Introduction to Corporate Finance

Introduction

- Every decision made in a business has financial implications, and any decision that involves the use of money is a corporate financial decision. Defined broadly, everything that a business does fits under the rubric of corporate finance.
- The basic principles remain the same, whether one looks at large, publicly traded firms or small, privately run businesses. All businesses have to invest their resources wisely, find the right kind and mix of financing to fund these investments, and return cash to the owners if there are not enough good investments.
- The firm's investments are generically termed **assets**. Assets are often categorized in accounting statements into fixed assets, which are long-lived, and current assets, which are short-term.

- To finance these assets, the firm can obtain its capital from two sources. It can raise funds from investors or financial institutions by promising investors a fixed claim (interest payments) on the cash flows generated by the assets, with a limited or no role in the day-to-day running of the business. This type of financing is called as **debt**.
- Alternatively, it can offer a residual claim on the cash flows (i.e., investors can get what is left over after the interest payments have been made) and a much greater role in the operation of the business. This is called **equity**.

Principles of Corporate Finance

- Corporate finance is built on **three principles, the investment principle, the financing principle, and the dividend principle**. The investment principle determines where businesses invest their resources, the financing principle governs the mix of funding used to fund these investments, and the dividend principle answers the question of how much earnings should be reinvested back into the business and how much should be returned to the owners of the business.

- **The Investment Principle**: Invest in assets and projects that yield a return greater than the minimum acceptable hurdle rate. The hurdle rate should be higher for riskier projects and should reflect the financing mix used—owners' funds (equity) or borrowed money (debt). Returns on projects should be measured based on cash flows generated and the timing of these cash flows; they should also consider both positive and negative side effects of these projects.
- **The Financing Principle**: Choose a financing mix (debt and equity) that maximizes the value of the investments made and match the financing to the nature of the assets being financed.
- **The Dividend Principle**: If there are not enough investments that earn the hurdle rate, return the cash to the owners of the business. In the case of a publicly traded firm, the form of the return—dividends or stock buybacks—will depend on what stockholders prefer.

Investment Principle

- Firms have scarce resources that must be allocated among competing needs. The first and foremost function of corporate financial theory is to provide a framework for firms to make this decision wisely.
- **Investment decisions** to include not only those that create revenues and profits (such as introducing a new product line or expanding into a new market) but also those that save money (such as building a new and more efficient distribution system).
- Decisions about how much and what inventory to maintain and whether and how much credit to grant to customers that are traditionally categorized as working capital decisions are ultimately investment decisions as well.
- At the other end of the spectrum, broad **strategic decisions** regarding which markets to enter and the acquisitions of other companies can also be considered investment decisions.

Financing Principle

- Every business, no matter how large and complex, is ultimately funded with amix of borrowed money (debt) and owner’s funds (equity). With a publicly trade firm, debt may take the form of bonds and equity is usually common stock. In a private business, debt is more likely to be bank loans and an owner’s savings represent equity.
- This principle opens the question of whether the existing mix is the right one. The type of financing a business should use, such as whether it should be long-term or short-term, whether the payments on the financing should be fixed or variable, and if variable, what it should be a function of- also fall in this category.

Dividend Principle

- Most businesses would undoubtedly like to have unlimited investment opportunities that yield returns exceeding their hurdle rates, but all businesses grow and mature. As a consequence, every business that thrives reaches a stage in its life when the cash flows generated by existing investments is greater than the funds needed to take on good investments. At that point, this business has to figure out ways to return the excess cash to owners.
- In private businesses, this may just involve the owner withdrawing a portion of his or her funds from the business. In a publicly traded corporation, this will involve either paying dividends or buying back stock. Note that firms that choose not to return cash to owners will accumulate cash balances that grow over time.
- Thus, analyzing whether and how much cash should be returned to the owners of a firm is the equivalent of asking (and answering) the question of how much cash accumulated in a firm is too much cash.

