

UNIT 1

Types and Characteristics of Equity Securities

LEARNING OBJECTIVES

When you have completed this unit, you will be able to accomplish the following.

- » LO 1.a **Describe** the characteristics of equity securities.
- » LO 1.b **Identify** the basic features of common stock.
- » LO 1.c **Recognize** the different types of preferred stock.
- » LO 1.d **Describe** how incentive stock options differ from nonqualified stock options.
- » LO 1.e **Contrast** restricted stock and nonrestricted stock.
- » LO 1.f **Identify** the unique features of American depository receipts (ADRs) and the risks of investing in foreign securities.

The Series 65 exam will include approximately 7 questions on the material presented in this unit.

INTRODUCTION

Because equity is such an important capital market security, the fundamentals that you learn in this unit will lay the groundwork for your success in future units. This unit will cover common stock, preferred stock, and related equity securities.

The investment world is divided between owners (stock, or equity securities) and lenders (bonds, or debt securities). Owning equity in a company is perhaps the most visible and accessible means by which wealth is created. Individual investors become owners of a publicly traded company by buying stock in that company. In so doing, they can participate in the company's growth over time and, in many cases, receive a share of the company's profits in the form of dividends.

LESSON 1.1: EQUITY SECURITIES

LO 1.a Describe the characteristics of equity securities.

Characteristics of Equity Securities

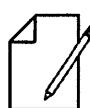
In the simplest terms, a **security** is an investment that represents either an ownership stake or a debt stake. An investor becomes part owner in a corporation by buying shares of the company's stock. A debt security is usually acquired by buying an issuer's (a corporation or a government) bonds. A debt investment is a loan to the issuer in exchange for interest income and the promise to repay the loan at a future maturity date. It does not confer ownership (equity) as does the purchase of stock.

When investors become owners of a corporation by purchasing stock in that company, they can participate in the company's prosperity by sharing in earnings through the receipt of dividends and, particularly in the case of common stock, benefit from an increase in the price of the shares.

Common Stock

Common stock is equity (ownership) in a corporation. A company issues stock to raise capital, and investors who buy the stock are buying a share of ownership in the company. The exam will deal with stock that has been issued to the public. That process will be explained in Unit 8. In Unit 7, we will show you that whatever a business owns (its assets) less its creditors' claims (its liabilities) is the net worth of the enterprise and belongs to the owners (its stockholders).

Each share of stock entitles its owner to a portion of the company's earnings and dividends and a proportionate vote in major management decisions. Most corporations are organized in such a way that their common stockholders regularly vote for and elect a few individuals to a **board of directors** to oversee company business. By electing a board of directors, these stockholders have a say in the company's management but are not involved in the day-to-day details of its operations.



EXAMPLE

If a corporation issues 100 shares of stock, each share represents an identical 1/100—or 1%—ownership position in the company. An investor who owns 10 shares of stock would own 10% of the company; an investor who owns 50 shares of stock would own 50% of the company.

Corporations may issue two types of stock: **common** and **preferred**. When speaking of stocks, people generally mean common stock. **Preferred stock** also represents equity (ownership) in a corporation but usually does not have the same voting rights or appreciation potential as common stock. Preferred stock normally pays a fixed dividend, usually quarterly, and has **priority claims** over common stock. That is, common stockholders cannot receive a dividend until the preferred shareholders have been paid theirs and, in the event the company goes bankrupt, preferred stockholders have a prior claim on any remaining assets.

Preferred Stock

Preferred stock is an equity security because it represents a class of ownership in the issuing corporation. However, it does share some characteristics with a debt security. As we will learn in the next unit, just as with debt securities, the rate of return on a preferred stock is fixed rather than subject to variation as with common stock. As a result, its price tends to fluctuate with changes in interest rates rather than with the issuing company's business prospects unless, of course, dramatic changes occur in the company's ability to pay dividends. This concept, known as interest rate or money rate risk, will be covered in the next unit as well as Unit 19.



TAKE NOTE

Unlike common stock, most preferred stock is nonvoting. Therefore, unless stated otherwise in a question, preferred stock doesn't have voting rights.



TEST TOPIC ALERT

Like common stock, preferred stock represents ownership in a company, but its price reacts to the market more like a bond because, with its fixed dividend payment, it is price sensitive to interest rate changes.



PRACTICE QUESTION

Holders of each of the following are creditors **except**

- A. investors owning preferred stock.
- B. investment companies owning corporate bonds.
- C. corporations owning municipal bonds.
- D. states owning U.S. government bonds.

Answer: A. Remember, all stockholders (even preferred stockholders), not creditors, are owners of a corporation. When it comes to bonds, regardless of the nature of the owner, it is always a debt security, and that makes the owners creditors.

LO 1.b Identify the basic features of common stock.

Common Stock Features

Growth (Capital Gains)

An increase in the market price of securities is **capital appreciation**. Historically, owning common stock has provided investors with returns in excess of the inflation rate. For this reason, most investors with a long-term investment horizon have included common stock in their portfolios as a hedge against inflation. Of course, it must be mentioned that stock prices can decline, particularly over the short run.



EXAMPLE

An investor bought shares of RST for \$60 per share on January 1, 2022. On December 31, 2022, the shares were worth \$90, an increase of 50% in the market price.

Income

Many corporations pay regular quarterly cash dividends to stockholders. A company's dividends, in the case of common stock, may increase over time as profitability increases. Dividends, which can be a significant source of income for investors, are a major reason many people invest in stocks. Because stock is an equity security, unlike interest payments on debt, dividends are not obligatory and are declared at the discretion of the company's board of directors.

Issuers may also pay **stock dividends** in additional shares of common stock in the issuing company, or **property dividends**, shares in a subsidiary company, or in company products.



EXAMPLE

RST paid a dividend of \$2 per share during 2022, which provided the investor with a dividend yield of 3.3% ($\$2 \div \$60 = 3.33\%$) in addition to the \$30 price appreciation.



TAKE NOTE

The increase in the price of RST stock in the example above is an **unrealized gain** until the stock is sold; when the stock is sold, the price increase becomes a **realized gain**. Capital gains are not taxed until they are realized. Under current tax law, most dividends and long-term capital gains are taxed at a rate not in excess of 15%. Taxation will be covered in more detail in Unit 15.

Definition: stock dividend. One option a corporation has is to pay common stockholders a dividend in additional shares of the stock. This saves the cash that would be used in a normal dividend while giving stockholders something at no cost. For example, if an investor owned 100 shares of the stock and the company declared a 20% stock dividend, that investor would receive 20 additional shares, bringing the total holding up to 120 shares. There are two important facts to know:

- As a result of the additional shares being distributed where the company receives no new money, the price of the stock will drop so that the overall value remains the same. Using our numbers from above, if, prior to the distribution, the market price was \$48 per share, the investor has \$4,800 worth of stock. After the stock dividend is paid, the investor still has \$4,800 of stock, but now owns 120 shares. That would make the current market price approximately \$40 per share (\$4,800 divided by 120).
- Stock dividends are not taxed when received. As you will learn in Unit 15, they are not taxed until sold and have the effect of reducing the investor's cost basis per share.

Do not confuse a stock dividend with a **stock split**. A split is an accounting process whereby the corporation exchanges new shares for old ones while changing the number of shares outstanding in the marketplace. For example, in a 2-for-1 stock split, the investor now owns twice as many shares worth half as much each. Conceptually, it is the same as changing large bills for small ones. If you had a \$20 bill and changed it for two \$10 bills, in essence, you've just had a 2-for-1 split. Do you have any more money? No, just two bills worth the same as the previous one. If you changed your \$20 bill for four \$5 bills, it would be the equivalent of a 4-for-1 split.

