Online Instructor's Manual

By

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For

Fundamentals of Investing

Twelfth Edition

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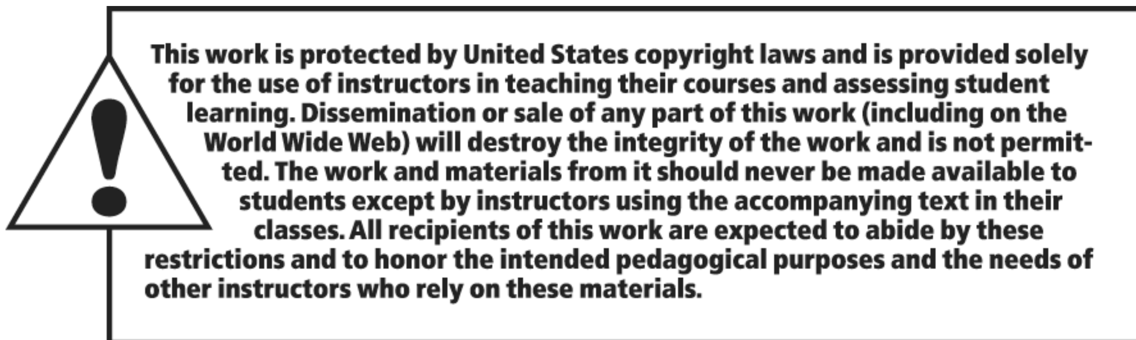
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Contents

Chapter 1	The Investment Environment	1
Chapter 2	Securities Markets and Transactions	16
Chapter 3	Investment Information and Securities Transactions	34
Chapter 4	Return and Risk	50
Appendix 4A	The Time Value of Money	69
Chapter 5	Modern Portfolio Concepts	78
Chapter 6	Common Stocks	101
Chapter 7	Analyzing Common Stocks	119
Chapter 8	Stock Valuation	141
Chapter 9	Market Efficiency and Behavioral Finance	159
Chapter 10	Fixed-Income Securities	178
Chapter 11	Bond Valuation	197
Chapter 12	Mutual Funds and Exchange-Traded Funds	220
Chapter 13	Managing Your Own Portfolio	239
Chapter 14	Options: Puts and Calls	259
Chapter 15	Futures Markets and Securities	279
Web Chapter 16	Investing in Preferred Stock	293
Web Chapter 17	Tax-Advantaged Investments	301
Web Chapter 18	Real Estate and Other Tangible Investments	316

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Chapter 1
The Investment Environment

■ Outline

Learning Goals

I. Investments and the Investment Process

- A. Attributes of Investments
  1. Securities or Property
  2. Direct or Indirect
  3. Debt, Equity, or Derivative Securities
  4. Low- or High-Risk Investments
  5. Short- or Long-Term Investments
  6. Domestic or Foreign
- B. The Structure of the Investment Process
  1. Suppliers and Demanders of Funds
     - a. Government
     - b. Business
     - c. Individuals
  2. Types of Investors

Concepts in Review

II. Types of Investments

- A. Short-Term Investments
- B. Common Stock
- C. Fixed-Income Securities
  1. Bonds
  2. Convertible Securities
  3. Preferred Stock
- D. Mutual Funds
- E. Exchange-Traded Funds
- F. Hedge Funds

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G. Derivative Securities
   1. Options
   2. Futures

H. Other Popular Investments

Concepts in Review

III. Making Investment Plans

A. Steps in Investing
   1. Step 1: Meet Investment Prerequisites
   2. Step 2: Establish Investment Goals
   3. Step 3: Adopt an Investment Plan
   4. Step 4: Evaluate Investments
   5. Step 5: Select Suitable Investments
   6. Step 6: Construct a Diversified Portfolio
   7. Step 7: Manage the Portfolio

B. Considering Personal Taxes
   1. Basic Sources of Taxation
   2. Types of Income
      a. Ordinary Income
      b. Capital Gains and Losses
   3. Investments and Taxes
   4. Tax-Advantaged Retirement Savings Plans

C. Investing over the Life Cycle

D. Investments and the Business Cycle

Concepts in Review

IV. Meeting Liquidity Needs with Short-Term Investments

A. Role of Short-Term Investments
   1. Interest on Short-Term Investments
   2. Risk Characteristics
   3. Advantages and Disadvantages of Short-Term Investments