Types of firms

- There are four major types of firms: sole proprietorships, partnerships, limited liability companies, and corporations.
- A **sole proprietorship** is a business owned and run by one person. Sole proprietorships are usually very small with few, if any, employees. Although they do not account for much sales revenue in the economy, they are the most common type of firm in the world.
- The principal limitation of a sole proprietorship is that there is no separation between the firm and the owner—the firm can have only one owner.

- The owner has unlimited personal liability for any of the firm’s debts. That is, if the firm defaults on any debt payment, the lender can (and will) require the owner to repay the loan from personal assets. An owner who cannot afford to repay the loan must declare personal bankruptcy.
- The life of a sole proprietorship is limited to the life of the owner. It is also difficult to transfer ownership of a sole proprietorship.

Partnerships

- A **partnership** is identical to a sole proprietorship except it has more than one owner.
- *All* partners are liable for the firm's debt. That is, a lender can require *any* partner to repay all the firm's outstanding debts.
- The partnership ends on the death or withdrawal of any single partner, although partners can avoid liquidation if the partnership agreement provides for alternatives such as a buyout of a deceased or withdrawn partner.
- Some old and established businesses remain partnerships or sole proprietorships. Often these firms are the types of businesses in which the owners' personal reputations are the basis for the businesses. For example, law firms, groups of doctors, and accounting firms are often organized as partnerships. For such enterprises, the partners' personal liability increases the confidence of the firm's clients.

- A **limited partnership** is a partnership with two kinds of owners, general partners and limited partners. General partners have the same rights and privileges as partners in a (general) partnership—they are personally liable for the firm's debt obligations.
- Limited partners, however, have **limited liability**—that is, their liability is limited to their investment. Their private property cannot be seized to pay off the firm's outstanding debts.
- Furthermore, the death or withdrawal of a limited partner does not dissolve the partnership, and a limited partner's interest is transferable.
- However, a limited partner has no management authority and cannot legally be involved in the managerial decision making for the business.
- Private equity funds and venture capital funds are two examples of industries dominated by limited partnerships. In these firms, a few general partners contribute some of their own capital and raise additional capital from outside investors who are limited partners.
- A **limited liability company (LLC)** is a limited partnership without a general partner. That is, all the owners have limited liability, but unlike limited partners, they can also run the business.

