CHAPTER 2

Investment Alternatives

MULTIPLE CHOICE

1. Which of the following is *not* a usual characteristic of money market securities?
   a. They are issued by large credit worthy corporations in large denominations.
   b. They are very liquid instrument that trade without a significant liquidity premium.
   c. They are of an intermediate to long term maturity.
   d. They include T-bills, commercial paper, and bankers' acceptances.
   Answer: c Topic: Money Market Securities Level of Difficulty: Moderate
   Type: Factual

2. The coupon rate is another name for the:
   a. market interest rate.
   b. current yield.
   c. stated interest rate.
   d. yield to maturity.
   Answer: c Topic: Capital Market Securities: Bonds Level of Difficulty: Easy
   Type: Factual

3. T-bills are sold:
   a. on an auction basis every two weeks by the Bank of Canada.
   b. in denominations ranging from $1,000 to $1,000,000.
   c. for only 91 days maturity.
   d. both a. and b.
   Answer: d Topic: Money Market Securities Level of Difficulty: Moderate
   Type: Factual

4. Which of the following is true concerning corporate bonds?
   a. Mortgage bonds are secured obligations whereas debentures are unsecured.
   b. Bonds have a subordinated debenture which functions as a contract between the bondholder and the issuing company.
   c. Bonds have superior voting rights to common shareholders.
   d. One can buy a bond at any time and receive an immediate interest cheque.
   Answer: a Topic: Capital Market Securities: Bonds Level of Difficulty: Moderate
   Type: Factual

5. Bonds with a call provision can be:
   a. exchanged for common shares at the option of the bondholder.
   b. redeemed prior to maturity at option of the issuing company.
   c. exchanged for common shares at the option of the issuing company.
   d. redeemed prior to maturity at the option of the bondholder.
   Answer: b Topic: Capital Market Securities: Bonds Level of Difficulty: Moderate
   Type: Factual

6. Which of the following statements regarding dividend dates is true?
   a. The ex-dividend date is prior to the date of record.
   b. The date of record is prior to the declaration date.
   c. The ex-dividend date is prior to the declaration date.

d. The date of record is prior to the ex-dividend date.
Answer: d Topic: Equity Securities: Common Stock Level of Difficulty: Moderate
Type: Factual

7. A major difference between a warrant and a call option is that:
a. warrants have less value.
b. warrants allow investors to buy bonds; calls allow investors to buy stock.
c. warrants generally have a longer term.
d. options have a greater leverage effect.
Answer: c Topic: Derivative Securities Level of Difficulty: Difficult Type: Factual

8. Dividends on common stock are typically declared and paid:
a. monthly.
b. quarterly.
c. semi-annually.
d. yearly.
Answer: b Topic: Equity Securities: Common Stock Level of Difficulty: Easy
Type: Factual

9. If an investor states that Commercial Bank is undervalued at 15 times, he is referring to the:
a. EPS.
b. dividend yield.
c. market to book ratio.
d. earning multiple.
Answer: d Topic: Common Stock: P/E Ratio or Earnings Multiple
Level of Difficulty: Difficult Type: Factual

10. Retractable bonds:
a. give the bondholder the right to sell the bonds back to the issuer prior to maturity.
b. give the issuer the right to buy the bonds back from the issuer prior to maturity.
c. give the bondholder the right to buy additional bonds from the issuer.
d. give the issuer the right to sell additional bonds to the bondholder..
Answer: a Topic: Capital Market Securities: Bonds Level of Difficulty: Moderate
Type: Factual

11. Which of the following statements regarding money market instruments is *not* true?
a. They tend to be highly marketable.
b. They tend to require a large dollar investment.
c. They tend to have a high probability of default.
d. Their rates tend to move together.
Answer: c Topic: Money Market Securities Level of Difficulty: Moderate
Type: Factual

12. Which of the following is a capital market instrument?
a. Repurchase agreements
b. Negotiable CDs
c. Preferred stock
d. Commercial paper
Answer: c Topic: Capital Market Securities Level of Difficulty: Moderate
Type: Factual