Rights of Stockholders

As mentioned earlier, common stockholders have the right to vote for the corporation's board of directors at the corporation's annual meeting. Stock, whether common or preferred, is freely transferable (permission of the company is not required) to anyone who wants to buy

it or receive it as a gift. Without this feature, there would be no stock markets. The owner (or broker-dealer holding the stock) sends the stock certificate to the issuer's *transfer agent* with instructions to issue a certificate in the new owner's name. The concept is similar to transferring title when you sell a car. Because of the opportunities for fraud, transfer agents (usually large commercial banks) must be registered as such with the Securities and Exchange Commission (SEC) under the Securities Exchange Act of 1934. Shareholders also have the right to receive an audited set of financial statements of the company's performance each year (annual reports). Common, but not preferred, stockholders usually have the preemptive right to maintain their proportionate share of ownership in the corporation. The word *preempt* means to put oneself in front of another. We will have a further discussion on preemptive rights in Unit 4.

PRACTICE QUESTION



Which of the following statements regarding rights is **true**?

- A. Common stockholders would not generally receive preemptive rights.
- B. Preferred stockholders would not generally receive preemptive rights.
- C. Both common and preferred stockholders would generally receive preemptive rights.
- D. Neither common nor preferred stockholders would generally receive preemptive rights.

Answer: B. Preferred stockholders have no right to maintain a percentage of ownership when new shares are issued (no preemptive rights). However, they do receive preference in dividend payment and company liquidation.

TEST TOPIC ALERT



Prior to a vote or a payment of dividend, the company establishes a record date. This is the date by which an investor must be an owner of record (shown as an owner on the company's records) in order to vote or receive the announced dividend.

Limited Liability

One of the most important features of equity ownership (common stock or preferred stock) is **limited liability**. In the event of the bankruptcy of a corporation, when corporate assets are not adequate to meet corporate obligations, the stockholder's personal assets are not at risk. One cannot be forced to sell any personal assets to help pay the debts of the business.

An individual investing \$5,000 in the stock (common or preferred) of a corporation that goes bankrupt may lose the entire \$5,000 if the company is not salvaged but will not be forced to pay out any more money to take care of the corporation's debts. That investor is personally at risk only for the amount that was invested. This is different from a business organized as a sole proprietorship or partnership, where the owner's personal assets are placed at risk should the business not be able to pay off its obligations. This concept will be discussed later, in Unit 16.

Liquidity

In almost all cases, shares of common and preferred stock are freely transferrable. That means that shareholders do not need the permission of the issuer, or anyone else, in order to sell their stock in the open market. This is especially true in the case of shares traded on the major stock exchanges. One exception is restricted stock (covered shortly) where sales are contingent upon meeting the requirements of SEC Rule 144.

Benefits and Risks of Owning Common Stock

Regardless of their expectations, investors have no assurances that they will receive the returns they expect from their investments, so the risks must be balanced against the rewards.



TAKE NOTE

In owning common equity, the investor stands to lose current income through dividend reduction or suspension, as well as capital loss, should the market price decline. In return, however, the shareholder has limited liability; that is, the liability is limited to the amount invested and theoretically unlimited potential for future price appreciation and/or dividend growth.

In summation, why would you include common stock in a client's portfolio?

- Potential capital appreciation
- Income from dividends
- Hedge against inflation

By including common stock in a portfolio, the client would be incurring the following risks:

Market Risk

The chance that a stock will decline in price is one risk of owning common stock (known as **market risk**). A stock's price fluctuates daily as perceptions of the company's business prospects change and influence the actions of buyers and sellers. Investors have no assurance whatsoever that they will be able to recoup the investment in a stock at any time.

Business Risk

A risk of common stock ownership is the possibility of a decline in the company's earnings. This could lead to a reduction or even elimination of the dividend.

Low Priority at Dissolution

If a company enters bankruptcy, the holders of its bonds and preferred stock have priority over common stockholders. A company's debt and preferred shares are considered **senior securities**. Common stockholders have **residual rights** to corporate assets upon dissolution.



PRACTICE QUESTION

Limited liability regarding ownership in a U.S. corporation means all of the following **except**

- A. investors might lose more than the amount of their investment.
- B. investors might lose their investment.
- C. creditors of the corporation cannot seek relief from the shareholders.
- D. investors are not liable to the full extent of their personal property.

Answer: A. An advantage of owning stock is that an investor's liability is limited to the amount of money invested when the stock was purchased.

LO 1.c Recognize the different types of preferred stock.

There are several different types of preferred stock, starting with straight preferred (think of “plain vanilla”) and expanding depending on which and how many adjectives we use to describe the security. However, all maintain preference over common stock. Remember, preferred stock is an equity security and, just as with common stock, dividends are paid at the discretion of the board of directors. Because, with one exception noted below, those dividends are fixed, many investment professionals consider this a fixed-income investment for asset allocation purposes. Those dividends are either a stated amount (\$6 preferred) or a percentage or par value (\$100 par, 6% preferred). What is special about preferred stock is that a dividend can never be paid to the common stockholders unless the preferred is satisfied first. Preferred stock may have one or more of the following characteristics:

Straight (Noncumulative)

Straight preferred stock has no special features beyond the stated dividend payment. Missed dividends are not paid to the stockholder.

Cumulative Preferred

Cumulative preferred stock accrues payments due its shareholders in the event dividends are reduced or suspended. Dividends due cumulative preferred stock accumulate on the company's books until the corporation's board of directors decides to pay them. When the company resumes dividend payments, cumulative preferred stockholders receive current dividends plus the total accumulated dividends—dividends **in arrears**—before any dividends may be distributed to common stockholders.



EXAMPLE

In 2016, RST Corp. had both common stock and cumulative preferred stock outstanding. For the year, the common stock paid total dividends of \$1, and the total preferred dividend was \$2. Because of financial difficulties, the company stopped paying dividends after 2016. Having resolved its problems in 2021, the company resumed dividend payments and paid the cumulative preferred holders an \$8 dividend for the arrearage in years 2017, 2018, 2019, and 2020 plus the current year's (2021) \$2 dividend before paying any dividends to the common stockholders.



TEST TOPIC ALERT

Because of this unique feature found only with cumulative preferred stock, an investor seeking steady income would find this to be the most suitable of the different types of preferred stock.

Callable Preferred

Corporations often issue **callable** (or **redeemable**) **preferred stock**, which a company can buy back from investors at a stated price after a specified date. The right to call the stock allows the company to replace a relatively high fixed dividend obligation with a lower one when the cost of money has gone down. This is similar to refinancing a mortgage.

When a corporation calls a preferred stock, dividend payments cease on the call date. In return for the call privilege, the corporation may pay a premium exceeding the stock's par value at the call, such as \$103 for a \$100 par value stock. Issuing the call can create a problem for your client who purchased callable preferred shares issued at a time when market conditions dictated relatively high dividend rates. If the cost of new money comes down, the company will call in the preferred and the investor will now have to reinvest the proceeds at a lower rate. This is an example of reinvestment risk.

Having the call price at a premium over par is one way to compensate for this additional risk (and inconvenience). Another is that the dividend rate on callable preferred stock is generally a bit higher than other preferred stock issued by the corporation.

Convertible Preferred

A preferred stock is **convertible** if the owner can exchange the shares for a fixed number of shares of common stock of the issuing corporation.



TAKE NOTE

Because the value of a convertible preferred stock is linked to the value of a common stock, the convertible's preferred price tends to fluctuate in line with that of the common.

Convertible preferred is generally issued with a lower stated dividend rate than nonconvertible preferred of the same quality because the investor may have the opportunity to convert to common shares and enjoy greater capital gain potential. This feature can have the effect of reducing the interest rate risk. The concept of a convertible security will be discussed in greater detail later in the next unit when we cover convertible bonds.

