CHAPTER 2
Investment Alternatives

REVIEW QUESTIONS

2-1. **Marketable securities** are classified into one of three categories: money market instruments, capital market instruments, and derivatives.

Money market instruments are short-term, highly liquid, low risk securities. They include Treasury bills, commercial paper, Eurodollars, repurchase agreements, and banker's acceptances.

Capital market instruments are long-term instruments of higher risk and varying degrees of liquidity. They are separated into fixed-income securities and equity securities.

- *Fixed-income securities* promise to pay stated amounts at stated times.
- *Equity securities* represent ownership rights, with a residual claim to assets and earnings.

Derivative securities derive their value in whole or in part by having a claim on some underlying security. They include warrants, options, and futures contracts.

Level of Difficulty: Medium Topic: Organizing Financial Assets

2-2. A **savings deposit** is a nonmarketable account at banks and other financial institutions. The investor's funds are available on demand, with no specific maturity date. It offers safety and liquidity.

Guaranteed Investment Certificates (GICs), offered by the same institutions, are non-transferable time deposits available for various maturities at various rates. Again, these GICs are non-marketable.

Level of Difficulty: Easy Topic: Non-Marketable Financial Assets

2-3. Treasury bills are auctioned every two weeks. Treasury bills are sold at less than face value (a discount), and redeemed at maturity for the face value, with this spread constituting an investor's return. The greater the discount (the smaller the price paid for the bills), the larger the return.

Level of Difficulty: Easy Topic: Money Market

2-4. Common stockholders are the residual claimants of a corporation because they are entitled to all earnings after payment of any debt interest and any preferred dividends. In case of liquidation, they are entitled to any assets remaining after bondholder and preferred stockholder claims have been satisfied.

Level of Difficulty: Medium Topic: Equity Securities

2-5. There is no requirement for a company to pay a dividend on the common stock. Any payment is decided by the company's board of directors, who can change the dividend (or abolish it), at any time.
Level of Difficulty: Medium Topic: Dividends

2-6. With a **serial bond**, a certain percentage of the issue matures each year. A **term bond** has a specified maturity date in the future for the entire issue.
Level of Difficulty: Medium Topic: Bond Characteristics

2-7. **Indirect investing** involves the purchase and sale of investment company shares. Since investment companies hold portfolios of securities, an investor owning investment company shares indirectly owns a pro-rata share of a portfolio of securities. In contrast, direct investing involves investors themselves buying and selling securities that may be marketable or non-marketable in nature.
Level of Difficulty: Medium Topic: Organizing Financial Assets

2-8. For practical purposes, Treasury bills are considered to be default-free securities. Although very safe, commercial paper does carry some risk of default. Therefore, T-bills should have a lower return.
Level of Difficulty: Medium Topic: Money Market

2-9. Securities with maturities of one year or less (such as Treasury Bills and commercial paper) are traded on the money markets. Fixed-income (such as government and corporate bonds), and equity securities (such as common and preferred stocks), with maturities greater than one year are traded on the capital markets.
Level of Difficulty: Medium Topic: Organizing Financial Assets

2-10. Both a warrant and a call option give the investor the right (but not the obligation), to purchase a specific number of shares of the underlying stock at a specific price within a specified time period. For an investor, the main difference is that at the time of issuance, a warrant usually has a much longer time until expiration, and its exercise price is usually much lower than the stock price.
Level of Difficulty: Difficult Topic: Equity Securities

2-11. Advantages of investing in Government of Canada bonds versus corporate bonds include:

- Lower risk
- Better liquidity

Disadvantages of investing in Government of Canada bonds versus corporate bonds include:

- Lower yields
- No convertibility features

Level of Difficulty: Medium Topic: Types of Bonds

2-12. A **Canada Savings Bond** is non-marketable, non-transferable, and may be cashed in at any time for its full par value plus accrued interest.

A **Government of Canada long-term bond** is marketable and transferable. It fluctuates in price over time, and may sell above or below its stated par value.

Level of Difficulty: Medium Topic: Organizing Financial Assets

2-13. Preferred stock is referred to as a hybrid security because it has some features similar to fixed-income securities (it pays a fixed return and has a meaningful par value), and some features similar to equity securities (it never matures and it pays dividends).