B. Common Short-Term Investments

C. Investment Suitability

Concepts in Review

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V. Careers in Finance

A. Commercial Banking

B. Corporate Finance

C. Financial Planning

D. Insurance

E. Investment Banking

F. Investment Management

Concepts in Review

Summary

Key Terms

Discussion Questions

Problems

Case Problems

1.1 Investments or Golf?

1.2 Preparing Carolyn Bowen's Investment Plan

Excel with Spreadsheets

■ Key Concepts

1. The meaning of the term *investment* and the implications it has for individual investors
2. Review the factors used to differentiate between different types of investments
3. The importance of and basic steps involved in the investment process
4. Popular types of investment vehicles, including short-term vehicles, common stock, mutual funds and exchange-traded funds, fixed-income securities such as bonds, preferred stock, and convertibles
5. Derivative securities such as options and futures
6. Other popular investments such as real estate, tangibles, and tax-advantaged investments
7. Investment goals including income, major expenditures, retirement, and sheltering income from taxes; the latter includes analysis of tax-advantaged retirement vehicles
8. Building a diversified portfolio consistent with investment goals
9. Sources of taxation, types of taxable income, and the effect of taxes on the investor
10. Developing an investment program that considers differing economic environments and the life cycle
11. The use of short-term securities in meeting liquidity needs

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12. The merits and suitability of various popular short-term investments, including deposit accounts and money market securities

■ Overview

This chapter provides an overview of the scope and content of the text.

1. The term *investment* is defined, and the alternative investment opportunities available to investors are classified by types.

2. The structure of the investment process is examined. This section explains how the marketplace brings together suppliers and demanders of investment funds.

3. The key participants in the investment process—government, business, and individuals—are described, as are institutional and individual investors.

4. *Returns* are defined as rewards for investing. Returns to an investor take two forms—current income and increased value of the investment over time. In this section, the instructor need only define return, since there will be another opportunity to develop the concept of return in Chapter 4; also, providing information about recent investment returns always engages students' attention.

5. Next, the following investment vehicles available to individual investors are discussed: short-term vehicles, common stock, fixed-income securities, mutual funds, exchange-traded funds, hedge funds, real estate, tangibles, tax-advantaged investments, and options and futures. The text describes their risk-return characteristics in a general way. The instructor may want to expand on the advantages and disadvantages of investing in each, although they will be treated in greater detail in subsequent chapters. It is vital for any investor to establish investment goals that are consistent with his or her overall financial objectives.

6. Once the investment goals have been well specified, the investor can adopt an investment plan consistent with these goals, select suitable investments, and build a diversified portfolio and manage it.

7. Personal taxes are discussed in terms of types of income and tax rates. The investment process is affected by current tax laws. Examples of tax shelters, especially tax-advantaged retirement vehicles, and tax planning are provided.

8. Once investment goals are established, it is important to understand how the investment process is affected by different economic environments. The chapter talks about types of investments such as stocks, bonds, and tangibles as they are affected by business cycles, interest rates, and inflation.

9. Liquidity is defined, and short-term securities that can be used to meet liquidity requirements are described. The discussion includes a look at short-term interest rates and the risk characteristics of various short-term securities.

10. The next section covers the various types of short-term vehicles available to today's investor. The text provides enough detail about everything from passbook accounts to money market funds to commercial paper that students should get a good grasp of the differences between the vehicles. Information on current rates brings realism into the classroom and enhances student perception of the lecturer as a knowledgeable instructor.

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■ Answers to Concepts in Review

1. An *investment* is any asset into which funds can be placed with the expectation of preserving or increasing value and earning a positive rate of return. An investment can be a security or a property. Individuals invest because an investment has the *potential* to preserve or increase value and to earn income. It is important to stress that this does *not* imply that an investment will in fact preserve value or earn income. Bad investments do exist.

2. (a) Securities and property are simply two classes of investments. *Securities* are investments, commonly evidenced by certificates, that represent a legal claim. For example, a bond represents a legal claim on debt, and a stock represents a proportionate ownership in a firm. An option, on the other hand, represents the legal right to either buy or sell an asset at a predetermined price within a specified time period. *Property* constitutes investments in either real property (land and buildings) or tangible personal property (Rembrandt paintings, Ming vases, or antique cars).