Adjustable-Rate Preferred

Some preferred stocks are issued with adjustable (or *floating*) dividend rates. Such dividends are usually tied to the rates of other interest rate benchmarks, such as Treasury bills and money market rates, and can be adjusted as often as monthly. The decision as to the frequency of adjustment is that of the issuing corporation and is not a testable topic. Because the payment adjusts to current interest rates, the price of the stock remains relatively stable. This adjustability tends to reduce interest rate risk when compared to other preferred shares.



TEST TOPIC ALERT

For investors looking for fixed income through preferred stocks, adjustable rate would be their least appropriate choice because the dividend will likely fluctuate.



TAKE NOTE

A preferred stock could be cumulative and callable, callable and convertible, or any combination of these adjectives. If none are listed, it is just a straight preferred.



TEST TOPIC ALERT

Because the primary objective met by investing in preferred stock is income, when analyzing a specific preferred stock, the most important determination should be the ability of the company to meet its dividend payments.

PRACTICE QUESTION

An investor who has purchased preferred stock with the goal of receiving steady quarterly income would be most interested in the

- A. seniority of the stock compared to other securities.
- B. ability of the company to continue paying the stated dividend.
- C. voting power of the shares.
- D. par value of the shares.

Answer: B. Investors in preferred stock with the goal of income are most concerned that the company will be able to sustain the dividend, making choice **B** the correct answer. For exam purposes, all preferred stock is nonvoting, and it makes no difference if the par value is \$10, \$25, or \$100 because the dividend is fixed as a percentage return. The fact that the preferred stock has seniority over the common is important, but that concept is included in the ability of the company to pay its dividend.

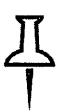
**Benefits and Risks of Owning Preferred Stock**

In summation, why would you include preferred stock in a client's portfolio?

- Fixed income from dividends
- Prior claim ahead of common stock
- Convertible preferred sacrifices income in exchange for potential appreciation

When investing in preferred stock, the client would be incurring the following risks:

- Market risk—in an economic downturn, fear of an inability to maintain the dividend will cause the price to drop
- Possible loss of purchasing power
- Interest rate (money rate) risk
- Business difficulties leading to possible reduction or elimination of the dividend and even bankruptcy leading to loss of principal

**TAKE NOTE**

Although it is generally regarded as a fixed-income investment, preferred stock, unlike debt securities, usually has no preset date at which it matures and no scheduled redemption date. Preferred stock is thus a perpetual security.

**KNOWLEDGE CHECK 1.1**

1. Owners of a corporation's equity securities
 - A. are always assured dividends if the company is profitable.
 - B. are creditors of the corporation.
 - C. have limited liability.
 - D. have the right to vote their shares.

2. Among the benefits of owning common stock are
 - I. historical hedging against inflation.
 - II. voting rights.
 - III. access, as owners, to information about corporate earnings before the general public.
 - IV. dividends.
 - A. I and II
 - B. I, II, and IV
 - C. II and IV
 - D. I, II, III, and IV
3. A company that has issued cumulative preferred stock
 - A. pays past and current preferred dividends before paying dividends on common stock.
 - B. pays the preferred dividend before paying the coupons due on its outstanding bonds.
 - C. pays the current dividends on the preferred, but not the past dividends on the preferred, before paying a dividend on the common.
 - D. forces conversion of the preferred that is trading at a discount to par, thereby eliminating the need to pay past-due dividends.

LESSON 1.2: SPECIAL TYPES OF EQUITY SECURITIES

Most of the questions on the exam deal with securities purchased by investors. There are, however, a few questions where stock in a corporation is purchased from the company by its employees through the granting of stock options.

LO 1.d Describe how incentive stock options differ from nonqualified stock options.

Employee stock options offer employees the right to purchase a specified number of shares of the common stock of their employer at a stated price over a stated time period. Unlike qualified retirement plans (discussed in Unit 18), there are no nondiscrimination requirements for these plans. For publicly traded stock, the strike price (also called the grant or exercise price) is usually the market price of the stock at the time the option is granted. In most cases, there is a minimum time the employee must remain with the company in order to be able to use the option (the vesting period). The hope of the employee is that the market price of the employer's stock will increase in value. Then, the employee will be able to purchase the stock by exercising the option (purchasing the stock) at the lower strike price and then sell the stock at the current market price. There are two principal kinds of stock option programs, each with its own rules and tax consequences: nonqualified stock options (NSOs or NQSOs) and incentive stock options (ISOs). Don't confuse these with publicly traded puts and calls described later in Unit 4—these are available only to employees of the issuing company. Most states require that the stock option plan be approved by the board of directors.

Nonqualified Stock Options (NSOs)

These are the more common of the two varieties of employee stock options. NSOs are basically treated as a form of compensation. When NSOs are exercised, the difference between the current market price at the time of exercise and the strike price, referred to as the *bargain element*, is reported as wages on the tax returns of the employer and the employee. Therefore,

instead of capital gains treatment, the employee is taxed as ordinary income on that bargain element while the company receives a tax deduction as salary expense for that same amount.



EXAMPLE

An employee exercises an NSO at \$52 per share when the current fair value of the stock is \$66.50. The bargain element is \$14.50 per share (the difference between the exercise price of \$52 and the fair value of \$66.50). If the exercise was for 100 shares, this employee will report \$1,450 as ordinary income for the year, and the corporation treats that as deductible salary expense. When that stock is sold, the employee's cost basis is the total of the exercise price plus the already taxed salary.



TAKE NOTE

Because the spread between the market price and the strike price is considered salary, it is subject to payroll taxes as well as income tax.

Incentive Stock Options (ISOs)

Unlike the NSO, there are generally no tax consequences to the employer with an ISO, but, if done properly, they can be more advantageous to the employee than NSOs. As mentioned above, the employee's profits from NSOs are taxed as ordinary income. However, as long as stock purchased through exercise of an ISO is held at least two years after the date of the grant and one year after the date of exercise, any profits are reported as long-term capital gains. If these time limits are broached, the ISO is taxed like an NSO. There is one other time stipulation—there is a maximum 10-year limit for exercise.

But there is a catch. When an ISO is exercised, the difference between the market value at the time of purchase and the strike price is a preference item used in calculating the alternative minimum tax (AMT) (covered in Unit 15).

Incentive Stock Options (ISOs)

No income recognized when option is granted

No tax due when option is exercised

Tax is due when stock is sold

- Gain is capital (long term) if held at least one year and sold at least two years after grant
- Otherwise, ordinary income

Difference between option price and the fair market value (FMV) on date of exercise is an add back for AMT purposes



EXAMPLE

Julie's employer grants her an incentive stock option (ISO) on January 1, 2012, with an exercise (strike) price of \$25 per share. Julie exercises the option on January 1, 2013, when the market price of the stock is \$40 per share. Because this is an ISO and the stock has not yet been sold, there is no "salary" income or capital gains taxation. There is a \$15 per share adjustment for purposes of computing the AMT (the bargain element difference between \$25 and \$40), but it is unlikely that the exam will ask anything beyond knowing that ISOs can be subject to AMT.

Julie sells the stock two years later for \$60 per share. Now that the sale has been recognized and Julie has followed the required holding periods, the \$35 per share profit is taxed as a long-term capital gain. There will also be an adjustment to the AMT, but that is beyond the scope of the exam.

LO 1.e Contrast restricted stock and nonrestricted stock.

At the beginning of this unit, we stated that one of the characteristics of stock is that it is freely transferable. That is, once purchased, it may be sold (or gifted) at any time to anyone. As is the case with most of this course, there are exceptions. The two that are testable deal with the sale of stock that is restricted and the stock owned by control persons.