Level of Difficulty: Medium Topic: Preferred Stock

2-14. A **derivative security** is a security that derives its value from other more basic underlying assets, such as securities, commodities, or currencies. Derivative securities are also referred to as *contingent claims*.

The major determinant of the price of a derivative security is the price of the underlying asset.

Level of Difficulty: Difficult Topic: Derivative Securities

2-15. **Securitization** refers to the transformation of illiquid risky individual loans into more liquid, less risky securities referred to as asset-backed securities (ABS).

The best example of an asset-backed security is a mortgage-backed security (MBS). Other recent examples include car loans, aircraft leases, credit-card receivables, railcar leases, small-business loans, photocopier leases, and so forth.

Level of Difficulty: Difficult Topic: Asset-Backed Securities

2-16. The **convertible** feature of a bond is advantageous to a bondholder because it gives the bondholder the option to convert the bond into shares of the underlying stock of the company at a predetermined price. This gives the investor the ability to participate in any upside movement in the stock.

The **retractable** feature of a bond is advantageous because it allows a bondholder to sell the bond back to the issuing company at predetermined prices at specific times.

Bondholders pay for these privileges by paying more for the bonds. In other words, they accept a lower rate of return.
Level of Difficulty: Difficult Topic: Bond Characteristics

2-17. **Stock dividends** and **stock splits** do not, other things being equal, represent additional value. Some people believe that these transactions increase the ownership of a stock by bringing it into a more favourable price range. In addition, there is some academic evidence that stock prices receive a boost after a stock split.
Level of Difficulty: Medium Topic: Characteristics of Common Stocks

2-18. A stockholder is the residual claimant in a corporation, entitled to the earnings remaining after the bondholders and preferred stockholders are paid. Of course, all earnings are not usually paid out to stockholders. Also, in case of liquidation, the stockholders are entitled to the residual assets after the bondholders' and preferred stockholders' (as well as other), claims are settled. While stockholders assume the risk that returns will be negative in some years, they expect some large returns in other years. They also expect, on average, to earn more than the bondholders.

A bondholder has considerable assurance of receiving the interest payments because of Bombardier's overall financial strength; however, the bondholder will never receive more than the stated interest and principal payments.
Level of Difficulty: Medium Topic: Capital Market Securities

2-19. The $3.20 dividend is the *annual* dividend. The stock goes ex-dividend on August 13 (assuming August 13 and August 14 are regular business days). An investor must buy the stock on or before August 12 to receive the dividend.

With 150 shares, 150 ($.80) = $120 will be received. (The quarterly dividend is 1/4 of $3.20, or $.80.)
Level of Difficulty: Medium Topic: Dividends

2-20. Three types of derivative securities are warrants, options, and futures contracts.

Warrants are corporate-created, long-term options to purchase a stated number of shares at a specified price within a specified time.

Options give investors the right to buy or sell a stated number of shares within a specified period at a specified price.

Futures contracts are agreements providing for the future exchange of a particular asset between a buyer and seller at a specified date for a specified amount.
Level of Difficulty: Medium Topic: Derivative Securities

2-21. The convertible feature of a bond might be utilized if the price of the underlying stock rises above a certain point.
Level of Difficulty: Medium Topic: Bond Characteristics / Equity Securities

2-22. The retractable feature of a bond might be utilized if interest rates rise substantially above the coupon rate on the bond.
Level of Difficulty: Difficult Topic: Bond Characteristics

2-23. This is possible if the share pays a cash dividend and if the amount of the dividend is more than the drop in the share price.
Level of Difficulty: Medium Topic: Dividends

2-24. A stock with a high dividend yield is usually less risky than a stock that does not pay any dividend because the high dividend yield tends to stabilize the stock price. Also, companies that pay high dividend yields on their stocks are usually in more stable and mature industries and have more stable cash flows.
Level of Difficulty: Difficult Topic: Risk

2-25. The *call feature* is an advantage to the issuer and a disadvantage to investors. The latter must give up a higher-yielding bond and replace it to continue having a position with a lower-yielding bond. Issuers will call in bonds when interest rates have dropped substantially (e.g., two or three percentage points), from a period of very high rates.