13. Which of the following money market instruments is normally used in international trade?
    a. Negotiable CDs
    b. Commercial paper
    c. Repurchase agreements
    d. Bankers' acceptances
    Answer: d Topic: Money Market Securities Level of Difficulty: Difficult
    Type: Factual

14. Coupon interest on corporate bonds is typically paid:
    a. monthly.
    b. quarterly.
    c. semi-annually.
    d. annually.
    Answer: c Topic: Capital Market Securities: Bonds Level of Difficulty: Moderate
    Type: Factual

15. The price a bond buyer must pay that includes accrued interest is known as the:
    a. call price.
    b. coupon rate.
    c. premium price.
    d. invoice price.
    Answer: d Topic: Capital Market Securities: Bonds Level of Difficulty: Difficult
    Type: Factual

16. Derivative securities include all of the following except:
    a. options.
    b. forwards.
    c. futures.
    d. corporate bonds.
    Answer: d Topic: Derivative Securities Level of Difficulty: Moderate Type: Factual

17. An unsecured bond that has a claim that is after all other debt holders is known as a(an):
    a. debenture.
    b. indenture.
    c. mortgage bond.
    d. subordinated debenture
    Answer: d Topic: Capital Market Securities: Bonds Level of Difficulty: Moderate
    Type: Factual

18. Which of the following is not a reason investors are attracted to asset-backed securities?
    a. Investors are often protected by a bond insurer.
    b. These securities often have investment-grade credit ratings.
    c. These securities have relatively high yields.
    d. These securities are generally long-term, stable investments.
    Answer: d Topic: Capital Market Securities: ASB Level of Difficulty: Difficult Type: Factual

19. A three-for-one stock split results in which of the following, compared to before the split?
    a. Three times as many shares; the same total book value of equity; one-third the market price per share.

b. Three times as many shares; three times the total book value of equity; three times the market price per share.
c. One-third as many shares; the same total book value of equity; one-third the market price per share.
d. One-third as many shares; one-third the total book value of equity; one-third the market price per share.

Answer: a Topic: Capital Market Securities: Common Stock
Level of Difficulty: Difficult Type: Conceptual

20. The CDIC provides deposit insurance for the following institutions:
    1. Chartered banks
    2. Credit Unions and Caisses Populaires
    3. Trust companies
    4. Insurance companies

    a. 1 only
    b. 1 and 2
    c. 1 and 3
    d. 1 and 4

Answer: c Topic: Real-World Returns 2-1 Level of Difficulty: Moderate Type: Factual

21. Which of the following is true for bond rating companies?
    a. bond ratings are issued exclusively by Moody's
    b. bond ratings are of interest only at the time the bond is issued
    c. bond ratings can be changed by the rating agency as the issuer's circumstances change
    d. the higher the bond rating the greater the interest paid.

    Answer: c Topic: Fixed-Income Securities
    Level of Difficulty: Moderate Type: Factual

TRUE-FALSE

1. Indirect investing means that the investor buys shares on the stock exchange as opposed to directly from the company.
   Answer: False Topic: Organizing Financial Assets Level of Difficulty: Moderate
   Type: Factual

2. An example of direct investing would be buying shares in a mutual fund.
   Answer: False Topic: Organizing Financial Assets Level of Difficulty: Easy
   Type: Factual

3. Nonmarketable investments would include savings accounts at banks and Canada Savings Bonds.
   Answer: True Topic: Organizing Financial Assets Level of Difficulty: Moderate
   Type: Factual

4. The purchase of any marketable security would constitute a capital market transaction.
   Answer: False Topic: Organizing Financial Assets Level of Difficulty: Easy
   Type: Factual

5. The Canadian government does not issue non-marketable securities.
   Answer: False Topic: Non-Marketable Financial Assets Level of Difficulty: Easy
   Type: Factual

6. Money market instruments are generally highly liquid.
Answer: True Topic: Non-Marketable Financial Assets Level of Difficulty: Moderate
Type: Factual