Corporations

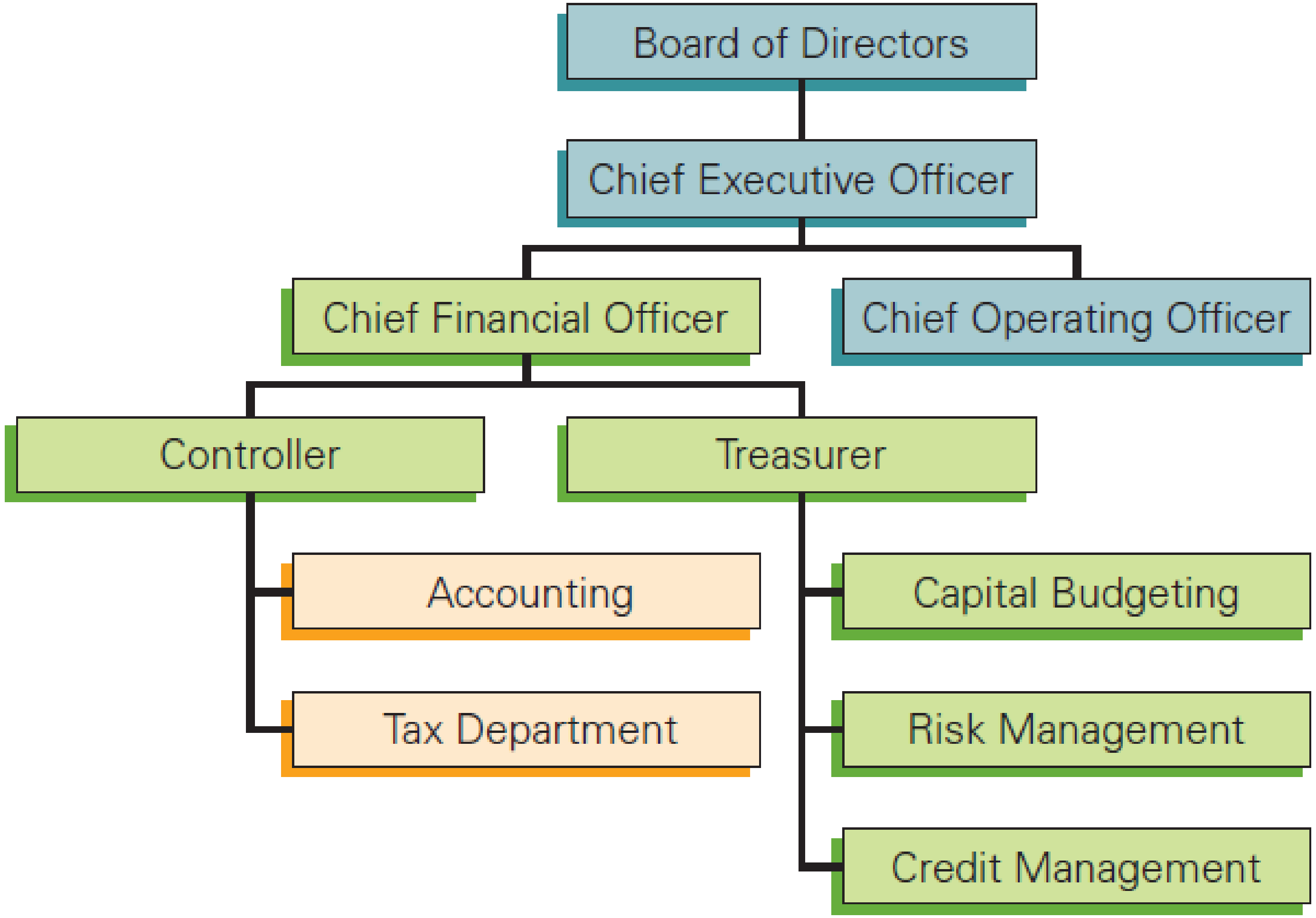
- The distinguishing feature of a corporation is that it is a **legally defined, artificial being** (a judicial person or legal entity), separate from its owners. As such, it has many of the legal powers that people have. It can enter into contracts, acquire assets and incur obligations.
- Consequently, the owners of a corporation (or its employees, customers, etc.) are not liable for any obligations the corporation enters into. Similarly, the corporation is not liable for any personal obligations of its owners.
- For jurisdictional purposes, a corporation is a citizen of the state in which it is incorporated. Most firms hire lawyers to create a corporate charter that includes formal articles of incorporation and a set of bylaws. The corporate charter specifies the initial rules that govern how the corporation is run.

- There is no limit on the number of owners a corporation can have. Because most corporations have many owners, each owner owns only a small fraction of the corporation. The entire ownership stake of a corporation is divided into shares known as **stock**. The collection of all the outstanding shares of a corporation is known as the **equity** of the corporation.
- An owner of a share of stock in the corporation is known as a **shareholder**, **stockholder**, or **equity holder** and is entitled to **dividend payments**, that is, payments made at the discretion of the corporation to its equity holders.
- A unique feature of a corporation is that there is no limitation on who can own its stock. Corporations can raise substantial amounts of capital because they can sell ownership shares to anonymous outside investors.

Ownership versus control of Corporations

- It is often not feasible for the owners of a corporation to have direct control of the firm because there are sometimes many owners, each of whom can freely trade his or her stock. That is, in a corporation, direct control and ownership are often separate.
- The shareholders of a corporation exercise their control by electing a **board of directors**, a group of people who have the ultimate decision-making authority in the corporation.
- The board of directors makes rules on how the corporation should be run (including how the top managers in the corporation are compensated), sets policy, and monitors the performance of the company. The board of directors delegates most decisions that involve day-to-day running of the corporation to its management. The **chief executive officer (CEO)** is charged with running the corporation by instituting the rules and policies set by the board of directors.
- The most senior financial manager is the **chief financial officer (CFO)**, who often reports directly to the CEO.

