Notes 1

INTRODUCTION

Introduction

Topics of finance include:

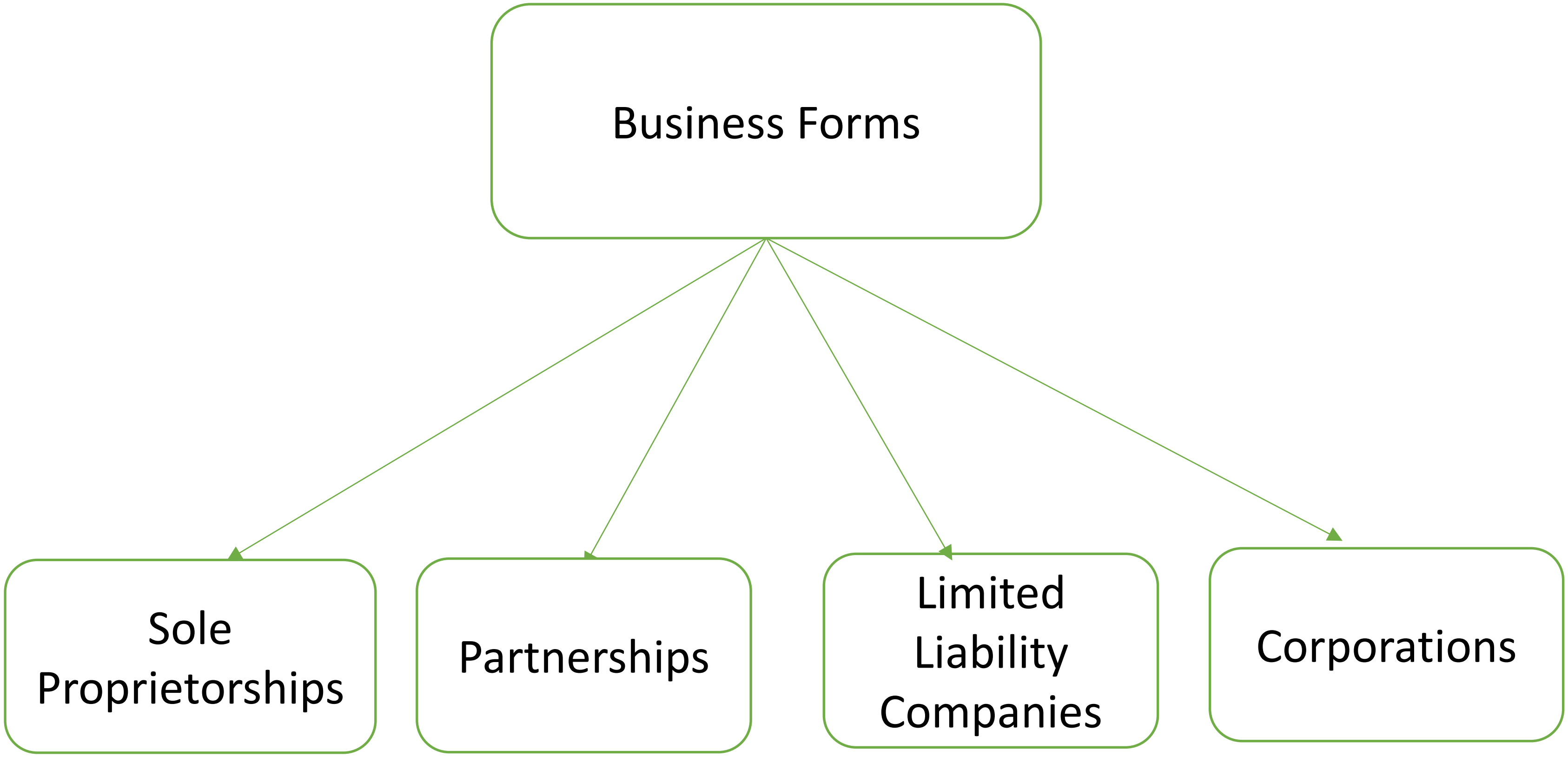
- public finance,
- international finance,
- corporate finance,
- risk management, and
- asset pricing