In Unit 8 of this course, we will discuss the exemption from registration for securities sold as part of a private placement (the limited offering exemption). In general, retail investors cannot sell these securities until having held them for a certain period of time; they are *restricted* from immediate resale and, therefore, are referred to as **restricted securities**. The length of that restriction is generally *6 months*, and there are volume restrictions as well that apply to those who are affiliates of the issuer. You probably will not be tested on those; just know that restricted stock has a time limit for all investors and may also have a volume limit for affiliates on the amount that may be resold.

The other case is with control stock. **Control stock** is stock held by a control person. What makes it control stock is who owns it, not how it was acquired. For purposes of this discussion, a **control person** is a corporate director, an officer, a large stockholder, or the immediate family of any of the preceding residing in the same home. They are generally referred to as affiliates because of their unique status within the issuer. In general, purchases and sales of control stock must be reported to the SEC. Control stock always has volume limits (those numbers are not tested).

**TAKE NOTE**

For testing purposes, assume that ownership consisting of **10% or more** of the voting stock is considered control.

The mechanism for reporting the sale of control stock as well as the sale of restricted stock is found in SEC Rule 144 of the Securities Act of 1933. SEC Rule 144 was created so that certain resales of already existing securities could be made without having to file a complete registration statement with the SEC. The time and money involved in having to file such a registration are usually so prohibitive as to make it uneconomical for the individual seller. In almost all cases, those who wish to sell control stock or restricted stock must do so by filing a Form 144.

**PRACTICE QUESTION**

An investor owns 15% of the stock of a publicly traded company. This investor's spouse owns 5% of the stock of the same company. If the spouse wishes to sell the shares representing that 5% ownership, which of the following statements are **true**?

- I. Both the investor and the spouse are control persons.
- II. The investor is a control person, while the spouse is not.
- III. The spouse must file a Form 144.
- IV. The investor must file a Form 144.
A. I and III
B. I and IV
C. II and III
D. II and IV

Answer: A. The investor's 15% ownership is control. Rule 144 includes in the definition of control person "any relative or spouse of such person, or any relative of such spouse, any one of whom has the same home as such person." Unless stated to the contrary, the assumption on the exam is that spouses reside together, making both of them control persons. All sales of control stock (unless an exemption applies) must be accompanied by a Rule 144 filing on Form 144 by the selling party. Although both are control persons, the spouse is the only one selling and, therefore, the one required to file.

KNOWLEDGE CHECK 1.2



1. Four years ago, Susan was granted enough nonqualified stock options (NQSOs) to purchase 500 shares of her employer's stock at \$20 per share. Assuming Susan exercises all of her options when the fair market value of the stock is \$30 per share and her ordinary income tax rate at the time is 28%, how much income tax will be due?
 - A. \$280
 - B. \$1,400
 - C. \$5,600
 - D. \$8,400
2. Which of the following statements about restricted stock is **correct**?
 - A. It must be held a minimum of one year before resale.
 - B. Sales must be accompanied by Form R.
 - C. Volume limits generally apply to sales by control (affiliated) persons.
 - D. The restrictions apply only to those defined as control persons.

LESSON 1.3: FOREIGN EQUITY SECURITIES

LO 1.f Identify the unique features of American depositary receipts (ADRs) and the risks of investing in foreign securities.

American Depositary Receipts (ADRs)

ADRs, also known as **American depositary shares (ADSs)**, facilitate the trading of foreign stocks in U.S. markets because everything is done in English and in U.S. dollars. ADRs are bought and sold (traded) in U.S. dollars, and dividends are paid out in U.S. dollars.

An **ADR** is a negotiable security that represents a receipt for shares of stock in a non-U.S. corporation. ADRs are bought and sold in the U.S. securities markets like any domestic stock.

An ADR may represent the underlying shares on a one-for-one basis or may represent a fraction of a share or multiple shares. For example, for one company, an ADR may represent several shares of the underlying security, while for another company, an ADR may represent a fraction of the underlying security. The use of a ratio, or participation rate, allows ADRs to be priced at an amount more typical of U.S. market share prices.



EXAMPLE

At the time of this printing, one U.S. dollar (USD) was worth about 5.5 Brazilian reals (BRs). A Brazilian corporation's ADRs might be structured on a ratio of 1:5. That is, each ADR is equivalent to owning five shares of the underlying stock. Therefore, if the ADR was trading at \$10, the investor would be paying approximately 55 BRs for five shares of the Brazilian stock. The math is not tested; only the concept that ratios other than 1:1 exist with some ADRs is tested.

Rights of ADR Owners

Most of the rights that common stockholders normally hold, such as the right to receive dividends, also apply to ADR owners. In some, but not all, cases, there are also voting rights. For purposes of the exam, ADRs never have preemptive rights.

Risks of ADRs

In addition to the normal risks associated with stock ownership, ADR investors are also subject to currency risk. **Currency risk** is the possibility that an investment denominated in one currency (such as the Mexican peso) could decline if the value of that currency declines in its exchange rate with the U.S. dollar. Because ADRs represent shares of stock in companies located in foreign countries, currency exchange rates are an important consideration.



TAKE NOTE

The banks collect the dividend payments, convert them into U.S. funds for U.S. owners, and withhold any required foreign tax payments. Owners of ADRs can claim a U.S. tax credit for these withholdings.



TEST TOPIC ALERT

The exam will want you to know that ADRs are issued by domestic branches of U.S. banks and that, even though they are traded in U.S. dollars, they still bear currency risk.

Investing in Foreign Markets

Although foreign securities offer investors the potential for substantial gains, they bear a variety of risks that are not present with domestic investments. There are two broad market classifications of foreign markets: emerging and developed.

Emerging Markets

Emerging markets are markets in less-developed countries. They are generally associated with:

- low levels of income, as measured by the country's **gross domestic product (GDP)**;
- low levels of equity capitalization;
- questionable market liquidity;
- potential restrictions on currency conversion;
- high volatility;

- prospects for economic growth and development;
- stabilizing political and social institutions;
- high taxes and commission costs for foreign investors;
- restrictions on foreign ownership and on foreign currency conversion; and
- lower regulatory standards resulting in a lack of transparency.

Despite primitive market infrastructures, many emerging markets have rapid growth rates that make their securities attractive to foreign investors whose local markets experience more modest growth.



TAKE NOTE

There is a term that has not yet appeared on the exam but may during the life of this edition. That term is **frontier market**. One could say that frontier markets are to emerging markets as emerging markets are to developed ones. The risks here are extremely high.

Developed Markets

Developed markets are those associated with countries that have highly developed economies with stable political and social institutions. These are characterized by:

- large levels of equity capitalization;
- low commission rates;
- few, if any, currency conversion restrictions;
- highly liquid markets with many brokerage institutions and market makers;
- many large capitalization securities; and
- well-defined regulatory schemes leading to transparency similar to that enjoyed by those investing in U.S. securities.

In summation, why would you include foreign securities in a client's portfolio?

- You have expanded the potential investment universe leading to greater diversification.
- Foreign securities sometimes outperform domestic ones.
- Foreign securities are usually not highly correlated with domestic ones (correlation will be covered in Unit 20), and, as a result, the overall risk of the portfolio is reduced.

Risks of Investing in Foreign Markets

In doing so, whether investing in the securities of emerging or developed foreign markets, the investor faces, in addition to the normal risks involved in investing, the following risks not present in domestic investing:

- Country risk
- Exchange controls
- Currency risk
- Withholding taxes and fees

Country Risk

Country risk is a composite of all the risks of investing in a particular country. These may include political risks, such as revolutions or military coups; and structural risks, such as confiscatory policies toward profits, capital gains, and dividends. Economic policies, interest rates, and inflation are also elements of risk of investing in emerging countries.

Exchange Controls

Foreign investors can also be subject to restrictions on currency conversion or movement.

Withholding, Fees, and Taxes

Some foreign countries may withhold a portion of dividends and capital gains for taxes. Some also impose heavy fees and taxes on securities that the investor must bear in addition to generally higher brokerage commissions.