   (b) With a *direct investment*, an individual acquires a direct claim on a security or property. For example, an investment in one share of IBM stock directly provides the stockholder a proportionate ownership in IBM. An *indirect investment* provides an indirect claim on a security or property. For example, if you bought one share of Fidelity Growth Fund (a mutual fund), you are in effect buying a portion of a portfolio of securities owned by the fund. Thus, you will have a claim on a fraction of an entire portfolio of securities.

   (c) An investment in *debt* represents funds loaned in exchange for the receipt of interest income and repayment of the loan at a given future date. The bond, a common debt instrument, pays specified interest over a specified time period, then repays the face value of the loan. (Chapters 10 and 11 cover bonds in detail.) An *equity investment* provides an investor an ongoing fractional ownership interest in a firm. The most common example is an investment in a company's common stock. We will study equity instruments in greater detail in Chapters 6 through 8. *Derivative securities* are securities derived from debt or equity securities and structured to exhibit characteristics different from the underlying securities. *Options* are derivative securities that allow an investor to sell or buy another security or asset at a specific price over a given time period. For example, an investor might purchase an option to buy Company X stock for $50 within nine months.

   (d) *Short-term investments* typically mature within one year while *long-term investments* have longer maturities, including common stock, which has no maturity at all. However, long-term investments can be used to satisfy short-term financial goals.

3. In finance, *risk* refers to the chance that the return from an investment will differ from its expected value. The broader the range of possible values (dispersion), the greater is the risk of the investment. *Low-risk investments* are those considered safe with respect to the return of funds invested and the receipt of a positive rate of return. *High-risk investments* are those that have more uncertain future values and levels of earnings.

4. *Foreign investments* are investments in the debt, equity, derivative securities of foreign-based companies, and property in a foreign country. Both direct and indirect foreign investments provide investors more attractive returns or lower-risk investments compared to purely domestic investments. They are useful instruments to diversify a purely domestic portfolio.

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5. The *investment process* brings together suppliers and demanders of funds. This may occur directly (as with property investments). More often the investment process is aided by a *financial institution* (such as a bank, savings and loan, savings bank, credit union, insurance company, or pension fund) that channels funds to investments and/or a *financial market* (either the money market or the capital market) where transactions occur between suppliers and demanders of funds.

6. (a) The various levels of government (federal, state, and local) require more funds for projects and debt repayment than they receive in revenues. Thus, governments are *net demanders* of funds. Governments also demand funds when the timing of their revenues does not match their expenditures. The term *net* refers to the fact that, while governments both supply and demand funds in the investment process, on balance they demand more than they supply.
   (b) Businesses are also *net demanders,* requiring funds to cover short- and long-term operating needs. While business firms often supply funds, on balance they also demand more than they supply.
   (c) Individuals are the *net suppliers* of funds to the investment process. They put more funds into the investment process than they take out. Individuals play an important role in the investment process—supplying the funds needed to finance economic growth and development.

7. *Institutional investors* are investment professionals who are paid to manage other people's money. They are employed by financial institutions like banks and insurance companies, by nonfinancial businesses, and by individuals. *Individual investors* manage their own personal funds in order to meet their financial goals. Generally, institutional investors tend to be more sophisticated because they handle much larger amounts of money, and they tend to have a broader knowledge of the investment process and available investment techniques and vehicles.

8. *Short-term investments* usually have lives of less than one year. These vehicles may be used to "warehouse" temporarily idle funds until suitable long-term vehicles are found. Due to their safety and convenience, they are popular with those who wish to earn a return on temporarily idle funds or with the very conservative investor who may use these short-term vehicles as a primary investment outlet. In addition to their "warehousing" function, short-term vehicles provide liquidity—they can be converted into cash quickly and with little or no loss in value. This characteristic is very useful when investors need to meet unexpected expenses or take advantage of attractive opportunities.

9. *Common stock* is an equity investment that represents a fractional ownership interest in a corporation. The return on a common stock investment derives from two sources: *dividends,* which are periodic payments made by the firm to its shareholders from current and past earnings, and *capital gains,* which result from selling the stock at a price above the original purchase price. Because common stock offers a broad range of return-risk combinations, it is one of the most popular investment vehicles.