Organizational chart of a typical corporation



The Financial Manager

- The financial management function is usually associated with a top officer of the firm, such as a vice president of finance or some other chief financial officer (CFO).

❑The process of planning and managing a firm's long-term investments is called **capital budgeting**. In capital budgeting, the financial manager tries to identify investment opportunities that are worth more to the firm than they cost to acquire.

- Regardless of the specific nature of an opportunity under consideration, financial managers must be concerned not only with how much cash they expect to receive, but also with when they expect to receive it and how likely they are to receive it. Evaluating the *size, timing,* and *risk* of future cash flows is the essence of capital budgeting.

- The second question for the financial manager concerns ways in which the firm obtains and manages the long-term financing it needs to support its long term investments. A firm's **capital structure** (or financial structure) is the specific mixture of long-term debt and equity the firm uses to finance its operations.

- In addition to deciding on the financing mix, the financial manager has to decide exactly how and where to raise the money. The expenses associated with raising long-term financing can be considerable, so different possibilities must be carefully evaluated.

- The term *working capital* refers to a firm's short-term assets, such as inventory, and its short-term liabilities, such as money owed to suppliers. **Managing the firm's working capital** is a day-to-day activity that ensures that the firm has sufficient resources to continue its operations and avoid costly interruptions. This involves a number of activities related to the firm's receipt and disbursement of cash.