TAKE NOTE

We will return to some of these risks again in Unit 19.



KNOWLEDGE CHECK 1.3

1. ADRs are used to facilitate
 - A. foreign trading of domestic securities.
 - B. foreign trading of U.S. government securities.
 - C. domestic trading of U.S. government securities.
 - D. domestic trading of foreign securities.
2. Which two of the following risks would be of greatest concern to the holder of an ADR?
 - I. Currency
 - II. Liquidity
 - III. Market
 - IV. Purchasing power
 - A. I and II
 - B. I and III
 - C. II and IV
 - D. III and IV

KNOWLEDGE CHECK ANSWERS

Knowledge Check 1.1

1. **C** One of the benefits of being an owner of a corporation's equity securities is limited liability. That means, no matter what happens to the company's fortunes, the investor can never lose more than the original investment. The company's creditors cannot come after the stockholders and make a claim. Although owners of common stock always have voting rights, owners of preferred stock (the other equity security) almost never do. Dividends are not guaranteed, and even if the company shows a large profit, there is no obligation to make a dividend payment. Remember, as holder of a company's equity securities, one is an owner, not a creditor.

LO 1.a

2. **B** One does not have access to insider information solely by becoming a shareholder. Even if one did receive material nonpublic information, such as prior access to earnings, no benefit may be received from that information. All of the other choices are among the reasons to purchase common stock.

LO 1.b

3. **A** The concept behind cumulative preferred stock is that dividends in arrears "accumulate" and must be paid, along with the current year's dividend, before anything can be paid to common stockholders. Bond interest is always paid before dividends.

LO 1.c

Knowledge Check 1.2

1. **B** The exercise cost of the NQSO is \$10,000 ($500 \text{ shares} \times \20 per share). She will have to pay ordinary income taxes of \$1,400 on the bargain element [$(\$30 \text{ FMV} - \$20 \text{ exercise price}) \times 500 \text{ shares} \times 28\%$]. In addition, that \$5,000 bargain element will also be subject to the same payroll taxes as her regular salary (e.g., Social Security tax).

LO 1.d

2. **C** All purchasers of restricted stock generally have a holding period requirement of six months, not one year. When reselling that stock, the sale must be accompanied by Form 144. Once the six months is over, nonaffiliated persons have no further restrictions, while control (affiliates) generally have a volume limit.

LO 1.e

Knowledge Check 1.3

1. **D** Because everything is in U.S. dollars and in English, ADRs make trading in foreign securities much easier for those who live here.

LO 1.f

2. **B** ADRs represent ownership in a foreign security, so there is always going to be currency risk (I). These ADRs trade in the market and have market risk (III). Because most ADRs are traded on the exchanges, there is little liquidity risk and, because they represent equity, they are usually a good hedge against inflation.

LO 1.f

UNIT 2

Types and Characteristics of Fixed-Income (Debt) Securities

LEARNING OBJECTIVES

When you have completed this unit, you will be able to accomplish the following.

- › LO 2.a **Recognize** the characteristics common to most bonds.
- › LO 2.b **Identify** the relevance of a bond's rating.
- › LO 2.c **Calculate** the price of a bond.
- › LO 2.d **Calculate** the parity price of a convertible bond.
- › LO 2.e **Compare** current yield, yield to maturity, and yield to call.
- › LO 2.f **Recognize** the unique features of U.S. government and agency issues.
- › LO 2.g **Differentiate** between secured and unsecured corporate debt.
- › LO 2.h **Recall** the unique features of municipal bonds, including the calculation of tax-equivalent yield.
- › LO 2.i **Identify** the advantages and disadvantages of investing in foreign debt securities.
- › LO 2.j **Recall** the methods of repayment of principal.
- › LO 2.k **Identify** the special characteristics of money market instruments and the risks and benefits of adding them to a client's portfolio.

Your exam will include approximately five questions from the topics covered in Unit 2.

INTRODUCTION

In addition to raising capital through the issuance of equity securities (stock), many corporations fund their business efforts through borrowing by issuing debt securities. Long-term borrowing is usually in the form of bonds and unsecured debt instruments (*debentures*, covered at LO 2.g), while cash equivalents, such as commercial paper and Treasury bills, are the primary source of short-term financing for corporations and the U.S. government. Governmental bodies can only issue debt securities (you cannot buy stock in the U.S. Treasury or your state).

LESSON 2.1: BONDS AS FIXED-INCOME SECURITIES

Debt capital represents money loaned to an issuer by investors purchasing that issuer's bonds. A **bond** represents the issuer's indebtedness. An investor purchasing a bond is lending the issuer money for a set period of time at a fixed annual interest rate. That rate is frequently referred to as the *coupon* rate because, years ago, bonds were issued with detachable coupons that were presented for collection of the interest. That is no longer the case, but the term *coupon* is still in common use.

There are three major issuers of debt securities. The largest issuer of debt securities is the U.S. government. Corporations issue bonds to finance their operations, and substantial sums are also borrowed by state governments and those political entities that are subdivisions of a state, such as cities, counties, towns, and so forth. These issues from state and local political entities are called **municipal bonds**.

Let us begin this adventure by explaining the characteristics common to most bonds.

LO 2.a Recognize the characteristics common to most bonds.

There is, in essence, a contract between the borrower (the issuer) and the lender (the investor). The terms of the loan are expressed in a document known as the bond's **indenture**. The indenture, sometimes also referred to as the deed of trust, states the issuer's obligation to pay back a specific amount of money on a specific date. The indenture also states the issuer's obligation to pay the investor a specific rate of interest for the use of the funds as well as any collateral pledged as security for the loan and all other pertinent details.

It is important to understand that debt capital refers to **long-term debt financing**. Long-term debt is money borrowed for a minimum of 5 years, although more frequently the length of time is 10–30 years.

Bond Characteristics

Inverse Relationship Between Interest Rates and the Price of Debt Securities

In the previous unit, we mentioned that the market price of preferred stock fluctuates inversely with current interest rates. Later on in this unit, when we discuss the math behind yields, this topic will be easier to follow. At this point, we want you to know that whenever interest rates in the market (the current cost of borrowing money) go up, the price of outstanding debt securities goes down. Likewise, if interest rates fall, the price of outstanding debt securities will rise. That is what interest rate risk is all about.



TAKE NOTE

Although the market price of the debt security will fluctuate, the interest payments stay the same.

Structure

There are certain structural components common to most debt securities.

Negotiability

Like stock, bonds are readily transferrable. This enables investors to sell their bonds before maturity date. As just stated with interest rate risk, the price received may be more or less than the face value. Other factors can also come into play, such as a change in the safety of the bond (this will be covered when we get to ratings).

Specified Maturity Date

Debt securities are redeemed (paid back) by the issuer on a specified maturity date. In the case of money market instruments, that can be as short as one day. It is never longer than 1 year. Bonds have longer maturities. As previously stated, those can be as short as 5 years, but more often are 10–30 years.

Payment of Interest

In the case of bonds, interest is generally paid semiannually based on a stated coupon rate. Unlike dividends on stock, which are determined by the company's board of directors and can be skipped or reduced if financial conditions are unfavorable, interest on debt securities is an obligation. Failure to pay the interest (or principal) as scheduled could lead to foreclosure or bankruptcy proceedings. No company ever went bankrupt because it could not pay a dividend on its equity securities. Just like individuals, failure to meet your debt obligations can lead to real trouble. Another important fact about interest: in the case of corporate debt, it is a pre-tax expense, deductible from income like the interest on your home mortgage—unlike dividends, which are paid from net income (after tax).

In the case of money market instruments, they are issued at a discount to their face value with the difference paid at maturity representing the interest. In Lesson 2.7, we will get into more detail on this.

