

Master of Financial Technology

Finance Concepts



The background features a series of vertical panels with rounded ends. The first panel on the left is dark. The subsequent panels are lighter, with a warm, golden-brown glow. Overlaid on these panels are several white line-art icons: a graduation cap, a laptop with a play button, a target with an arrow, an open book, a magnifying glass, and a group of people. The overall aesthetic is professional and academic.

Foundations of Financial Management

Chapter 3



Chapter 03

Intended Learning Outcomes

After reading this chapter, you should be able to:

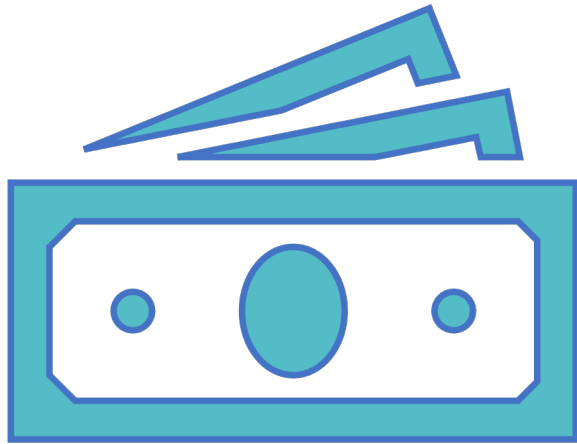
1. Understand the basic principles of finance, their Five Principles That Form the importance, and the importance of ethics and trust,
2. Describe the role of finance in business,
3. Distinguish between the different legal forms of business, and
4. Identify the goal of the firm.

1. The Five Principles of Finance

The Five Principles of Finance

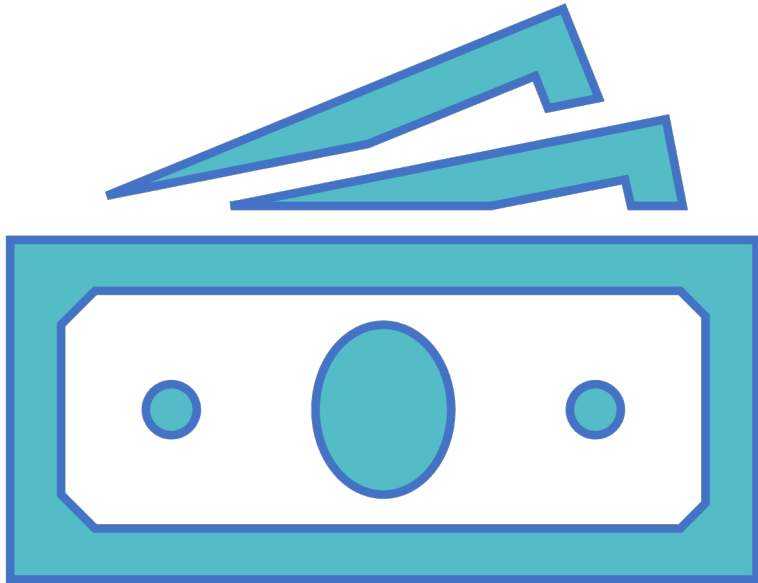


Principle 1: Cash Flow Is What Matters



- A company's **cash flows** represent money that can be spent or received.
- Consequently, it is **cash flow, not profits**, that determines the value of a business.
- For this reason, when we analyze the consequences of a managerial decision, we focus on the resulting cash flows, not profits.
- we should always look at the **incremental cash flow** to the company is the difference between the cash flows the company will produce both with and without the investment it's thinking about making.

