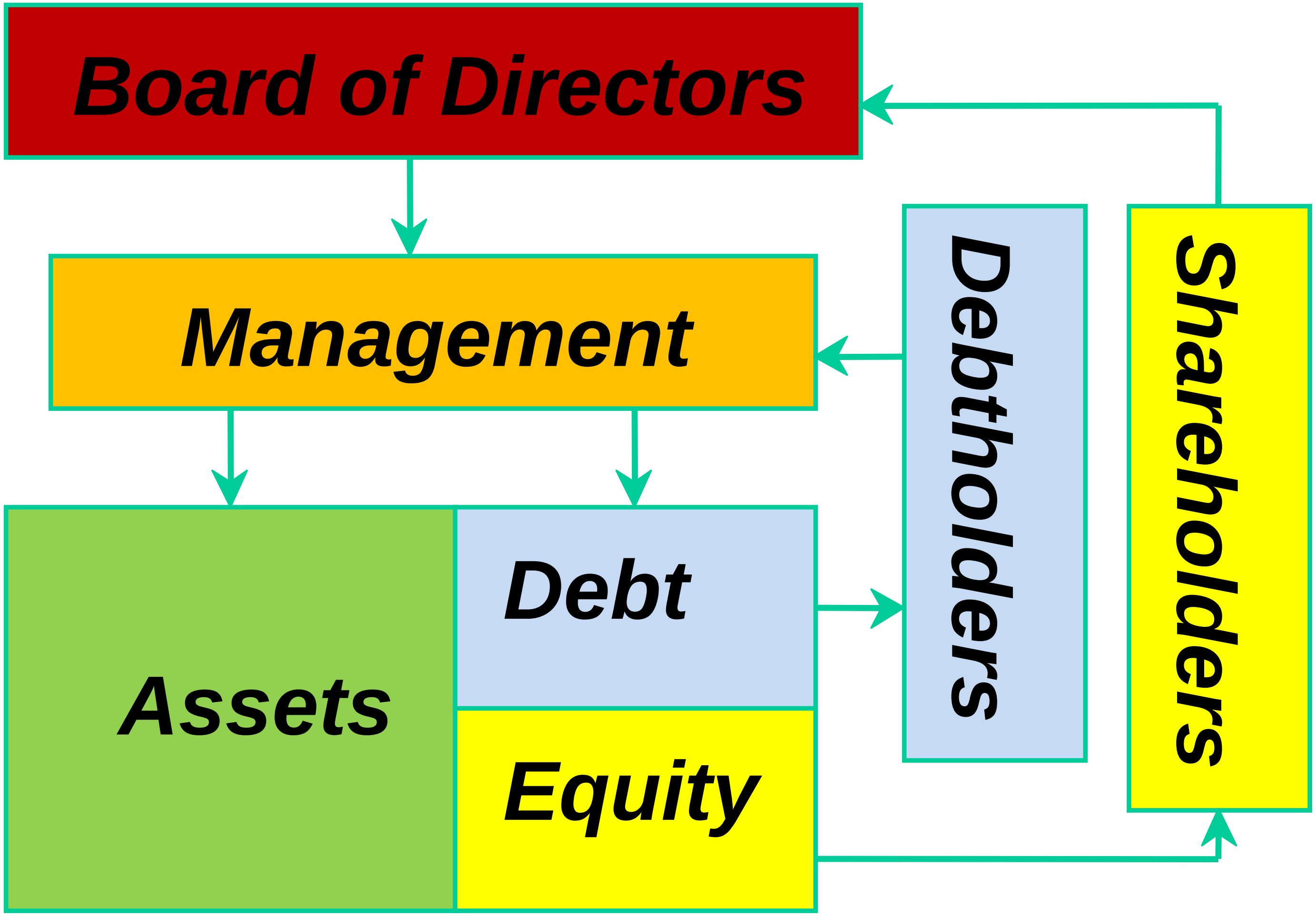
Two Main Sources of External Financing

2). Equity

- Shareholders' Ownership Rights: by buying shares in the corporation, shareholders become the *owners* of the firm.
  - Shareholders are the residual claimants of the firm.

- Shareholders' Payoffs: shareholders receive monetary returns in the following ways:
  - **Dividend** per share, paid to investors from the corporation's after-tax income.
  - **Capital gain** from the sale of shares (ownership rights) at a price higher than they were purchased for.

Separation of Ownership and Control



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Goal of Financial Management

- What should be the goal of a corporation?
  - Maximize *sales/market share*?
  - Minimize *costs*?
  - Avoid *financial distress* and *bankruptcy*?
  - Maximize *profit*?

Goal of Financial Management

Primary goal is *shareholder wealth maximization*, which is the same as maximizing the current *stock price*.

How Can Managers Maximize Stock Price?