Accrued Interest

What happens to an investor who sells a bond before the semiannual interest payment date? The buyer pays the seller the amount of interest that has accrued since the last interest payment. Then, on the next payment date, the new owner receives the full six months of interest.

Most bonds trade **and interest**, meaning a buyer pays a seller a bond's market price plus any accrued interest since the last interest payment. The buyer receives the full amount of the next interest payment, including interest that accrued while the seller owned the bond.

LO 2.b Identify the relevance of a bond's rating.

Rating Services

The purchase of a debt security is only as safe as the strength of the borrower. Also taken into account is the presence or absence of any collateral (just as when you want to borrow money). Because safety of the bond will frequently be a very important consideration for clients, most investors consult the rating services. The two primary rating organizations for debt securities are Standard & Poor's and Moody's. Both organizations have highly qualified personnel who analyze all the details of the debt issue and arrive at a letter rating indicating their opinion of

the debt's quality (safety). The following chart should give you all the information you need for the exam.

Standard & Poor's Bond Ratings		Moody's Ratings
AAA	Bonds of highest quality	Aaa Bonds of highest quality
AA	High-quality debt obligations	Aa Bonds of high quality
A	Bonds that have a strong capacity to pay interest and principal but may be susceptible to adverse effects	A Bonds whose security of principal and interest is considered adequate but may be impaired in the future
BBB	Bonds that have an adequate capacity to pay interest and principal but are more vulnerable to adverse economic conditions or changing circumstances	Baa Bonds of medium grade that are neither highly protected nor poorly secured
BB	Bonds of lower medium grade with few desirable investment characteristics	Ba Bonds of speculative quality whose future cannot be considered well assured
B	Primarily speculative bonds with great uncertainties and major risk if exposed to adverse conditions	B Bonds that lack characteristics of a desirable investment
CCC	Bonds in poor standing that may be defaulted	Caa Bonds in poor standing that may be defaulted
C	Income bonds on which no interest is being paid	Ca Speculative bonds that are often in default
D	Bonds in default	C Bonds with little probability of any investment value (lowest rating)

Note:
Plus (+) and minus (-) are used to show relative strength within a rating category.

Note:
For ratings Aa through B, 1 indicates the high end, 2 indicates the middle end, and 3 indicates the low end of the rating class.

Investment-Grade Debt

In the industry, bonds rated in the top four categories (BBB or Baa and higher) are referred to as investment grade. Investment-grade bonds are generally the only quality eligible for purchase by institutions (e.g., banks or insurance companies) and by fiduciaries and therefore have greater liquidity than lower-grade instruments.

High-Yield Bonds

Lower-grade bonds, known in the industry as junk bonds, are now more commonly called high-yield bonds. Because of their lower ratings (BB or Ba or lower) and additional risk of default, high-yield bonds may be subject to substantial price erosion during slow economic times or when a bond issuer's creditworthiness is questioned. Their volatility is usually substantially higher than investment-grade bonds, but they may be suitable for sophisticated investors seeking higher returns and possible capital appreciation from speculative fixed-income investments.

There is a critical relationship in all investments known as the risk-reward relationship. The more risk an investor takes, the greater must be the reward. The less creditworthy the borrower, the more risk to the lender, so the greater the reward the lender must receive to compensate for that risk. That is why lower-rated bonds carry higher rates of return. The higher the rating, the greater likelihood that interest and principal will be paid as scheduled. Lower ratings indicate the amount of *default* or *credit risk* being taken by the investor. Think of the ratings as reflecting the borrower's credit score, just like yours. For example, a triple A rating would be equivalent of a score in the 800's, while a BB (or Ba) rating might be somewhat lower than 600.

It is important to understand that when the raters evaluate a bond, they look at all the factors, including collateral. A mortgage bond is not necessarily safer than any debenture.



PRACTICE QUESTION

According to Standard & Poor's rating system, the 4 highest grades of bonds (from best to lowest grade) are

- A. Aaa; Aa; A; Baa.
- B. A; Aa; Aaa; B.
- C. B; A; AA; AAA.
- D. AAA; AA; A; BBB.

Answer: D. Choice A would be correct if the question referred to Moody's.



TEST TOPIC ALERT

What does it mean when a bond's rating comes under review? This is essentially the same concept as a review of your personal credit rating. Sometimes, it is just routine because the rating hasn't been reviewed in some time. More often, certain factors have arisen causing concern as to the ability of the issuer to perform.



KNOWLEDGE CHECK 2.1

1. Which of the following statements regarding bond interest is **true**?
 - A. Bond prices have an inverse relationship to interest rates.
 - B. Bond prices have a direct relationship to interest rates.
 - C. The par value of a bond will increase as market interest rates fall.
 - D. The par value of a bond will decrease as market interest rates fall.
2. A bond would be considered speculative below which of the following Moody's ratings?
 - A. A
 - B. Baa
 - C. BBB
 - D. Ba

LESSON 2.2: BOND MATH

The securities industry is about numbers, and debt securities involve more than their share. You will need to know how to figure the price of a debt security. Following that, you will learn how to arrive at the parity price of a convertible security. The final math deals with determining yield based on that price and calculating the various yields used in the bond marketplace.

LO 2.c Calculate the price of a bond.

It is important to understand how the market prices of bonds are quoted. Look at the following examples to see how corporate, municipal, and government bonds are quoted. Remember, par or face value is always \$1,000.

Pricing Corporate and Municipal Bonds

Corporate and municipal bonds are quoted as a percentage of par. Each bond point (1% of \$1,000) represents \$10, and the fractions are in eighths: each $1/8 = \$1.25$.

- A bond quoted at $90\frac{1}{4} = \$902.50$ ($90\% * \$1,000 = \$900 + \frac{1}{4} * \$10 [\$2.50] = \$902.50$).
- A bond quoted at $101\frac{3}{4} = \$1,017.50$ ($101\% * \$1,000 = \$1,010 + \frac{3}{4} * \$10 [\$7.50] = \$1,017.50$).

Pricing Treasury Securities

Government bonds are quoted as a percentage of par.

- Each point is \$10, and each 0.1 represents $1/32$ of \$10 (\$.3125). A government bond quoted at 90.8 (or 90.08) = $\$902.50$ ($90\% * \$1,000 = \$900 + 8/32$ [which is $1/4$] * \$10 [\$2.50] = $\$902.50$).
- A government bond quoted at $101.24 = \$1,017.50$ ($101\% * \$1,000 = \$1,010 + 24/32$ [which is $3/4$] * \$10 [\$7.50] = $\$1,017.50$).



TAKE NOTE

In recent years, some quote systems have added a 0 for prices between .1 and .9 to avoid confusion (similar to the way you enter the expiration date for your credit card as "01/2024" instead of "1/2024." That is why, in the example above, we show you both 90.8 and 90.08—they both mean $90\frac{8}{32}$.



EXAMPLE

When you see a corporate bond quoted at $103\frac{1}{2}$ it represents a market price of \$1,035. The 103 is 103% of \$1,000, or \$1,030, and the $1/2$ is half of a \$10 point, or \$.5. On a Treasury bond, that same price would be shown as 103.16, where the .16 is $16/32$ or $1/2$.

Bond Listings

If you were to look up a bond in the newspaper or some other source for a quote, you might see something like this: DEF 5s35 @106.

What does that mean? The DEF is the issuer, the 5 is the nominal or coupon rate, the 35 is the maturity date of 2035, and the 106 is the price (\$1,060). So, what is the “s”? It is nothing but a separation between the coupon and the maturity date.

LO 2.d Calculate the parity price of a convertible bond.