Cash Inflows vs. Cash Outflows

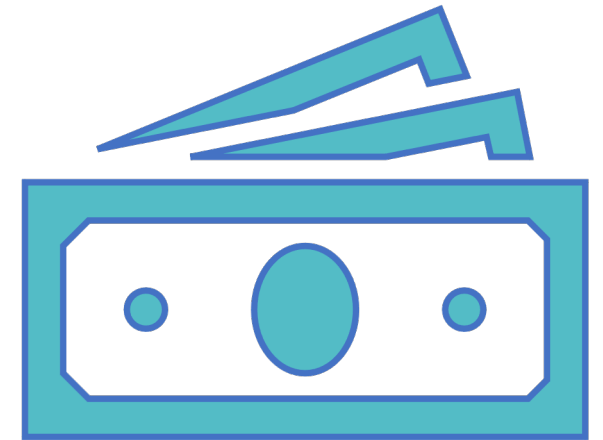


Principle 2: Money Has a Time Value

- Perhaps the most fundamental principle of finance is that **money has a “time” value.**
- Very simply, a dollar received today is more valuable than a dollar received one year from now because we can invest the dollar, we have today to earn **interest** so that at the end of one year we will have more than one dollar.
- So, if you loan money to your brother at no interest, money that otherwise would have been loaned to a friend for 8 percent interest (who is equally likely to repay you), then the opportunity cost of making the loan to your brother is 8 percent.
- ***Without recognizing the existence of the time value of money, it is impossible to evaluate projects with future benefits and costs in a meaningful way.***

Principle 3: Risk Requires a Reward

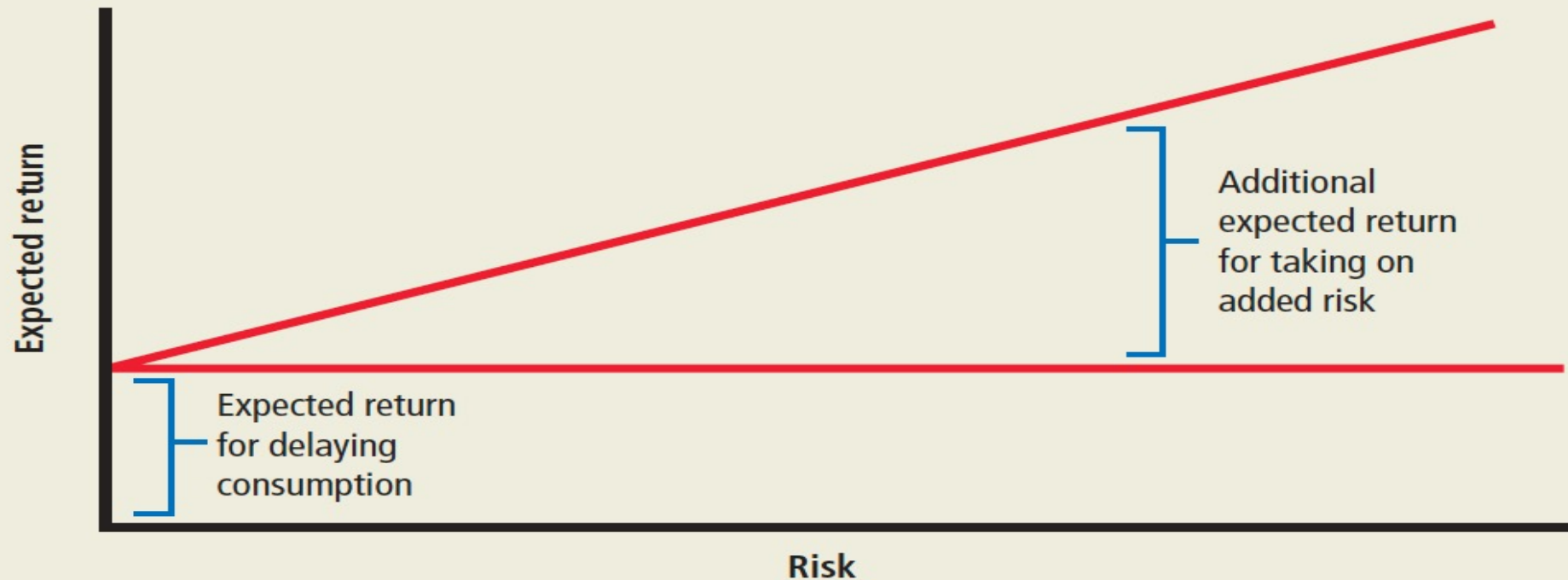
- Even the unexperienced investor knows there are an unlimited number of investment alternatives to consider. But without exception, investors will not invest if they do not expect to receive a return on their investment.
- Investors will want a return that satisfies two requirements:
 - **A return for delaying consumption.** Why would anyone make an investment that would not at least pay them something for delaying consumption? They won't—even if there is no risk.
 - **An additional return for taking on risk.** Investors generally don't like risk. Thus, risky investments are less attractive—unless they offer the prospect of higher returns. That said, the more unsure people are about how an investment will perform, the higher the return they will demand for making that investment.