7. The money market security most often used as a benchmark for the risk-free rate is the average rate paid on bankers' acceptance.
Answer: False Topic: Money Market Securities Level of Difficulty: Easy
Type: Factual

8. The rate spreads between the different money market securities of the same term tend to be quite small.
Answer: True Topic: Money Market Securities Level of Difficulty: Difficult
Type: Factual

9. The non-traded debt of the Canadian government are Canada Savings Bonds.
Answer: True Topic: Fixed-Income Securities Level of Difficulty: Moderate
Type: Factual

10. Commercial paper is sold in both the capital and money markets.
Answer: False Topic: Money Market Securities Level of Difficulty: Easy
Type: Factual

11. Term bonds have a single maturity while serial bonds have several maturity dates.
Answer: True Topic: Fixed-Income Securities Level of Difficulty: Moderate
Type: Factual

12. The return on a stripped bond is derived from the difference between the price paid and the face value.
Answer: True Topic: Fixed-Income Securities Level of Difficulty: Difficulty
Type: Factual

13. The smaller the discount on a zero-coupon bond, the higher the effective return.
Answer: False Topic: Fixed-Income Securities Level of Difficulty: Moderate
Type: Factual

14. If a bond has a coupon rate less than the prevailing market yield, it is selling at a discount.
Answer: True Topic: Capital Market Securities Level of Difficulty: Difficult
Type: Factual

15. Callable bonds attract investors because they can be redeemed early.
Answer: False Topic: Fixed-Income Securities Level of Difficulty: Moderate
Type: Factual

16. Companies would be more likely to exercise the call features on bonds when interest rates rise.
Answer: False Topic: Fixed-Income Securities Level of Difficulty: Moderate
Type: Factual

17. The call provision on callable bonds is usually not exercisable immediately but is deferred for a period of time as specified in the bond indenture.
Answer: True Topic: Fixed-Income Securities Level of Difficulty: Difficult
Type: Factual

18. In the case of a corporate bankruptcy, both bondholders and debenture holders are paid before any distributions are paid to preferred or common stockholders.
Answer: True Topic: Fixed-Income Securities Level of Difficulty: Moderate
Type: Factual

19. Bond ratings are primarily used to assess price risk for the bond.
Answer: False Topic: Fixed-Income Securities Level of Difficulty: Moderate
Type: Factual

20. A major Canadian bond rating service is Dominion Bond Rating Service.
Answer: True Topic: Fixed-Income Securities Level of Difficulty: Easy
Type: Factual

21. The earnings retention rate is calculated as dividends paid/net income.
Answer: False Topic Equity Securities: Common Stock
Level of Difficulty: Easy Type: Factual

22. The par value of preferred stock sets the maximum value that these stockholders would receive in case of bankruptcy.
Answer: True Topic: Fixed-Income Securities Level of Difficulty: Easy
Type: Factual

SHORT ANSWER

1. Distinguish between direct and indirect investing.
Answer: Direct investing—buy bonds and stocks.
Indirect investing—buy mutual funds, contribute to pension plans, buy life insurance policies.

2. Compare the cash flows that an investor expects from any pure discount instruments, coupon bonds, zero-coupon bonds, preferred stock and common stock.
Answer: Pure discounts instruments arise when an investor has only two cash flows which are at the beginning when the instrument is purchased for a discount (T-bills, zero coupon bonds) and then redeemed for the face value (principal) at maturity.
Coupon bonds provide two types of cash flows being an annuity of interest payments with a balloon payment of principal at maturity..
Preferred stock pays a perpetuity of dividends. To receive an additional cash flow the investor would need to sell the instrument in the market at the prevailing market price. Some preferred issues are redeemable.
Common stock does not guarantee any cash flow from holding the security as any dividends will need to be declared. The other way of have a cash flow is to sell the investment.

3. How are the earnings retention ratio and the dividend payout ratio determined?
Answer: The dividend payout ratio and the earnings retention ratio (plowback ratio) are both based on net income and are complements. The dividend payout ratio is the percentage of the net income distributed to shareholders (dividends/net income) with the earnings retention ratio being the percentage of net income reinvested in the firm (retained earnings/net income). Alternatively the earnings retention ratio = 1 – dividend payout ratio.

