

ANSWERS TO END-OF-CHAPTER QUESTIONS

- 1-1.** The term **Investments** can be thought of as representing the study of the investment process. An **investment** is defined as the commitment of funds to one or more assets to be held over some future time period.
- 1-2.** Traditionally, the investment decision process has been divided into security analysis and portfolio management.
- **Security analysis** involves the analysis and valuation of individual securities; that is, estimating value, a difficult job at best.
 - **Portfolio management** utilizes the results of security analysis to construct portfolios. As explained in Part II, this is important because a portfolio taken as a whole is not equal to the sum of its parts.
- 1-3.** The study of investments is important to many individuals because almost everyone has wealth of some kind and will be faced with investment decisions sometime in their lives. One important area where many individuals can make important investing decisions is that of retirement plans, particularly 401 (k) plans. In addition, individuals often have some say in their retirement programs, such as allocation decisions to cash equivalents, bonds, and stocks.

The dramatic stock market gains of 1995-1999 and the sharp losses in 2000-2002 and 2008 illustrate well the importance of studying investments. Investors who were persuaded in the past to go heavily, or all, in stocks reaped tremendous gains in their retirement assets as well as in their taxable accounts in 1995-1999 and then often suffered sharp losses in 2000-2002 and 2008.

- 1-4.** A **financial asset** is a piece of paper evidencing some type of financial claim on an issuer, whether private (corporations) or public (governments).

A **real asset**, on the other hand, is a tangible asset such as gold coins, diamonds, or land.

- 1-5.** Investments, in the final analysis, is simply a risk-return tradeoff. In order to have a chance to earn a return above that of a risk-free asset, investors must take risk. The larger the return expected, the greater the risk that must be taken.

The risk-return tradeoff faced by investors making investment decisions has the following characteristics:

- ☞ The risk-return tradeoff is upward sloping because investment decisions involve expected returns (vertical axis) versus risk (horizontal axis).
- ☞ The *vertical intercept* is R_F , the risk-free rate of return available to all investors.

- 1-6.** An investor would expect to earn the risk-free rate of return (RF) when he or she invests in a risk-free asset. This is the zero risk point on the horizontal axis in Figure 1-1.
- 1-7. Disagree.** Risk-averse investors will assume risk if they expect to be adequately compensated for it.
- 1-8.** The *basic nature of the investment decision* for all investors is the upward-sloping tradeoff between expected return and risk that must be dealt with each time an investment decision is made.
- 1-9. Expected return** is the anticipated return for some future time period, whereas **realized return** is the actual return that occurred over some past period.
- 1-10.** In general, the term **risk** as used in investments refers to adverse circumstances affecting the investor's position. Risk can be defined in several different ways. **Risk** is defined here as the chance that the actual return on an investment will differ from its expected return.

Beginning students will probably think of default risk and purchasing power risk very quickly. Some may be aware of *interest rate risk* and *market risk* without fully understanding these concepts (which are explained in later chapters). Other risks include *political risk* and *liquidity risk*. Students may also remember *financial risk* and business risk from their managerial finance course.

- 1-11.** As explained in Chapter 21, return and risk form the basis for investors establishing their objectives. Some investors think of risk as a constraint on their activities. If so, risk is the most important constraint. Investors face other constraints, including:

- ☞ time
- ☞ taxes
- ☞ transaction costs
- ☞ income requirements
- ☞ legal and regulatory constraints
- ☞ diversification requirements

- 1-12.** All *rational* investors are risk averse because it is not rational when investing to assume risk unless one expects to be compensated for doing so.

All investors do not have the same degree of risk aversion. They are risk averse to varying degrees, requiring different risk premiums in order to invest.

- 1-13.** Investors should determine how much risk they are willing to take before investing—this is their **risk tolerance**. Based on their risk tolerance, investors can then decide how to invest. Investors may seek to maximize their expected return consistent with the amount of risk they are willing to take.

1-14. The external factors affecting the decision process are:

- (1) uncertainty—the great unknown
- (2) the global investments arena
- (3) the importance of the internet
- (4) individual investors vs. institutional investors

The most important factor is uncertainty, the ever-present issue with which all investors must deal. Uncertainty dominates investments, and always will.

1-15. Institutional investors include bank trust departments, pension funds, mutual funds (investment companies), insurance companies, and so forth. Basically, these financial institutions own and manage portfolios of securities on behalf of various clienteles.

They affect the investing environment (and therefore individual investors) through their actions in the marketplace, buying and selling securities in large dollar amounts. However, although they appear to have several advantages over individuals (research departments, expertise, etc.); reasonably informed individuals should be able to perform as well as institutions, on average, over time. This relates to the issue of market efficiency.

1-16. Required rates of return differ as the risk of an investment varies. Treasury bonds, generally accepted as being free from default risk, are less risky than corporates, and therefore have a lower required rate of return.

1-17. Investors should be concerned with international investing for several important reasons. First, international investing offers diversification opportunities, and diversification is extremely important to all investors as it provides risk reduction. Second, the returns may be better in foreign markets than in the U. S. markets. Third, many U. S. companies are increasingly affected by conditions abroad—for example, Coca Cola derives most of its revenue and profits from foreign operations. U. S. companies clearly are significantly affected by foreign competitors.

The exchange rate (currency risk) is an important part of all decisions to invest internationally. As discussed in Chapter 6 and other chapters, currency risk affects investment returns, both positively and negatively.

1-18. The long run ex ante tradeoff between expected return and risk should be an upward sloping line indicating that the greater the risk taken, the greater the expected return.

The long run ex post tradeoff between return and risk should also be upward sloping if investing is to make sense. Over long periods riskier assets should return more than less risky assets.

1-19. Disagree. If investors always attempted to minimize their risk, they would only invest in Treasury bills. Instead, investors must seek a balance between expected return and risk.

- 1-20.** Disagree. If investors sought only to maximize their returns, they would purchase the riskiest assets, ignoring the risk they would be taking. Once again, investors must seek a balance between expected return and risk.