Convertible Debt Securities

The exam deals with securities that have a convertible feature. Although there may be a question on a convertible preferred stock, most of the parity questions will deal with convertible debt. Convertible debt, most often debentures, is issued by corporations only. Because they may be converted or exchanged for the company's common stock, there are no convertible municipal or government bonds. The conversion privilege is exercised at the discretion of the investor. The ratio of conversion varies from one company's bond to another according to the terms set forth in the indenture at the time the bonds are issued. The exact number of shares (or method of computing the number) that a particular bond will be convertible into at any point is printed in the bond indenture at the time of issue.

In many cases, the indenture merely tells you the number of shares into which the bond is convertible. For example, the bond may be convertible into 50 shares; thus, it would have a conversion ratio of 50:1, or 50 shares for 1 bond. If a bond is convertible into 25 shares, it would have a conversion ratio of 25:1.

Frequently, instead of telling the number of shares into which the bond is convertible, the indenture will give the conversion price. That conversion price is the price per share at which the corporation will sell their stock in exchange for the bond one is holding. Regardless of the current market price of the bond, the bond always represents a debt of the corporation of \$1,000. Therefore, if the conversion price is given, to compute the number of shares into which the bond is convertible, always divide the par value (\$1,000) by the conversion price. For example, a bond convertible at \$20 per share is convertible into 50 shares ($\$1,000 \div \$20 = 50$ shares).

If the bond has a conversion price of \$50, the conversion ratio is 20 shares ($\$1,000 \div \$50 = 20$ shares). If the JRP 6s of '41, currently selling at 120, were convertible at \$40, how many shares would one get when one converted the bond? The answer is not 30. The current market has nothing to do with the computation. The bond conversion is fixed at issuance, and the market fluctuates all the time. The correct answer is 25 shares ($\$1,000 \div \$40 = 25$ shares).

The comments we've made about convertible bonds (or convertible preferred) moving in relation to the underlying common stock is due to the concept of parity. According to the dictionary, when two things are at parity, they are equal. How does that work here? If you think about it, when holding a convertible security, we have a choice of two actions: we can either continue to hold the bond (or preferred), or we can decide to convert it into the common. If the convertible security and the common stock we would get upon conversion are worth the same, we say they are at parity.



EXAMPLE

On the exam, there may be questions on parity. Here are two methods to help you solve the problem.

RST debenture is convertible to common at \$50. If an RST bond is currently trading for \$1,200, what is the parity price of the common?

Method One: Parity means equal. Solve for the conversion ratio as follows:

Par value: \$1,000

Conversion price: \$50

Conversion ratio: 20

The parity stock price is found by dividing \$1,200 by 20. The parity price of the common is \$60. That is, if one were to convert the bond when the 20 shares received have a market value of \$60 each, the investor would have the same \$1,200 as the market value of the bond.

Method Two: If you prefer to think in percentages, identify that the current debenture's price of \$1,200 is 20% greater than the original \$1,000 price. To be at equivalence, the stock price must also increase by 20%. So, add 20% to 50, and the problem is solved. 20% of 50 is 10; $10 + 50 =$ parity price of \$60.

Here is another style of parity question.

RST debenture is convertible to common at \$50. If the common is trading for \$45, what is the parity price of the debenture? Start by solving for the conversion ratio.

Par value: \$1,000

Conversion price: \$50

Conversion ratio: 20

The debenture's parity price is found by multiplying $20 \times \$45$, which is \$900. Using the percentage method, you can determine that the market price of the common stock is 10% below that of the conversion price ($5 \div 50 = 10\%$). Reducing the debenture price of \$1,000 by 10% results in a parity price of the debenture of \$900.

It is important to remember that parity is a theoretical concept—we're looking for the price that would make the bond and stock “equal.” As a practical matter, convertible securities, whether debentures or preferred stock, almost always have a market price that is somewhat above the parity price. Conversely, the test might ask you to know that the stock trades generally a bit below the parity price.

LO 2.e Compare current yield, yield to maturity, and yield to call.

The nature of fixed income, usually being debt rather than equity, involves somewhat different methodology in determining proper valuation. After all, in most cases, these securities are purchased for their income rather than future capital appreciation. The first things we will look at are the various yield computations that are applicable to debt securities.

Yield Computations

The interest rate will always be stated as a percentage of the par value. The interest stated on the face of the bond is called the **nominal yield**. Sometimes it is referred to as the coupon rate. To compute the annual interest payments in dollars, multiply this nominal yield by the face amount of the bond (\$1,000 unless stated otherwise). A bond with a 5% coupon rate pays \$50 per year. One with an 8% nominal yield pays \$80 per year. One with a coupon of 13.5% pays \$135 per year. Because, on any particular bond, this interest payment is the same every year, it is referred to as a fixed charge.



TEST TOPIC ALERT

When a question states that a bond pays interest at a rate of 6% semiannually, it does not mean two payments of \$60 per year. The interest rate is always stated on an annual basis (\$60 per year), and it is paid twice per year, or \$30 every 6 months.

Current Yield (CY)

Investors always want to know the return on their investment. The most straightforward way to do that is to place the return on the investment as follows:

$$\frac{\text{Return}}{\text{Investment}}$$

The return will always be the annual interest in dollars (if referring to a stock, the dividend in dollars) divided by the current market price (the amount of investment required to own the security). This calculation is called current yield or current return. For example, if the annual dividend is \$3 and the stock's price is \$60, the calculation is $\$3 \div \$60 = 5\%$.

Although most bonds are issued with a face, or par, value of \$1,000, bond prices do fluctuate in the market. As stated earlier, the interest a bond pays is called its coupon rate or nominal yield. Look at this example: The DBL 10s of '39. DBL is the name of the issuer, 10s means the nominal yield is 10%, and '39 means that the bonds mature in 2039. The letter *s* is added because it is easier to say "the 10s" than to say "the 10." These bonds pay \$100 a year (\$50 semiannually) for each \$1,000 of face value. Regardless of what the market price of the bonds may be, the DBL Corporation has an obligation to pay annual interest of 10% of the \$1,000 face it borrowed.

If an investor were to buy these bonds for more than \$1,000 or less than \$1,000, the return on the investment would not be 10%. For example, if these bonds had a current market value of \$800, their current yield would be 12.5% ($\$100 \div \800). Similarly, someone paying \$1,200 for the bonds will receive a current yield of 8.33% ($\$100 \div \$1,200$). Please note that the \$100 interest received is the same in all cases regardless of the current market price.

Bond prices and yields move in opposite directions: as interest rates rise, bond prices fall, and vice versa. When a bond trades at a discount, its current yield increases; when it trades at a premium, its current yield decreases.

Discount and Premium

When a bond is selling at a price above par (or face), it is selling at a premium; when it is selling below par, it is selling at a discount. Two critical statements to remember are:

- If you pay more, you get less.
- If you pay less, you get more.

Looking at the examples above, an investor buying a bond at a premium will always receive a rate of return less than the coupon (or nominal) yield stated on the face of the bond (8.33% is less than 10%). Conversely, any time an investor purchases a bond at a discount, the return will be more than the rate stated on the face of the bond (12.5% is greater than 10%).

In addition to being the dollar amount on which the annual interest is based, par value is also the dollar amount that will be returned to the investor at maturity. Therefore, an investor purchasing a bond at a discount knows that holding the bond until maturity date will result in a return of the par value, an amount which will be more than what was paid for the bond. An investor purchasing a bond at a premium and holding it until the maturity date knows

that the par value received will be less than what was paid for the bond. To accurately reflect this gain or loss that an investor will have upon maturity, there is another yield to consider—the yield to maturity, or true yield.



TEST TOPIC ALERT

Another way you may be tested is by giving you a quoted yield and asking you for the price relative to par. For example, if a bond with a 5% coupon is currently yielding 6%, is it selling at a discount, a premium, or par? Well, anytime you are getting a yield higher than the coupon rate, the bond has to be selling at a discount from par. Conversely, if the bond had a 5% coupon, but the current return was 4%, the bond must be selling at a premium to par.