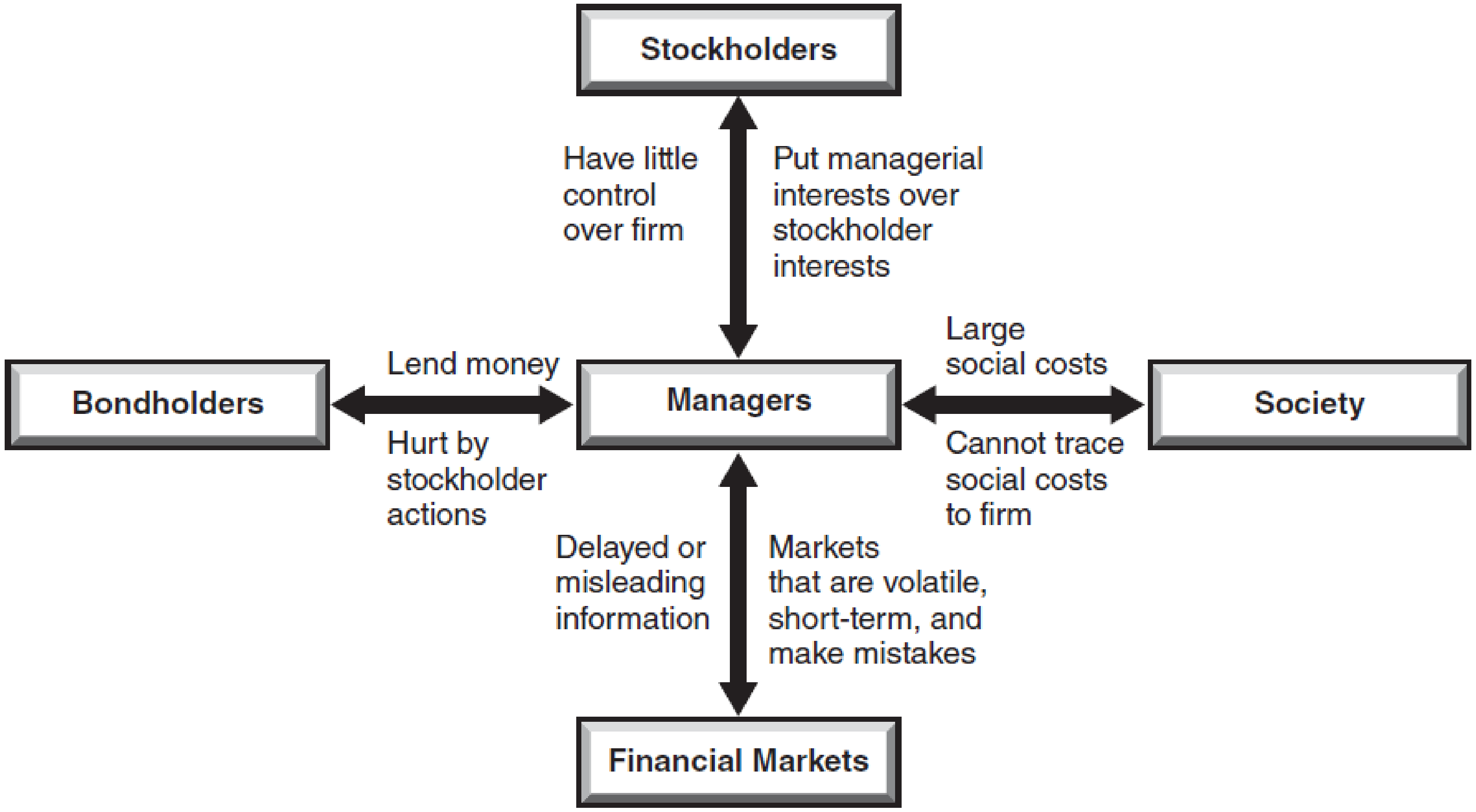
Goal of Financial Management

- Financial Management means planning, organizing, directing and controlling the financial activities such as procurement and utilization of funds of the enterprise. It means applying general management principles to financial resources of the enterprise.
- The financial manager in a corporation makes decisions for the stockholders of the firm. If we assume that stockholders buy stock because they seek to gain financially, it follows that the financial manager acts in the shareholders’ best interests by making **decisions that increase the value of the stock.**

Why Corporate Finance Focuses on Stock Price Maximization

- Stock prices are the **most observable of all measures** that can be used to judge the performance of a publicly traded firm. Unlike earnings or sales, which are updated once every quarter or once every year, stock prices are updated constantly to reflect new information coming out about the firm. Thus, managers receive instantaneous feedback from investors on every action that they take.
- **Stock prices will reflect the long-term effects of decisions** made by the firm. Unlike accounting measures like earnings or sales measures, such as market share, which look at the effects on current operations of decisions made by a firm, the value of a stock is a function of the long-term health and prospects of the firm.

Stock price maximization in the real world



Alternatives to stock price maximization

- **Maximize market share-**In the 1980s, Japanese firms inundated global markets with their products and focused their attention on increasing market share. Their apparent success at converting this market share to profits led other firms, including some in the United States, to also target market share as an objective.

- In concrete terms, this meant that investments that increased market share more were viewed more favorably than investments that increased them less. Proponents of this objective note that market share is observable and measurable like market price and does not require any of the assumptions about efficient financial markets that are needed to justify the stock price maximization objective.

- **Profit maximization-** There are objectives that focus on profitability rather than value. The rationale for them is that profits can be measured more easily than value and that higher profits translate into higher value in the long run.
  - There are at least two problems with these objectives. First, the emphasis on current profitability may result in short-term decisions that maximize profits now at the expense of long-term profits and value. Second, the notion that profits can be measured more precisely than value may be incorrect, given the judgment calls that accountants are often called on to make in assessing earnings and the leeway that they sometimes have to shift profits across periods.
- **Increasing the size of the firm** is also an alternative objective to maximize stockholder wealth. In the 1970s, for instance, firms like Gulf & Western and ITT, with strong CEOs at their helm, were built up through acquisitions into giant conglomerates. There seemed to be no strategic imperative to these acquisitions, other than the desire on the part of the CEOs to increase the sizes of their corporate empires.