10. a. *Bonds* are debt obligations of corporations or governments. A bondholder receives a known interest return, typically semi-annually, plus the face value at maturity. Bonds are usually issued in $1,000 denominations, pay semi-annual interest, and have 20- to 40-year maturities. Bonds offer fixed/certain returns, if held until maturity.
    b. A *convertible security* is a fixed-income security, either a bond or preferred stock, which has a conversion feature. Typically, it can be converted into a specified number of shares of common stock. Convertible securities are quasi-derivative securities, as their market value would depend on the price of the common stock and the conversion ratio.

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c. *Preferred stock* is very much like common stock in that it represents an ownership interest in a corporation. But preferred stock pays only a fixed stated dividend, which has precedence over common stock dividends, and does not share in other earnings of the firm.

d. A *mutual fund* is a company that invests in a large portfolio of securities, whereas a *money market mutual fund* is a mutual fund that solely invests in short-term investment vehicles. Investors might find mutual funds appealing because a large portfolio may be more consistent with their investment goals in terms of risk and return. As we will see later, a mutual fund offers the investor the benefits of diversification and professional management. Mutual funds do not offer fixed/certain returns. Mutual funds are quasi-derivative securities, as their market value would depend on the price of the assets that make up the fund's portfolio. Exchange-traded funds are similar to mutual funds but are traded throughout the day on exchanges and priced continuously.

e. Similar to mutual funds, *hedge funds* pool the investors' funds to invest in securities but are open to a narrower group of investor than mutual funds and may employ high-risk strategies. They do not offer a fixed return and are most often not based on derivatives. Hedge funds usually employ a professional manager.

f. *Options* are derivative securities that provide holders the right to buy or sell another security (typically stock) or property at a specified price over a given time period. Factors like the time until expiration, the underlying stock price behavior, and supply and demand conditions affect the returns.

g. *Futures* represent contractual arrangements in which a seller will deliver or a buyer will take delivery of a specified quantity of a commodity at a given price by a certain date. Unlike an option, which gives the investor the *right* to purchase or sell another security, futures contracts *obligate* the investor to deliver or take delivery. Factors affecting returns on commodity contracts include changes in government policy, unpredictable weather, trade embargoes, and other events.

11. Before developing and executing an investment program, an investor must ensure the following:

- *Necessities of life* such as funds for housing, food, transportation, taxes, etc. are fully provided for.
- The investor is adequately insured against the losses resulting from death, illness or disability, property damage, etc.
- Retirement goals are established.

The seven steps in investing are as follows:

(1) *Meet investment prerequisites.* Provide for the necessities of life, adequate protection against losses, and setting retirement goals.

(2) *Establish investment goals.* Investment goals are the financial objectives that one wishes to achieve by investing. Common investment goals are:
- Accumulate retirement funds
- Enhance current income through interest income and dividends
- Save for major expenditures like home, education, etc.
- Shelter income from taxes

(3) *Adopt an investment plan.* An investment plan is a written document describing how funds will be invested. The more specific your investment goal, the easier it will be to establish an investment plan consistent with your goals.

(4) *Evaluate investment vehicles.* In this step, the measures of risk and return are used to estimate the perceived worth of an investment vehicle. This process is called valuation.

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(5) *Select suitable investments.* This step involves careful selection of investments that are consistent with established goals and offer acceptable levels of return, risk, and value.
(6) *Construct a diversified portfolio.* Diversification is the concept of forming a portfolio using different investments to reduce risk and increase return. This concept is central to constructing an effective portfolio.
(7) *Manage the portfolio.* Portfolio management involves monitoring the portfolio and restructuring it as dictated by the actual behavior of the investments.

12. Investment goals are the financial objectives you wish to achieve by investing in any of a wide range of investment vehicles. Common investment goals are as follows:
    (1) *Enhancing current income* means choosing investment vehicles that regularly pay dividends and interest that can provide all or some of the money needed to meet living expenses. This is a common goal of retired persons and sometimes an important part of a normal family budget.
    (2) *Saving for major expenditures* includes money set aside for such things as the down payment on a home, college tuition, and even an expensive vacation. The amount of money needed and the time period over which one can save will determine the amount set aside and, frequently, the investment vehicle employed.
    (3) The single most important reason for investing is to *accumulate retirement funds.* The amount that must be set aside is determined by the level of expected expenditures, expected income from Social Security and other sources, and the amount of interest expected to be earned on savings.
    (4) *Sheltering income from taxes* involves taking advantage of certain tax provisions that permit reduction of the income reported to the government or direct reductions in taxes. Investments in certain assets, such as real estate, may be attractive due to their tax advantages.

