

CHAPTER 1: INTRODUCTION TO CORPORATE FINANCE

What is Corporate Finance?

In this course, we will examine the activity of employing scarce resources in the pursuit of *real* activities.

- From our *corporate finance* perspective, the scarce resource used or consumed in this real activity is the *capital* from those individuals that choose to invest in the firm or business.
- The capital exists in two forms: debt and equity (stock). These two claims represent what individuals have *invested* into the firm.
- Investors (equity and debt owners) only provide this capital to the firm because they *expect* to become wealthier as a result.

Corporations use this scarce capital to invest in real assets (*real investments* such as plant, property, equipment, R&D, training, etc.) in order to produce current and future real goods and services in the economy.

The debtholders and stockholders that provide this scarce resource (capital) to the corporation expect to earn an adequate rate of return on their financial investments.

- The ideal real corporate investment is one that is expected to produce a higher return than the minimum return (cost of capital) that investors expect.¹ Such an investment has Positive Net Present Value (NPV) and creates wealth for the stockholders or owners of the firm.
- Positive NPV means that the investment or project is worth more than the resources needed to create the project (economic return or benefit exceeds economic cost).

These financial *claims* (stocks and bonds) on the firm's cash flow that corporations issue are the focus of *Investments*. The value of a corporation's stocks and bonds derives from the *expected* future cash flow that will be paid out by the corporation.

The marketplace is what sets the value of the stocks and bonds of corporations. In a very real sense, the market evaluates a corporation and its managers every day. Current bond and stock prices reflect current expectations of *future* performance.

¹ This is the return that investors can expect to earn elsewhere on investments of comparable risk.

Financing and Capital Structure:

The accounting book values and actual market values of assets, debt, and equity can be very different. Whether we examine book or market value, the fundamental accounting equation holds: $\text{Assets} = \text{Liabilities} + \text{Equity}$

The book and market values of an actual corporation may resemble the following tables. The first table reports the accounting *book* values (historical amounts).

Assets (book value)		Liabilities + Owner's Equity (book value)	
Assets	6000	Debt	2000
		Equity	4000
Total	6000	Total	6000

However, in finance we are more concerned with the actual current *market* values of the assets, debt, and equity.

Assets (market value)		Liabilities + Owner's Equity (market value)	
Assets	12000	Debt	2000
		Equity	10000
Total	12000	Total	12000

Capital structure refers to how the assets of the firm are financed, using the current market values. Here the firm is worth \$12,000, and is financed by \$2000 of debt and \$10,000 of equity.

The Three Forms of Business Organization (covered in textbook)

1. Sole Proprietorship
2. Partnership
3. Corporation
 - Separate legal entity
 - Limited owner liability
 - Ownership is easily transferred
 - Separation of ownership and control of the firm
 - Unlimited life
 - Double taxation of earnings (not an advantage)
 - Greater access to the financial markets

The Goal of the Corporate Firm

Maximizing the *wealth* of the shareholders or owners is the primary goal. This is generally not consistent with *earnings* or *profit* maximization.²

- All other strategies, goals, and policies pursued by the corporation ought to be based on this market value or wealth-maximizing rule.
- An activity should be pursued only if it is in the best interest of the stockholders, i.e., it increases the value of the firm.
- A project that *increases* earnings may actually *decrease* the equity value. For example, say that a proposed risky project costs \$10 million and is *expected* to generate a 10% annual rate of return. However, stockholders would really require a 14% or greater annual return based on the level of expected risk. If accepted, this project would actually *destroy* value.

The value of a stock (unit of equity claim) is determined by:

1. The long run stream of expected *excess* cash flows, as discussed later.
2. The required rate of return that the market determines for this stock, based upon its underlying *risk*.

Should individuals and firms pursue a policy of value or wealth maximization? Does such an economy advance the general welfare of society? Adam Smith proposed the theory of the “Invisible Hand”. The following quote is from Adam Smith’s Inquiry into the Nature and Causes of the Wealth of Nations, 1776.

“As every individual, endeavours as much as he can both to employ his capital in the industry, and to direct that industry that its produce may be of the greatest value, every individual necessarily labours to render the annual revenue of the society as great as he can. In doing so he generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Thus, by pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it. I have never known much good done by those who pretended to trade for the public good.”



Adam Smith espoused an economy where individual agents endeavor to increase their wealth, and believed that such an economy produces the highest level of general welfare. Scarce resources are then allocated or deployed to their most productive and valuable use within the economy.

² Enron is an example of a corporation that reported consistently higher *earnings*; however, its actual cash flow (what really matters) was negative, eventually leading to the failure and bankruptcy of Enron in late 2001.

The Corporation: Separation of Ownership and Control

Separation of ownership and control is typical of most large corporations.