Agency problems

- Agency theory suggests that the firm can be viewed as a nexus of contracts between resource holders. An agency relationship arises whenever one or more individuals, called principals, hire one or more other individuals, called agents, to perform some service and then delegate decision-making authority to the agents. **The primary agency relationships in business are those (1) between stockholders and managers and (2) between debtholders and stockholders**.
- These relationships are not necessarily harmonious; indeed, agency theory is concerned with so-called agency conflicts, or conflicts of interest between agents and principals.
- Agency theory in a formal sense originated in the early 1970s, but the concepts behind it have a long and varied history. Among the influences are property-rights theories, organization economics, contract law, and political philosophy, including the works of Locke and Hobbes.

Conflicts between Managers and Shareholders

- Agency theory suggests that, in imperfect labor and capital markets, managers will seek to maximize their own utility at the expense of corporate shareholders. Agents have the ability to operate in their own self-interest rather than in the best interests of the firm because of **asymmetric information** (e.g., managers know better than shareholders whether they are capable of meeting the shareholders' objectives) and **uncertainty** (e.g., myriad factors contribute to final outcomes, and it may not be evident whether the agent directly caused a given outcome, positive or negative).
- Evidence of self-interested managerial behavior includes the **consumption of some corporate resources** in the form of perquisites and the **avoidance of optimal risk positions**, whereby risk-averse managers bypass profitable opportunities in which the firm's shareholders would prefer they invest.

- In the majority of large publicly traded corporations, agency conflicts are potentially quite significant because the firm's managers generally own only a small percentage of the common stock. Therefore, shareholder wealth maximization could be subordinated to an assortment of other managerial goals.
- For instance, **managers may have a fundamental objective of maximizing the size of the firm**. By creating a large, rapidly growing firm, executives increase their own status, create more opportunities for lower- and middle-level managers and salaries, and enhance their job security because an unfriendly takeover is less likely. As a result, incumbent management may pursue diversification at the expense of the shareholders who can easily diversify their individual portfolios simply by buying shares in other companies.

Conflict Resolution

- One way to reduce shareholder-manager conflict is to **provide managers with equity stakes** in the firms they manage, either by providing them with stock or warrants/options on the stock. If this is done, the benefits that accrue to management from higher stock prices may provide an inducement to maximize stock prices.
- **More effective boards-** reduced size, fewer insiders
- The following mechanisms encourage managers to act in shareholders' interests: (1) performance-based incentive plans, (2) direct intervention by shareholders, (3) the threat of firing, and (4) the threat of takeover.

- Most publicly traded firms now employ **performance shares**, which are shares of stock given to executives on the basis of performances as defined by financial measures such as earnings per share, return on assets, return on equity, and stock price changes. If corporate performance is above the performance targets, the firm's managers earn more shares.
- The institutional investors have the potential to exert considerable influence over a firm's operations in two primary ways. First, they can meet with a firm's management and offer suggestions regarding the firm's operations. Second, institutional shareholders can **sponsor a proposal to be voted on at the annual stockholders' meeting**, even if the proposal is opposed by management. Although such shareholder-sponsored proposals are nonbinding and involve issues outside day-to-day operations, the results of these votes clearly influence management opinion.

- In the past, the likelihood of a large company's **management being ousted by its stockholders** was so remote that it posed little threat. This was true because the ownership of most firms was so widely distributed, and management's control over the voting mechanism so strong, that it was almost impossible for dissident stockholders to obtain the necessary votes required to remove the managers. In recent years, however, the chief executive officers at American Express Co., General Motors Corp., IBM, and Kmart have all resigned in the midst of institutional opposition and speculation that their departures were associated with their companies' poor operating performance.
- **Hostile takeovers**, which occur when management does not wish to sell the firm, are most likely to develop when a firm's stock is undervalued relative to its potential because of inadequate management. In a hostile takeover, the senior managers of the acquired firm are typically dismissed, and those who are retained lose the independence they had prior to the acquisition. The threat of a hostile takeover disciplines managerial behavior and induces managers to attempt to maximize shareholder value.