Notes Outline

Review of the US financial environment as follow:

1. Types of business organizations
2. The Basic Structure of the U.S. Financial Markets
3. The Financial Marketplace: Financial Institutions
4. The Financial Marketplace: Securities Markets

Business Organizational Forms



Sole Proprietorships

***Definition:** Sole Proprietorship*

It is a business owned by a single individual who is entitled to all of the firm's profits and is responsible for all of the firm's debt

- The sole proprietors typically raise money by investing their own funds and by borrowing from a bank.
- Advantages:
  - Easy to start
  - No need to consult others while making decisions
  - Taxed at the personal tax rate
- Disadvantages:
  - Personally liable for the business debts
  - The business ceases on the death of the proprietor
  - Harder to raise money

Partnerships

Definition: *Partnership*

A general partnership is an association of two or more persons who come together as co-owners for the purpose of operating a business for profit.

- Advantages:
  - Relatively easy to start
  - Taxed at the personal tax rate
  - Access to funds from multiple sources or partners
- Disadvantages:
  - Partners jointly share unlimited liability
  - It is not always easy to transfer ownership

Limited Liability Company (LLC)

- Limited Liability Company (LLC) combines the tax benefits of a partnership (no double taxation of earnings) with the limited liability benefit of a corporation (the owner’s liability is limited to what they invest).
- The owners can also run the company.
- Relatively new business form in the United States.

Corporation

Definition: *Corporation*

A business organized as a separate legal entity owned by stockholders

- If very large sums of money are needed to build a business, then the typical organizational form chosen is the corporation. The corporation is **legally owned by its current set of stockholders**, or owners.
- A corporation legally **functions separately** and apart from its owners (the shareholders). Corporation can individually sue and be sued.
- **The Board of Directors** are elected by the shareholder, and the board appoints the senior management of the firm.

Corporation - Ownership

- Represented by shares of stock
- **An owner** of stock is called
  - Shareholder
  - Stockholder
  - Equity Holder
- Sum of all ownership values is called **equity**.
- There is no limit to the number of shareholders and, thus, the amount of funds a company can raise by selling stock.
- Owner is entitled to **dividend** payments.

Corporation

- Types of Corporations
  - Public Companies
  - Private Corporations
- Advantages
  - Liability of owners is limited to invested funds
  - Life of corporation is not tied to the owner
  - Easier to transfer ownership
  - Easier to raise Capital
- Disadvantages
  - Greater regulation
  - Double taxation of dividends

Corporation - problem

- You are a shareholder in a corporation that has income before taxes of $4 million.
- Once the firm has paid taxes, it will distribute the rest of its earnings to its shareholders as a dividend.
- There are 1 million shares outstanding.
- Assume the corporate tax rate is 21%, and the personal tax rate on dividend income is 20%.
- As a shareholder with 100 shares, how much will you receive after all taxes are paid?

Corporation - Answer

- First, the corporation must pay its taxes. It earned \$4 million but must pay 21% × \$4 million = \$0.84 million in corporate taxes.
- That leaves \$3.16 million to distribute to shareholders. Collectively, shareholders will have to pay 20% × \$3.16 million = \$0.632 million in taxes on the dividends. This leaves \$3.16 million - \$0.632 million = \$2.528 million after all taxes are paid.
- That means that the dividend per share is \$2.528.
- As the owner of 100 shares, you will have \$252.8 after both corporate and personal taxes are paid.

Financial Market Players

- Within the financial markets, there are three principal sets of players that interact:
  1. Borrowers (individuals and businesses)
  2. Savers (mostly individuals, but not only)
  3. Financial Institutions (Intermediaries) (ex. Commercial banks)

Financial Intermediaries

- Financial institutions like
  - commercial banks,
  - finance companies,
  - insurance companies,
  - investment banks, and
  - investment companies
- These institutions are called **financial intermediaries** as they help bring together those who have money (savers) and those who need money (borrowers).