13. Federal income taxes are charged against all income individuals receive from all sources (with the exception of interest received on some bonds issued by state and local governments).
    a. *Active (ordinary "earned") income* is the broadest category and includes income from wages, salaries, bonuses, tips, pension income, and alimony. It is made up of income earned on the job as well as most other forms of noninvestment income.
    b. *Portfolio (investment) income* is earnings generated from various types of investment holdings. For the most part, it consists of interest, dividends, and capital gains earned on most types of investments. *Passive income* is a special category that consists of income derived chiefly from real estate, limited partnerships, and other forms of tax shelters.
    c. *Capital gains* are the profits earned on the sale of capital assets—pleasure or investment. They are measured by the amount by which the proceeds from the sale of the capital asset exceed its original purchase price. Currently, long-term capital gains are taxed at preferential rates to ordinary income. Capital gains are appealing to investors because they are not taxed until they are actually realized.
    d. A *capital loss* is the amount by which the proceeds from the sale of a capital asset are less than its original purchase price. Up to $3,000 of net losses can be applied against ordinary income in any one year, with the unused portion carried forward to offset future income.
    e. Due to the opportunities and challenges created by the tax laws, *tax planning* is an important part of the investment process. Tax planning involves looking at an individual's current and projected earnings and developing strategies that will defer or minimize the level of his or her taxes. Tax plans involve current income, capital gains, or tax-sheltered investments. For example, one strategy is to take losses as they occur and to delay taking profits in order to minimize current taxable income.

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f. In general, tax-advantaged retirement plans allow individuals to defer taxes on the contribution and/or portfolio earnings until some future date when retirement withdrawals take place. There are employer-sponsored plans (such as 401(k) accounts), individual-created plans (such as Keogh plans), and individual retirement accounts (IRAs).

14. Investors tend to follow different investment strategies as they move through different stages of their life cycle.
    a. Young investors, *ages 20 to 45,* tend to prefer growth-oriented investments that stress *capital gains* rather than income. These investors have little investable funds, and capital gains are seen as the quickest way to build up investment capital.
    b. By middle age, *ages 45 to 60,* there is a consolidation taking place as family demands and responsibilities change. While growth-oriented securities are still used, investing becomes less speculative. *Quality-growth* vehicles are employed, and more attention is given to *current income.* The foundation is being set for retirement.
    c. As the investor moves into the retirement years, *age 60 on,* preservation of capital and current income become the principal concerns. High-quality stocks and bonds and money market instruments are used as the investor's objective is to live as comfortably as possible from the investment income. During retirement, one tries to reap the rewards of a lifetime of saving and investing.

15. Stocks and equity-related securities (such as mutual funds and convertibles) are highly responsive to the economic cycle. During recovery and expansion, stock prices are up. As the decline approaches, stock prices begin to decline as well. Growth-oriented and speculative stocks tend to do especially well in an expanding economy. Bonds and other fixed-income securities are sensitive to movements in interest rates. Bond prices also move in the opposite direction of interest rate changes. This means that if interest rates are expected to rise, bond prices would fall, and bonds would not be a good place to hold investment funds. Interest rates generally shift with the economic cycle. Rates rise during normal recovery and fall during economic declines.

16. An asset is *liquid* if it can be converted to cash (sold) easily and quickly, with little or no loss in value. You would want to hold liquid assets as emergency funds or to accumulate funds for some specific purpose. IBM stock is not considered a liquid investment even though it can be easily sold. As with stocks in general, you can never be sure that, when funds are needed, you can quickly sell the stock without taking a loss.

17. *Purchasing power risk* for short-term investments occurs when the rate of return on these investments falls short of the inflation rate. This generally happens to fixed-rate investments such as passbook savings accounts. Most other short-term investments have managed to provide rates of return about equal to the inflation rate when one looks at these short-term rates over long periods of time. *Default (nonpayment) risk* is very small with most short-term investments. The deposits in banks and other federally insured savings institutions are protected up to $100,000 per account by agencies of the federal government. U.S. Treasury bills are perfectly safe and sometimes called a risk-free investment. Commercial paper and repurchase agreements are extremely safe, based upon past experience, even though there have been rare instances of problems. These latter two instruments are also not insured. Money market mutual funds have also had an exceptionally safe history. Of course, the safest money market funds are those that invest solely in government securities and are virtually default-risk-free.

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