- What determines stock prices?
  - The underlying firm's ability to generate cash flows

Three aspects of cash flows that affect asset value and thus stock price:

- ***Amount*** of cash flows expected by shareholders
- ***Timing*** of the cash flow
- ***Riskiness*** of the cash flow

Financial management decisions affect firm value and thus stock price.

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Agency Problem

Agency Relationship:

- Principal hires an agent to represent their interest.
- Stockholders (principals) hire managers (agents), via the Board of Directors, to run the company.

Agency Problem:

- Conflict of interest between principal and agent
- Managers are naturally inclined to act in their own best interests, e.g., maximize their own wealth and power.
- Shareholders want managers to maximize the value of the company.

Potential Conflict of Interests:

- Shareholders and managers

Agency Cost

Direct Agency Costs:

- Expenditures that benefit management: car and accommodation, big office, high pay
- Monitoring costs: auditors, audit committee, corporate governance

Indirect Agency Costs:

- Lost opportunities which would increase firm value in the long run, if accepted

Possible Solutions

Incentive Schemes:

- The *compensation plans* that tie the fortunes of the managers to the fortunes of the firm.

Direct Intervention:

- The *monitoring* by lenders, stock market analysts and investors.

Threat of Firing:

- The *threat* that poorly performing managers will be fired.

Facebook Compensation Package ($)

Name	Fiscal Year	Salary	Bonus	Stock Awards	Others	Total
Mark Zuckerberg	2015	1	—	—	5,037,840	5,037,841
CEO	2014	1	—	—	6,213,106	6,213,107
Sheryl Sandberg	2015	715,385	1,265,193	15,465,667	1,252,724	18,698,969
COO	2014	592,885	624,204	14,332,313	—	15,549,402
David Wehner	2015	665,385	653,365	15,465,667	9,000	16,793,417
CFO	2014	418,051	535,077	11,024,750	9,905	11,987,783
Christopher Cox	2015	639,423	894,141	10,310,705	9,500	11,853,769
CPO	2014	533,654	898,991	11,024,750	12,750	12,470,145
Mike Schroepfer	2015	639,423	943,360	10,310,705	9,140	11,902,628
CTO	2014	535,577	979,021	11,024,750	9,164	12,548,512

Example: Firing CEO

- Travis Kalanick stepped down as chief executive of Uber.
- Five of Uber's major investors demanded that the chief executive resign immediately. The investors included one of Uber's biggest shareholders, the venture capital firm Benchmark, which has one of its partners, Bill Gurley, on Uber's board.
- The company has been exposed this year as having a workplace culture issue. Mr. Kalanick is stepping down as Uber works to improve its relationships with some of its constituencies.
- In the case of Uber — one of the most highly valued private companies in the world — investors could lose billions of dollars if the company were to be marked down in valuation.
- Source: June 21 2017, New York Times

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The Firm and Sources of Funds

What are financial markets?

- Markets where “financial instruments” are traded
- Act as intermediaries between savers and borrowers

Primary Markets VS. Secondary Markets

Money Markets VS. Capital Markets

Market and Instrument: Classification

Primary markets:

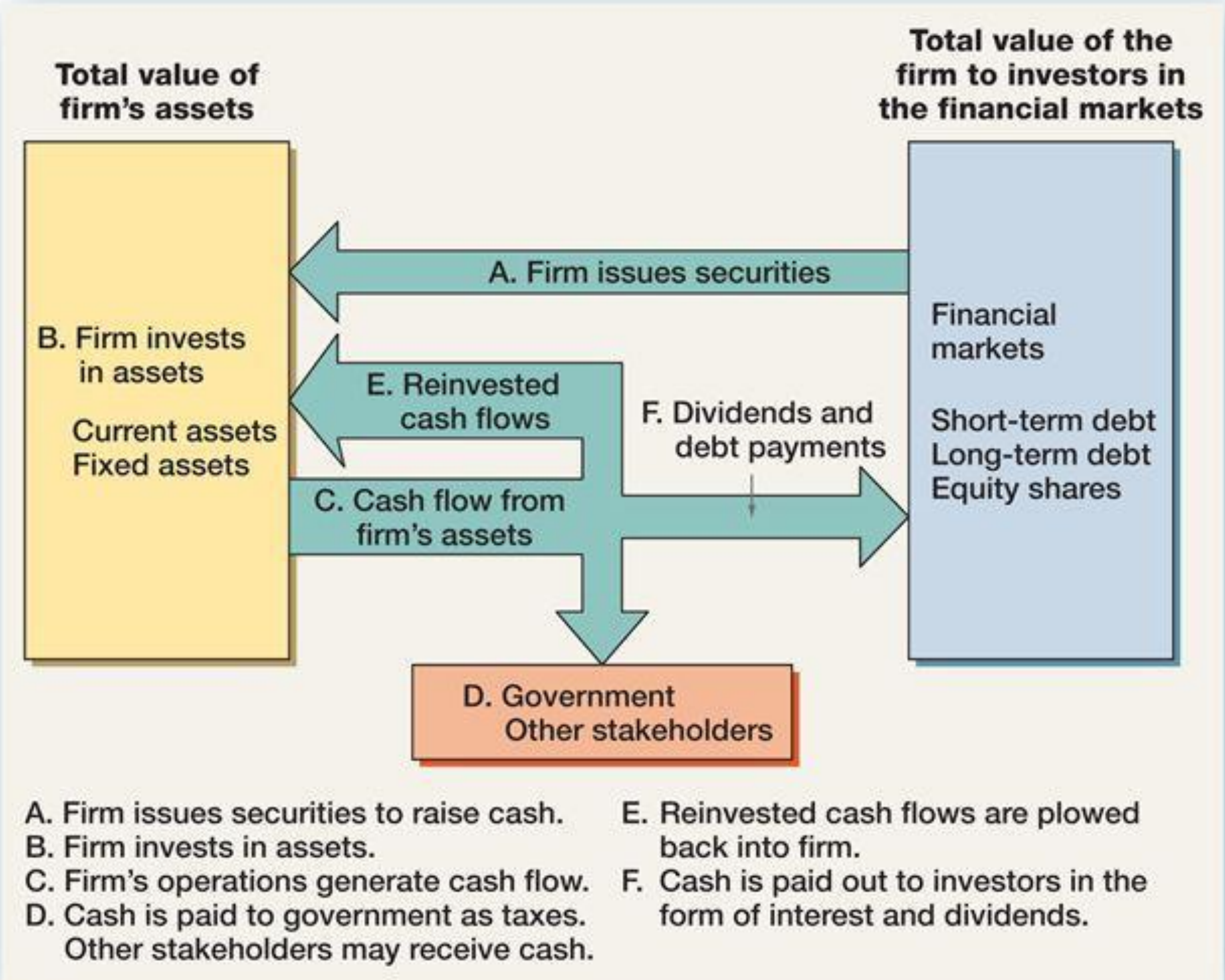
- securities are offered to the public for the first time
- cash flows from investors directly to issuing institutions
- examples:
  - treasury bills / bonds etc.
    - issued in treasury auctions
  - corporate securities (e.g. stock)
    - initial public offering (IPO)
    - seasoned equity offering (SEO)

Market and Instrument: Classification

Secondary markets:

- securities trade after primary market issue on organized exchanges or OTC
- securities are exchanged only between investors
- examples:
  - organized exchanges, including:
    - e.g. NYSE, LSE, TSE, NASDAQ, HKEX
  - derivatives markets, including:
    - e.g. CBOE, LIFFE
  - over-the-counter (OTC) markets:
    - e.g. OTC Link LLC

Cash Flow btw Firm and Financial Market



Market and Instrument: Classification

Money markets:

- short-term (< 1 year) maturities typically with low risk issued by governments or large firms used for liquidity / cash management
- examples:
  - treasury (“T-”in US) bills
  - certificates of deposit

Capital markets:

- longer-term (> 1 year) maturities often with higher risks issued by governments or corporations used for raising funds for capital investment
- examples:
  - treasury / municipal bonds
  - equity (stock)
  - long-term debt instruments (corporate bonds)

In-Class Exercise

Corporate finance may be thought of as the analysis of three primary decision areas. Which of the following correctly lists these areas?

A. Capital structure, capital budgeting, security analysis
B. Capital budgeting, capital structure, capital spending
C. Capital budgeting, capital structure, net working capital
D. Capital structure, net working capital, capital rationing
E. Capital budgeting, capital spending, net working capital

In-Class Exercise

Determining the mix of debt and equity to be used to finance a firm is which type of a decision?

A. Capital budgeting
B. Capital structure
C. Capital spending
D. Net working capital
E. None of the above

In-Class Exercise

The primary goal of financial management is to:

A. Maximize current sales.
B. Maximize the current value per share of the existing stock.
C. Avoid financial distress.
D. Minimize operational costs.
E. Maintain steady earnings growth.

In-Class Exercise

Agency costs refer to:

A. The total dividends paid to shareholders over the lifetime of the firm.
B. The costs that result from default and bankruptcy of the firm.
C. Corporate income subject to double taxation.
D. The costs of the conflict of interest between stockholders and management.
E. The total interest paid to creditors over the lifetime of the firm.

Summary

- Corporate finance involves *investment* decisions, *financing* decisions, and *working capital management*.
- The goal of financial management is to make decisions that *maximize the market value* of the equity or owners' wealth.
- There are conflicts of interest between shareholders and managers — *agency costs*.
- Financial markets function as both primary and secondary markets for debt and equity securities.

Information on the Web

- The Internet provides a wealth of information about individual companies.
- One excellent site is https://finance.yahoo.com/
- For locally listed companies, visit the HKEX website at https://www.hkex.com.hk/