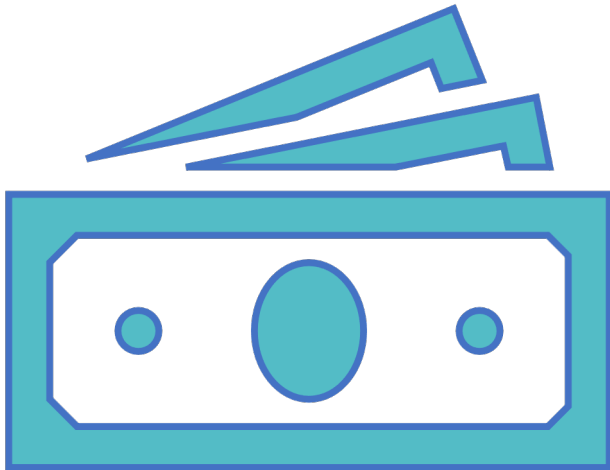


Principle 3: Risk Requires a Reward

FIGURE 1-1 The Risk–Return Trade-off



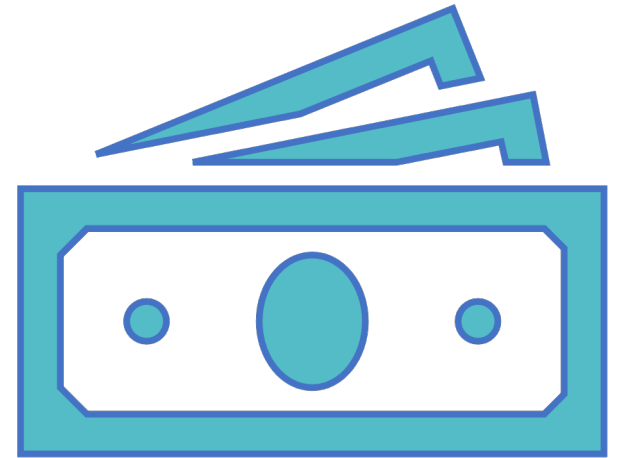
Principle 4: Market Prices Are Generally Right



- To understand how securities such as bonds and stocks are valued or priced in the financial markets, it is necessary to have an understanding of the concept of an **efficient market**.
- **An efficient market is one where the prices of the assets traded in that market fully reflect all available information at any instant in time.**
- The efficiency of the market depends on the speed with which newly released information is impounded into prices. Specifically, an efficient stock market is characterized by a large number of profit-driven individuals who act very quickly by buying (or selling) shares of stock in response to the release of new information.
- **The key learning point here is the following:** Stock market prices are a useful barometer of the value of a firm. Specifically, managers can expect their company's share prices to respond quickly to investors' assessment of their decisions. If investors on the whole agree that the decision is a good one that creates value, then they will push up the price of the firm's stock to reflect that added value. On the other hand, if investors feel that a decision is bad for share prices, then the firm's share value will be driven down.
- **Unfortunately, this principle doesn't always work perfectly in the real world.**

Principle 5: Conflicts of Interest Cause Agency Problems

- Conflicts of interest lead to what are referred to by economists as an **agency cost or agency problem**. That is, managers are the agents of the firm's stockholders (the owners) and if the agents do not act in the best interests of their principal, this leads to an agency cost.
- Although the goal of the firm is to maximize shareholder value, in reality the agency problem may interfere with the implementation of this goal.
- The **agency problem** results from the separation of management and the ownership of the firm.