Commercial Banks - Everyone's Financial Marketplace

- **Commercial banks** collect the savings of individuals as well as businesses and then lend those pooled savings to other individuals and businesses.

- They **earn money** also by charging a rate of interest to borrowers that exceeds the rate they pay to savers.

Non-Bank Financial Intermediaries

- These include:
  - Insurance companies, such as Prudential;
  - Investment banks, such as Goldman Sachs;
  - Investment companies, including mutual funds, hedge funds and private equity firms.

Insurance Companies

- Insurance companies sell insurance to individuals and businesses to protect their investments.
- They **collect premium** and hold the premium in reserves until there is an insured loss and then pay out claims to the holders of the insurance contracts.
- These reserves are deployed in **various types of investments** including loans to individuals and businesses.

Investment Banks

- Investment banks are specialized financial intermediaries that help **companies and governments** raise money and provide advisory services to client firms when they enter into major transactions such as **mergers**.

The Stock Market

- The securities market allows businesses and individual investors to trade the securities issued by public corporations.

Definition **-** Security

A security is a negotiable instrument that represents a financial claim. It can take the form of ownership (stocks) or a debt agreement.

- Public Company
  - Stock is traded by the public on a stock exchange.
- Private Company
  - Stock may be traded privately.

The Stock Market

- The stock market provides liquidity to shareholders.

Definition - Liquidity

The ability to easily sell an asset for close to the price at which you can currently buy it.

The Stock Market

- **Primary Markets:** When a corporation itself issues new shares of stock and sells them to investors, they do so on the primary market.
- **Secondary Markets:** After the initial transaction in the primary market, the shares continue to trade in a secondary market between investors.

The Stock Market

- Most trades in the U.S. are in two venues:

    1. New York Stock Exchange (NYSE)

    2. NASDAQ

- Examples of stocks: Apple (AAPL), Disney (DIS)

Exchange Traded Funds (ETFs)

***Definition* –** Exchange-Traded Fund (ETF)

An exchange-traded fund (ETF) is similar to a mutual fund except that the ownership shares in the ETF can be bought and sold on the stock exchange.

- Most ETFs track an index, such as the S&P 500.
- Examples: VOO, SPY, VTI, QQQ.

Mutual Funds

***Definition* – Mutual funds**

Mutual funds are professionally managed according to a stated investment objective.

- Individuals can invest in mutual funds by buying shares in the mutual fund at the net asset value (NAV).
- For example, suppose the mutual fund has $60 million in total investments, $5 million in cash, and $15 million in liabilities. The fund has 10 million shares outstanding. Calculate the NAV.

- $NAV = \frac{60{,}000{,}000+5{,}000{,}000-15{,}000{,}000}{10{,}000{,}000} = \$5.$

Hedge Funds

- Hedge funds are similar to mutual funds but are **less regulated, take more risk**, and are generally open only to high net worth investors (typically **$1 million and above**).
- In addition to the management fee (about 2%), most funds include an incentive fee (typically 20% of profits) based on the fund's overall performance.

Private Equity Firms

Definition – Private Equity Firms

Private equity firms is a financial intermediary that invests in equities that are not traded on the public capital markets.

- Two types of private equity firms dominate this group:
  1. Venture capital (VC) firms and
  2. Leveraged buyout (LBO) firms.

Private Equity Firms

- **Venture capital** firms provide financing for private start-up companies when they are first founded.
- For example, initial financing of ***Google*** was provided by a venture capital firm.

Private Equity Firms

- **Leveraged buyout (LBO)** firms acquire established firms that typically have not been performing well with the objective of making them profitable again and then selling them.
- An LBO typically uses debt to fund the purchase of a firm.