Conflict between Stockholders versus bondholders

- In addition to the agency conflict between stockholders and managers, there is a second class of agency conflicts—those between creditors and stockholders.
- The shareholders, acting through management, have an incentive to induce the firm to take on **new projects that have a greater risk than was anticipated by the firm's creditors**. The increased risk will raise the required rate of return on the firm's debt, which in turn will cause the value of the outstanding bonds to fall. If the risky capital investment project is successful, all of the benefits will go to the firm's stockholders, because the bondholders' returns are fixed at the original low-risk rate.
- On the other hand, shareholders may be **reluctant to finance beneficial investment projects**. Shareholders of firms undergoing financial distress are unwilling to raise additional funds to finance positive net present value projects because these actions will benefit bondholders more than shareholders by providing additional security for the creditors' claims.

- Managers can also **increase the firm's level of debt**, without altering its assets, in an effort to leverage up stockholders' *return on equity*. If the old debt is not senior to the newly issued debt, its value will decrease, because a larger number of creditors will have claims against the firm's cash flows and assets. Both the riskier assets and the increased leverage transactions have the effect of transferring wealth from the firm's bondholders to the stockholders.

Effect of covenants

- The most direct way for bondholders and lenders to protect themselves is to write in covenants in their bond agreements specifically prohibiting or restricting actions that may make them worse off.

- ***Restrict the firm's investment policy.*** Investing in riskier businesses than anticipated can lead to a transfer of wealth from lenders to stockholders. Some debt agreements put restrictions on where firms can invest and how much risk they can take on in their new investments, specifically to provide lenders with the power to veto actions that are not in their best interests.
- ***Restrict dividend policy.*** In general, increases in dividends increase stock prices while decreasing bond prices because they reduce the cash available to the firm to meet debt payments. Many debt agreements restrict dividend policy by tying dividend payments to earnings.
- ***Restrict additional leverage.*** Some debt agreements require firms to get the consent of existing lenders before borrowing more money. This is done to protect the interests of existing secured lenders.

Gross and Net Income

- Gross profit or gross income is a company's profits earned after subtracting the costs of producing and selling its products—called the cost of goods sold (COGS). Gross profit provides insight into how efficient a company is at managing its production costs, such as labor and supplies, to produce income from the sale of its goods and services. The gross profit for a company is calculated by subtracting the cost of goods sold for the accounting period from its total revenue. Typically, gross profit doesn't include fixed costs, which are the costs incurred regardless of the production output. For example, fixed costs might include salaries for the corporate office, rent, and insurance.
- Net income (NI), also called net earnings or profit, is calculated as sales(revenue) minus cost of goods sold, selling, general and administrative expenses, operating expenses, depreciation, interest, taxes, and other expenses.

Return on Equity

- Return on equity (ROE) is a measure of financial performance calculated by dividing net income by shareholders' equity. Because shareholders' equity is equal to a company’s assets minus its debt, ROE is considered the return on net assets.
- ROE is considered a gauge of a corporation's profitability and how efficient it is in generating profits. The higher the ROE, the more efficient a company's management is at generating income and growth from its equity financing.

ROE= Net income/ Average shareholder’s equity

- **To estimate a company’s future growth rate, multiply the ROE by the company’s retention ratio**. The retention ratio is the percentage of net income that is retained or reinvested by the company to fund future growth.
- The retention ratio is typically higher for growth companies that are experiencing rapid increases in revenues and profits. A growth company would prefer to plow earnings back into its business if it believes that it can reward its shareholders by increasing revenues and profits at a faster pace than shareholders could achieve by investing their dividend receipts.
- The retention rate for technology companies in a relatively early stage of development is generally 100%, as they seldom pay dividends. But in mature sectors such as utilities and telecommunications, where investors expect a reasonable dividend, the retention ratio is typically quite low because of the high dividend payout ratio.

Retention ratio= (Net income- Dividends Distributed)/Net Income