Avoiding Financial Crisis—Back to the Principles

- Four significant economic events that have occurred during the last decade all point to the importance of keeping our eye closely affixed to the five principles of finance: the dot.com bubble; the accounting scandals headlined by Enron, WorldCom, and Bernie Madoff; the housing bubble; and, finally, the recent economic crisis. Specifically, the problems that firms encounter in times of crisis are often brought on by, and made worse as a result of, not paying close attention to the foundational principles of finance.
- To illustrate, consider the following:
 - **Forgetting Principle 1: Cash Flow Is What Matters** (Focusing on earnings instead of cash flow). The financial fraud committed by Bernie Madoff, WorldCom, and others at the turn of the 21st century was a direct result of managerial efforts to manage the firm's reported earnings to the detriment of the firm's cash flows. The belief in the importance of current period earnings as the most critical determinant of the market valuation of the firm's shares led some firms to sacrifice future cash flows in order to maintain the illusion of high and growing earnings.
 - **Forgetting Principle 2: Money Has a Time Value** (Focusing on the short run). When trying to put in place a system that would align the interests of managers and shareholders, many firms tied managerial compensation to short-run performance. Consequently, the focus shifted in many firms from what was best in the long run to what was best in the short run.

Avoiding Financial Crisis—Back to the Principles

- **Forgetting Principle 3: Risk Requires a Reward** (Excessive risk taking due to underestimation of risk). Relying on historical evidence, managers often underestimated the real risks that their decisions entailed. This underestimation of the underlying riskiness of their decisions led managers to borrow excessively. This excessive use of borrowed money (or financial leverage) led to financial disaster and bankruptcy for many firms as the economy slipped into recession. Moreover, the financial crisis was exacerbated by the fact that many times companies simply didn't understand how much risk they were taking on. For example, AIG (AIG), the giant insurance company that the government bailed out, was involved in investments whose value is based on the price of oil in 50 years. Let's face it, no one knows what the price of oil will be in a half a century—being involved in this type of investment is blind risk.
- **Forgetting Principle 4: Market Prices Are Generally Right** (Ignoring the efficiency of financial markets). Huge numbers of so-called hedge funds sprang up over the last decade and entered into investment strategies that presupposed that security prices could be predicted. Many of these same firms borrowed heavily in an effort to boost their returns and later discovered that security markets were a lot smarter than they thought and consequently realized huge losses on their highly leveraged portfolios.
- **Forgetting Principle 5: Conflicts of Interest Cause Agency Problems** (Executive compensation is out of control). Executive compensation in the United States is dominated by performance-based compensation in the form of stock options and grants. The use of these forms of compensation over the last decade in the face of one of the longest bull markets in history has resulted in tremendous growth in executive compensation. The motivations behind these methods of compensation are primarily tied to a desire to make managers behave like stockholders (owners). Unfortunately, this practice has resulted in pay for nonperformance in many cases and a feeling among the general public that executive compensation is excessive. We are reminded again that solving the principal-agent problem is not easy to do, but it has to be done!

Review Questions – True or False

1. When making financial decisions, managers should always look at incremental cash flows.
2. The root cause of agency problems is conflicts of interest.
3. Investors will be indifferent between two investments if both investments have the same expected return.
4. Giving the company's CEO stock options as part of his or her compensation package is an example of an agency cost.
5. The risk-return trade-off implies that the return on a riskless asset must be zero.
6. An efficient market is one where the prices of the assets traded in that market fully reflect all available information at any instant in time.