The callable bond should offer a higher rate of interest, since it is riskier than a similar bond without the call feature. This is because there is the risk that the bond will be called and the investor will end up with a lower-yielding bond.
Level of Difficulty: Difficult Topic: Bond Characteristics

2-26. From the corporation's perspective, a warrant is issued by the corporation. If exercised, it would increase the number of shares outstanding. A call option, on the other hand, is issued by a third party and will not change the number of shares outstanding if exercised.

If a call option is exercised, the stock price of the underlying share should not change.

If a warrant is exercised, the share price of the underlying stock may drop because ownership in the company has been diluted.

Level of Difficulty: Difficult Topic: Characteristics of Common Stocks

2-27. Some of the contributing factors in determining a company's dividend payout ratio include available cash on hand, available investment opportunities, and historical dividend policy.
Level of Difficulty: Medium Topic: Payout Ratio

2-28. Money market securities include:
Treasury Bills: Short-term promissory notes issued by governments and sold at a discount from face value.
Commercial Paper: Short-term unsecured promissory issued by large, well-known and financially strong corporations (including finance companies).
Banker Acceptances: Time drafts drawn on a bank by a customer, whereby the bank agrees to guarantee payment of a particular amount at a specified future date.
Repurchase Agreements: Agreements between a borrower and lender (typically institutions) to sell and repurchase money market securities.
Eurodollars: Dollar-denominated deposits held in foreign banks or in offices of Canadian banks located abroad.
Level of Difficulty: Easy Topic: Money Market

2-29. Examples of asset-backed securities include: Mortgages, Credit card receivables, Car loans, Railway car leases, Small-business loans, Leases, Film royalties, Student loans, Mutual Fund fees, Tax liens, etc.
Level of Difficulty: Easy Topic: Asset-Backed Securities

2-30. An individual in a high tax bracket would rather invest in stocks than bonds, or zero-coupon bonds. (Interest income for bonds is taxed at a higher rate than capital gains or dividend income.)
Level of Difficulty: Medium Topic: Capital Market Securities

2-31. An individual would be interested in investing in a strip bond because:
- It is in high tax bracket
- It does not need interest income
- Investors do not have to reinvest coupon interest

Level of Difficulty: Medium Topic: Bond Characteristics

2-32. Issuers with the highest quality debt ratings would give the lowest yields. (A++, AAA)
Level of Difficulty: Medium Topic: Types of Bonds

2-33. Junk bonds are low rated bonds, which offer higher yields to compensate the investors for the higher risk of issuer's inability to meet contractual obligations.
Level of Difficulty: Medium Topic: Types of Bonds

2-34. Bearer bonds are presumed to be owned by the party holding them. These bonds are not registered and therefore there is no record of ownership. This may be attractive to an investor who wants to keep his or her ownership of the bond confidential or concealed to avoid taxes or for other reasons. This feature is a disadvantage in case of misplacement or theft of the bonds.
Level of Difficulty: Medium Topic: Types of Bonds

2-35. Eurobonds are bonds issued in a currency foreign to the country in which they are issued. Eurobonds are usually bearer bonds and therefore allow you to avoid taxes. They also allow you to diversify into other currencies but you are therefore exposed to exchange rate risk.
Level of Difficulty: Medium Topic: Types of Bonds

2-36. Bonds are issued by federal, provincial, and municipal governments, as well as by corporations. The last two are the most risky. If one has to be chosen as the most risky, it presumably would be corporates since general obligation municipals (as opposed to revenue bonds) are backed by the taxing power of the issuer.
Level of Difficulty: Easy Topic: Types of Bonds

2-37. The *call feature* is a disadvantage to investors who must give up a higher-yielding bond (higher coupon rate) and replace it (to continue having a position) with a lower-yielding bond. Issuers will call in bonds when interest rates have dropped substantially (e.g., two or three percentage points) from a period of very high rates.

Of course, the bonds may be protected from call for a certain period and cannot be called although the issuer would like to do so. Generally, once unprotected, issuers will call bonds when it is economically attractive to do so, which is when the discounted benefits outweigh the discounted costs of calling the bonds.
Level of Difficulty: Medium Topic: Bond Characteristics

2-38. (b) ratings reflect the relative likelihood of default.
Level of Difficulty: Medium Topic: Bond Ratings

2-39. (a)
Level of Difficulty: Medium Topic: Equity Securities

PROBLEMS

2-1. Spreadsheet exercise

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