Management is responsible for the day-to-day operations. Shareholders own the firm; however, they usually have limited input on day-to-day activities. Therefore, owners cannot perfectly monitor and assess the performance and work effort of the management. No firm can ever be perfectly transparent from the outside!³

Conflicts arise when the goals of management differ from the goals of shareholders. These are called **agent-principal problems**. Stockholders (principals) hire the managers (the agents) to run the corporation. Managers may have an incentive to maximize the managers' welfare, as opposed to maximizing shareholder wealth.

In the past, individuals directly owned most common stock. Today, most common stock is indirectly owned by individuals through institutions, i.e., pension funds, insurance companies, mutual funds. These institutions have been increasingly active in corporate governance. Institutions have the power to do what individual shareholders cannot easily do on their own.

Agency Costs

Agency costs refer to the costs of resolving conflicts of interest between managers and shareholders. Agency problems are costly because shareholders have to bear the costs of controlling managers. Methods to control management activities include:

- Managerial incentives: one method to mitigate the conflict of interest is to link the management compensation to shareholder wealth, such as linking compensation to the stock price or offering participation in stock options.
- Monitoring and auditing the corporation.
- The threat of corporate takeovers (managers typically are fired after a successful takeover).
- The voting mechanism and corporate governance. The corporate charter determines how difficult it is to replace the management team through the board of directors.
- The labor market for managers (concern for reputation).

³ A key issue in corporate finance is *Information Asymmetry*. It is generally assumed that corporate managers possess superior knowledge about the firm's true value and future prospects than individuals outside the firm. Many managerial actions that we observe, e.g., financing decisions, dividend changes, etc., will likely reveal what managers believe or perceive about the firm's true value and future prospects.

Another Agent-Principal Relationship (Stock- versus Bond-Holders:

Bondholders contribute capital to the firm. The stockholders (the agents in this relationship) might try to gain at the expense of the bondholders. There is often a strong incentive to gamble with borrowed money (covered in Chapter 16).

Bondholders are certainly aware of this issue, and always insist on a bond indenture or contract to ensure that the debt is repaid.

“Excess” Capital

Corporations are expected, at some point in their life, to generate positive cash flow from their real operating activities. Growth oriented companies will typically need to reinvest all or most of their cash flow into new corporate investments (capital expenditures).

Any capital expenditure should have a Positive Net Present Value (NPV), i.e., it is expected to increase the value of the firm and wealth of the owners.

Maturing or mature firms will likely have more internal cash flow than Positive Net Present Value growth opportunities. The *excess* cash flow needs to be paid out to the owners. The common ways to pay out cash are:

1. Stock repurchases
2. Cash dividend payments

The correct term for this excess cash flow that a corporation can pay out to stockholders or owners is called *Free Cash Flow to Equity* or FCFE.

A firm that is *never* expected to pay out any cash flow would have zero value.

How do you determine the value of a firm that has no earnings or dividends today? The answer is that the firm is *expected* to eventually become profitable and mature, and thus will begin to pay out cash some day in the future. The job of a stock analyst and/or investment professional is to forecast those future cash flows.

Primary versus Secondary Markets

When a government entity issues bonds or a corporation issues new securities, i.e., bonds or stocks, this is known as a *primary* market activity. The issuer of the bonds or stocks receives the proceeds of the issue.

The trading of previously issued stocks and bonds takes place in the *secondary* markets. The **New York Stock Exchange** (NYSE) and **Nasdaq** stock markets are examples of secondary markets for stocks (and bonds to a much lesser extent).

- Here is where ownership of the security is transferred. The original issuer of the security plays no role whatsoever in this activity.

The NYSE is an example of an exchange or auction type of secondary market. Buy and sell orders for NYSE listed stocks are sent to the exchange in Lower Manhattan.

- Each NYSE listed stock is assigned to one *specialist*, who is responsible for maintaining a fair and orderly market in the NYSE trading of that stock. The 3000 firms listed on the NYSE are assigned to about 330 specialists.
- The specialist must take a position in that stock (make the market) if a buy or sell order cannot be matched to an offsetting order.

The Nasdaq stock market is a dealer (market maker) driven type of secondary market. It is sophisticated computerized network of security dealers.

- Security dealers quote their Bid and Ask prices on the Nasdaq system.
- The Bid price is the price the dealer is willing to pay you for the stock you wish to sell and the Ask price is the price you must pay the dealer to buy the stock.
- Each Nasdaq National Market System listed stock must have at least two dealers willing to make a market in that stock (the average stock has about nine dealers).

Dealer driven markets such as the Nasdaq are also called Over-the-Counter or OTC markets. Most bond trading occurs in the OTC market.

Securities markets are heavily regulated:

- Public bond and stock financial markets (primary and secondary markets) in the U.S. are regulated by the Securities and Exchange Commission (SEC).
- Futures markets, such as the Chicago Board of Trade (futures are contracts whose value derives from the future delivery of some asset), are regulated by the Commodities and Futures Trading Commission (CFTC).