Review Questions - MCQs

7. The principle of risk-return trade-off means that

- A) higher risk investments must earn higher returns.
- B) an investor who takes more risk will earn a higher return.
- C) a rational investor will only take on higher risk if he expects a higher return.
- D) an investor who bought stock in a small corporation five years ago has more money than an investor who bought U.S. Treasury bonds five years ago.

8. All of the following statements about agency problems are true EXCEPT

- A) Agency problems interfere with the goal of maximizing shareholder value.
- B) Agency costs are paid by the managers who do not act in the shareholders' best interest.
- C) Agency problems result from the separation of management and the ownership of a firm.
- D) The root cause of agency problems is conflicts of interest.

9. To measure value, the concept of time value of money is used

- A) to determine the interest rate paid on corporate debt.
- B) to bring the future benefits and costs of a project, measured by its expected profits, back to the present.
- C) to bring the future benefits and costs of a project, measured by its cash flows, back to the present.
- D) to ensure that expected future profits exceed current profits today.

Review Question - Solution

1.True

2.True

3.False

4.True

5.False

6.True

7. C

8. B

9.C

2. The Role of Finance in Business

The Role of Finance in Business

- Finance is the study of how people and businesses evaluate investments and raise capital to fund them.
- Thus, there are three basic types of issues that are addressed by the study of finance:
 1. What long-term investments should the firm undertake? This area of finance is generally referred to as **capital budgeting**.
 2. How should the firm raise money to fund these investments? The firm's funding choices are generally referred to as **capital structure** decisions.
 3. How can the firm best manage its cash flows as they arise in its day-to-day operations? This area of finance is generally referred to as **working capital management**.

Why Study Finance?

- Even if you're not planning a career in finance, a working knowledge of finance will take you far in both your personal and professional life.
- Those interested in management will need to study topics like strategic planning, personnel, organizational behavior, and human relations, all of which involve spending money today in the hopes of generating more money in the future which is related to finance
- Indeed, if you **pursue a career in management** information systems or accounting, the finance managers are likely to be your most important clients.
- For the student with **entrepreneurial aspirations**, an understanding of finance is essential—after all, if you can't manage your finances, you won't be in business very long.
- Finally, an understanding of finance is important to you as **an individual**.