4. Why is the ex-dividend date before the holder-of-record date?
Answer: So that paperwork can be completed to show correct owners.

5. How is the total book value of equity affected by stock splits? Stock dividends? Are the book values of common stock, capital in excess of par, or retained earnings affected by either?
   Answer: Stock splits do not affect total value of equity or the individual accounts, other than the number of shares outstanding and the par value. Stock dividends do not affect the total value of equity, but retained earnings are transferred to common stock and capital in excess of par. The number of shares outstanding is affected.

6. Why might one say that a stock trading at 10 times earnings could potentially provide a less expensive investment opportunity than a stock with a P/E ratio of 20?
   Answer: The P/E or price-to earnings ratio and the earnings multiple are one indication that a share may be undervalued. The ratio is defined as the current price of the share divided by the latest EPS. The higher the P/E ratio means that investors are willing to pay higher amounts to purchase with a lower ratio implying that the stocks may be undervalued and are better buying opportunities for investors.

7. What are one direct and one indirect method for individuals to invest in foreign stocks?
   Answer: Buy securities directly through exchanges and indirectly through mutual funds.

8. Explain how writing option contracts (both puts and calls) can generate income for owners of the underlying stock.
   Answer: The writer receives the option premium as a cash flow at the beginning regardless of whether or not the option is subsequently exercised.

9. Rank (lowest to highest) the following securities in terms of the risk-expected return trade-off from the investors' viewpoint: common stock, corporate bonds, Government of Canada bonds, options, preferred stock.
   Answer: Government of Canada bonds, corporate bonds, preferred stock, common stock, options.

10. What are some advantages of asset-backed securities to investors?
    Answer: High yields with manageable risk.

CRITICAL THINKING/ESSAY

1. Do the stock options markets help stabilize or destabilize the stock markets? Explain.
   Answer: Options should be a stabilizing force if options are used to hedge stock positions, either through writing calls against common shares owned to generate a covered call position or purchasing calls to cover a short stock transaction. Options might be destabilizing if used for speculation.

2. How do asset-backed securities improve the flow of funds from savers to borrowers?
   Answer: Asset-backed securities can be sold to a broader market of investors than the underlying securities.

PROBLEMS

1. Based on the following partial balance sheet, calculate the book value per share of common equity.

Current liabilities	$ 20,000
Long-term debt	90,000
Common stock ($1 par)	20,000
Capital in excess of par	60,000

Retained earnings	80,000
Total	$270,000

Answer:
Shares outstanding = $20,000 ¸ $1 par = 20,000 shares

Total book value = common stock + capital in excess of par equity + retained earnings
= $20,000 + $60,000 + $80,000 = $160,000

Book value per share = $160,000 ¸ 20,000 shares = $8 per share

2. Based on the following partial balance sheet, calculate the price for which the stock originally sold to the public. Assume there has been only one public offering.

Current liabilities	$ 20,000
Long-term debt	90,000
Common stock ($1 par)	20,000
Capital in excess of par	60,000
Retained earnings	80,000
Total	$270,000

Answer:
Shares outstanding = $20,000 ¸ $1 par = 20,000 shares

Book value of original = common stock + capital in excess of par issue equity
= 20,000 + 60,000 = $80,000
Original price = original book value per share
= $80,000 ¸ 20,000 shares = $4 per share

3. The par value of Blaze, Inc., common stock is $1.00; the earnings per share is $2; the market price is $25; and the dividend per share is $1. Calculate the P/E ratio.
Answer: P/E = $25 ¸ $2 = 12.5

4. Referring to the data in question 3 above, what is Blaze's dividend yield?
Answer: Dividend yield = $1 ¸ $25 = 0.04 (4%)

5. Referring to the data in question 3 above, what is Blaze's payout ratio?
Answer: Payout rate = $1 ¸ $2 = 0.5 (50%)