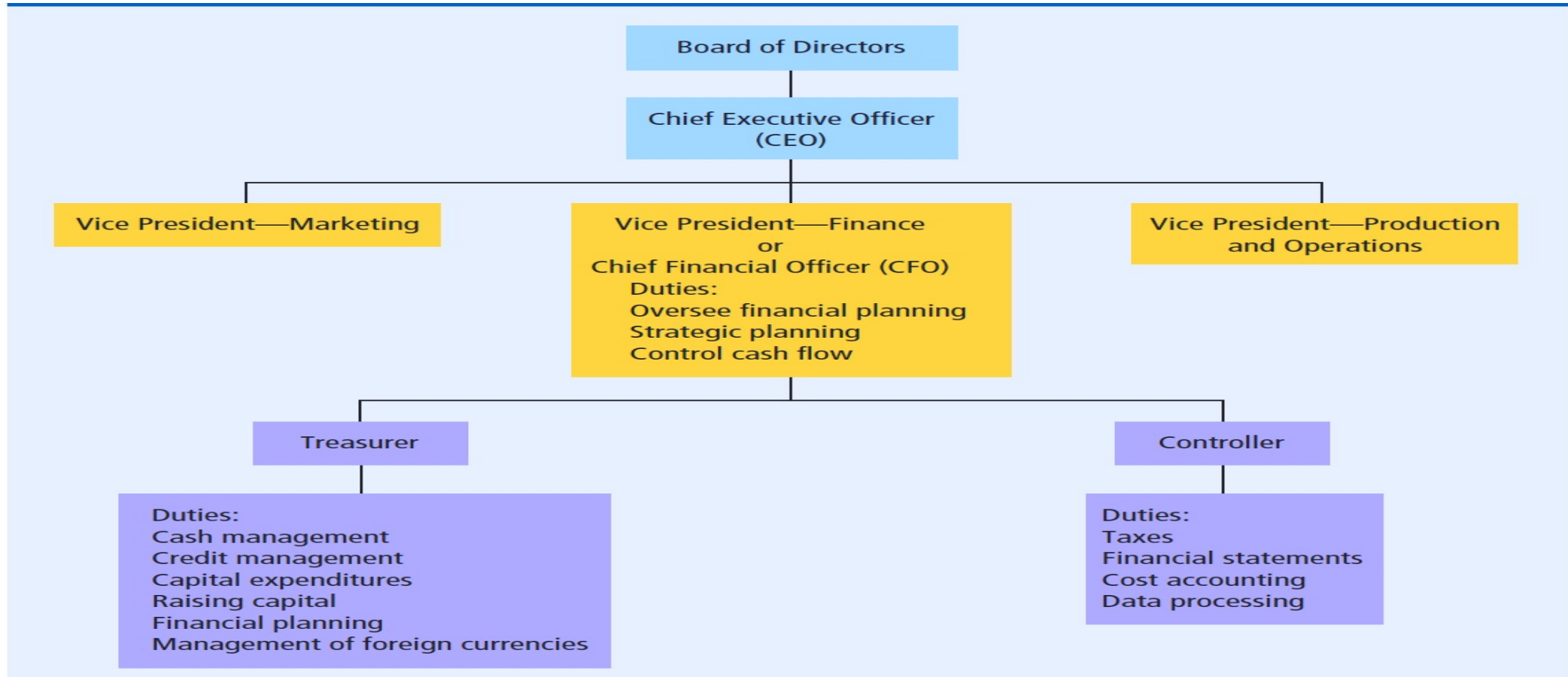


The Role of the Financial Manager



- A firm can assume many different organizational structures. The vice president for finance, also called **the chief financial officer (CFO)**, serves under the firm's chief executive officer (CEO) and is responsible for overseeing financial planning, strategic planning, and controlling the firm's cash flow.
- Typically, a **treasurer and controller** serve under the CFO. In a smaller firm, the same person may fill both roles, with just one office handling all the duties.
- **The treasurer** generally handles the firm's financial activities, including cash and credit management, making capital expenditure decisions, raising funds, financial planning, and managing any foreign currency received by the firm.
- **The controller** is responsible for managing the firm's accounting duties, including producing financial statements, cost accounting, paying taxes, and gathering and monitoring the data necessary to oversee the firm's financial wellbeing.

The Role of the Financial Manager



Review Questions

10. Determining how a firm should raise money to fund its long-term investments is referred to as capital structure decisions.

11. A corporate treasurer is typically responsible for each of the following duties EXCEPT

- A) cash management.
- B) credit management.
- C) capital expenditures.
- D) cost accounting.

12. The three basic types of issues addressed by the study of finance are

- A) capital budgeting, capital structure decisions, and working capital management.
- B) capital budgeting, working capital management, and investment analysis.
- C) capital structure decisions, working capital management, and sustained profitability.
- D) capital budgeting, investment analysis, and cash management.

ReviewQuestion Solution

10. True

11. D

12. A

3. The Legal Forms of Business

The Legal Forms of Business

- The legal forms of business organization fall into three categories:
 - **Sole proprietorship,**
 - **Partnership, and**
 - **Corporation.**
- As the firm grows, the advantages of the corporation begin to dominate, as a result, most large firms take on the corporate form.

Sole Proprietorship

A sole proprietorship is a business owned by an **individual**.

The owner retains the **title** to the business's assets and is **responsible**, generally **without limitation**, for the liabilities incurred.

The proprietor is entitled to the profits from the business but must also absorb any losses.

Termination of the sole proprietorship occurs on the owner's death or by the owner's choice.

Briefly stated, the sole proprietorship is for all practical purposes the absence of any formal legal business structure.



General Partnerships



- The primary difference between a partnership and a sole proprietorship is that the partnership has more than one owner.
- A partnership is an association of two or more persons coming together as co-owners for the purpose of operating a business for profit.
- **Partnerships fall into two types:**
 - (1) General partnerships and
 - (2) Limited partnerships.

General Partnerships

In a general partnership each partner is fully responsible for the liabilities incurred by the partnership.

Thus, any partner's faulty conduct, even having the appearance of relating to the firm's business, renders the remaining partners liable as well.

The relationship among partners is dictated entirely by the partnership agreement, which may be an oral commitment or a formal document.

Limited Partnerships



Limited Partnerships permit one or more of the partners to have limited liability, restricted to the amount of capital invested in the partnership.



Several conditions must be met to qualify as a limited partner.

First, at least one general partner must have unlimited liability.

Second, the names of the limited partners may not appear in the name of the firm.

Third, the limited partners may not participate in the management of the business.



Thus, a limited partnership provides limited liability for a partner who is purely an investor.

Corporations

- The legal definition of a corporation as “**an artificial being, invisible, intangible, and existing only in the contemplation of law.**”
- This entity legally functions separate and apart from its owners.
- As such, the corporation can individually sue and be sued and purchase, sell, or own property, and its personnel are subject to criminal punishment for crimes.
- However, despite this legal separation, the corporation is composed of owners who dictate its direction and policies.
- The owners elect a board of directors, whose members in turn select individuals to serve as corporate officers, including the company’s president, vice president, secretary, and treasurer.



Corporations



Ownership is reflected in common stock certificates, each designating the number of shares owned by its holder.



The number of shares owned relative to the total number of shares outstanding determines the stockholder's proportionate ownership in the business. Because the shares are transferable, ownership in a corporation may be changed by a shareholder simply remitting the shares to a new shareholder.



The shareholder's liability is confined to the amount of the investment in the company, thereby preventing creditors from confiscating stockholders' personal assets in settlement of unresolved claims. This is an extremely important advantage of a corporation.



Finally, the life of a corporation is not dependent on the status of the investors. The death or withdrawal of an investor does not affect the continuity of the corporation. Its managers continue to run the corporation when stock is sold or when it is passed on through inheritance.

Organizational Form and Taxes: The Double Taxation on Dividends

- Historically, one of the drawbacks of the corporate form was the **double taxation of dividends**.
- This occurs when a corporation earns a profit, **pays taxes on those profits** (the first taxation of earnings), and pays some of those profits back to the shareholders in the form of dividends, and **then the shareholders pay personal income taxes on those dividends** (the second taxation of those earnings).
- This double taxation of earnings does not take place with proprietorships and partnerships.
- Needless to say, that had been a major disadvantage of corporations.

Which Organizational Form Should Be Chosen?



Which Organizational Form Should Be Chosen?

- Whereas each business form seems to have some advantages over the others, the advantages of the corporation begin to dominate as the firm grows and needs access to the capital markets to raise funds.
- Because of the limited liability, the **ease of transferring ownership** through the sale of common shares, and the flexibility in dividing the shares, the corporation is the ideal business entity in terms of attracting new capital.
- In contrast, the **unlimited liabilities** of the sole proprietorship and the general partnership are deterrents to raising equity capital.
- Between the extremes, the limited partnership does provide limited liability for limited partners, which has a tendency to attract wealthy investors.
- However, the impracticality of having a large number of partners and the restricted marketability of an interest in a partnership prevent this form of organization from competing effectively with the corporation.
- Therefore, when developing our decision models, we assume we are dealing with the corporate form and corporate tax codes.



Review Questions

13. The best form of business entity to attract new capital is the sole proprietorship because investors only need to deal with one owner.

14. Its ability to raise capital by selling stock makes the corporation the best form of organization in terms of raising capital.

15. There is no legal distinction made between the assets of the business and the personal assets of any of the owners in the limited partnership.

16. In a limited partnership at least one general partner must exist; that general partner has unlimited liability.

Review Questions

17. A limited partnership provides limited liability to

- A) all general partners.
- B) only limited partners responsible for day-to-day management of the firm.
- C) only to limited partners who do not participate in the management of the business.
- D) all partners.

18. Joe is deciding whether or not to invest \$10,000 in a business that has pending lawsuits against it. If Joe invests and the business loses the lawsuits, the most Joe can lose is

- A) \$10,000 if Joe is a general partner.
- B) \$10,000 if Joe is a sole proprietor.
- C) \$10,000 if Joe is a limited partner.
- D) \$10,000 plus his share of the lawsuits if Joe is a limited partner.

Review Questions

19. Which of the following is an advantage of the sole proprietorship?

- A) limited liability for its owners
- B) double taxation for its owners
- C) no significant legal requirements for starting the business
- D) easily transferred ownership

20. Which of the following is NOT true for a limited partnership?

- A) It has limited liability for its owners.
- B) One general partner must exist who has unlimited liability.
- C) Only the name of general partners can appear in the name of the firm.
- D) Limited partners may sell their interest in the company.

Review Questions

21. Which of the statements below are true?

- A) The sole proprietorship and the general partnership both feature unlimited liability.
- B) A corporation is the business form that is typically the most complicated (legally) to establish.
- C) The corporation and the limited partnership both provide at least some owners with limited liability.
- D) all of the above

22. Which of the following forms of business organization has the greatest ability to attract new capital?

- A) sole proprietorship
- B) corporation
- C) general partnership
- D) limited partnership

ReviewQuestion Solution

13. False

14. True

15. False

16. True

17. C

18. C

19. C

20. A

21. D

22. B

4. The Goal of the Firm

The Goal of the Firm

- The fundamental goal of a business is to create value for the company's owners (shareholders). This goal is frequently stated as “**maximization of shareholder wealth**” as Shareholders are the legal owners of the firm.
- Thus, the goal of the financial manager is to create wealth for the shareholders, by making decisions that will maximize the price of the existing common stock.
- Not only does this goal directly benefit the shareholders of the company but it also provides benefits to society as scarce resources are directed to their most productive use by businesses competing to create wealth.
- We have chosen maximization of shareholder wealth—that is, **maximizing the market value of the existing shareholders' common stock**—because all financial decisions ultimately affect the firm's stock price.
- **In effect, under this goal, good decisions are those that create wealth for the shareholder.**



The Goal of the Firm

Contd'

Investors react to poor investment or dividend decisions by causing the total value of the firm's stock to fall, and they react to good decisions by pushing up the price of the stock.

Obviously, there are some **serious practical problems in using changes in the firm's stock to evaluate financial decisions.**

Accordingly, what we do focus on is the effect that our decision should have on the stock price if everything else were held constant.

The market price of the firm's stock reflects the value of the firm as seen by its owners and takes into account the complexities and complications of the real-world risk.

Review Questions

23. Each financial decision made by a corporate manager can be evaluated by its direct impact on the corporation's stock price.

24. The fundamental goal of a business is to maximize the retained earnings available to the corporation's shareholders.

25. The goal of the firm's financial managers should be the maximization of the total value of the firm's stock.

26. Only a firm's financial decisions affect its stock prices.

Review Questions

27. Shareholder wealth maximization means maximizing the price of the existing common stock.

28. It is important to evaluate a corporate manager's financial decision by measuring the effect the decision *should have* on the corporation's stock price if everything else were held constant.

29. The primary goal of a publicly owned corporation is to _____.

- A) maximize dividends per share
- B) maximize shareholder wealth
- C) maximize earnings per share after taxes
- D) minimize shareholder risk

30. Which of the following goals of the firm are equivalent to the maximization of shareholder wealth?

- A) profit maximization
- B) risk minimization
- C) maximization of the total market value of the firm's common stock
- D) none of the above

ReviewQuestion Solution

23. False

24. False

25. True

26. False

27. True

28. True

29. B

30. C