You may also be asked to determine which is higher (or lower), the current yield or the yield to maturity. Because yield to maturity (YTM) accentuates the return by adding a profit to a bond bought at a discount or subtracting the loss on a bond bought at a premium, the YTM on a discount bond will always be higher than that bond's current yield, and the reverse is true regarding a bond bought at a premium.

Yield to Maturity (YTM) or Basis

This measurement takes into account the gain or loss the investor will have when the bonds are redeemed at maturity. The person who buys the bonds mentioned above at \$800 will get back \$1,000 if the bonds are held to maturity, in addition to receiving \$100 per year interest (a current yield of 12.5% on the \$800 investment). Consequently, this investor will have a gain of \$200 on top of the annual interest. The individual paying \$1,200 for the bonds will have a \$200 loss at maturity when receiving the face value for them at maturity.

Whenever an investor pays less (buys at a discount), there will be a profit in addition to the annual interest, and whenever the investor pays more (buys at a premium), there will be a loss if held to maturity. Try to understand these key facts:

- A bond is issued at par (\$1,000) because that is how much the issuer is borrowing.
- The interest paid on the bond is always fixed as a percentage of the par (face) value.
- Regardless of changes in the market value of the bond, the interest checks remain the same.
- The current market price of a bond is determined by supply and demand.
- The current market price will fluctuate.
- The current market price may be at par, above par, or below par.
- A bond always matures at par.
- Purchasing a bond at par will always result in getting back the same as the original investment at maturity.
- Purchasing a bond at a discount (below par) will always result in getting back par, which means more (a profit) than the original investment.
- Purchasing a bond at a premium (above par) will always result in getting back par, which means less (a loss) than the original investment.

Although you will probably not have to do a yield to maturity computation on the exam, some students find that seeing the numbers played out gives them a better understanding of the concept. Try to follow this example.



EXAMPLE

An investor who buys a 10% coupon bond at 105 (\$1,050 per bond) with 10 years remaining to maturity can expect \$100 in interest per year. If he holds the bond to maturity, the bondholder loses \$50, the amount of the premium. This loss is included in the YTM approximation.

The actual YTM calculation for this premium bond is shown below:

$$\frac{\text{Annual interest} - (\text{premium} \div \text{years to maturity})}{\text{Average price of the bond}}$$

$$\frac{100 - (50 \div 10)}{1,025} = \frac{95}{1025} = 0.093, \text{ or } 9.3\%$$

A bond's average price is the price paid plus the amount received at maturity (par) divided by 2. Alternatively, the average price is that price midway between the purchase price and par.

The YTM of a bond bought at a premium is always lower than both the coupon rate (nominal yield) and the current yield. In this example, the nominal yield is 10%, and the current yield is 9.52% ($100 \div 1,050$).

If an investor buys a 10-year bond with a 10% coupon for 95 (\$950 per bond), he receives \$100 per year in coupon interest payments and a gain of \$50 (the amount of the discount) at maturity. This gain is included in the YTM approximation.

The actual YTM calculation for this discount bond is shown below:

$$\frac{\text{Annual interest} + (\text{discount} \div \text{years to maturity})}{\text{Average price of the bond}}$$

$$\frac{100 + (50 \div 10)}{975} = \frac{105}{975} = .1077, \text{ or } 10.77\%$$

The YTM of a bond bought at a discount is always higher than both the coupon rate (nominal yield) and the current yield. In this example, the nominal yield is 10%, and the current yield is 10.53% ($100 \div 950$).

If these calculations seem complicated, do not worry. You will have at most one question requiring a YTM calculation. Focus on the relationship between YTM and current yield (CY) based on the price of the bond.



TAKE NOTE

YTM is also called the **market-driven yield** because it reflects the internal rate of return (IRR) from the bond investment.

Yield to Call (YTC)

A bond with a call feature may be redeemed before maturity at the issuer's option. Unless the bond was bought at par, and is callable at par, yield to call (YTC) calculations reflect the early redemption date and consequent acceleration of the premium loss from the purchase price.

A bond's **yield to call**, similar to YTM, is the rate of return the bond provides from the purchase date to the call date and price. This calculation generates a lower return than does the YTM and should be considered by investors when evaluating a callable bond trading at a premium.



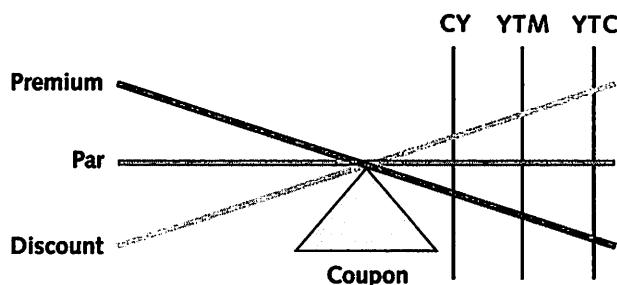
TEST TOPIC ALERT

The reason why we've only referred to a bond selling at a premium being called for redemption is because it is highly unlikely that an issuer would call in a bond that was available in the marketplace at a discount. If that were to happen, the yield to call would be higher than the yield to maturity because the profit resulting from the discount would be accelerated.

The following example and chart will help you follow the discussion of the various bond yields.



EXAMPLE Current Yield, Yield to Maturity, and Yield to Call



CY = Current Yield YTM = Yield to Maturity YTC = Yield to Call

- What is the current yield of a 6% bond trading for 80 (\$800)?

Current yield = annual income ÷ current market price

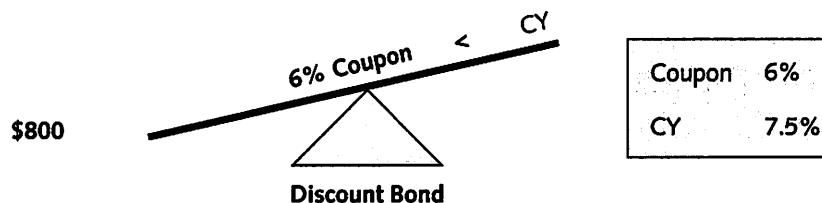
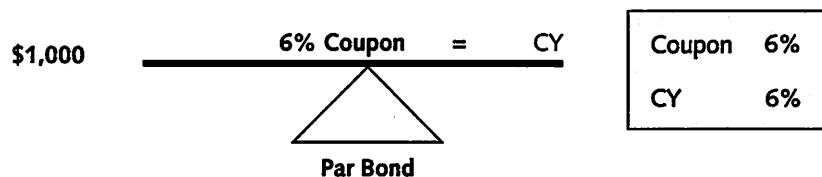
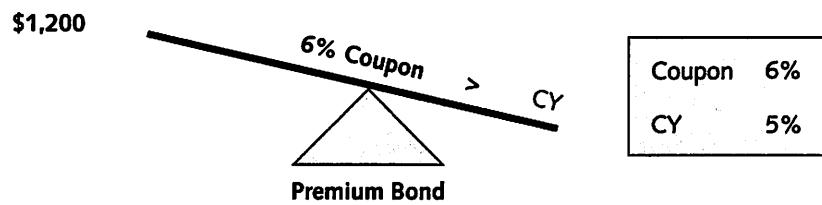
Find the solution as follows: $\$60 \div \$800 = 7.5\%$. This bond is trading at a discount. When prices fall, yields rise. The current yield is greater than the nominal yield when bonds are trading at a discount.

- What is the current yield of a 6% bond trading for 120 (\$1,200)?

Find the solution as follows: $\$60 \div \$1,200 = 5\%$. This bond is trading at a premium. The price is up, so the yield is down. The current yield is less than the nominal yield when bonds are trading at a premium.

It is critical to understand the inverse relationship between price and yield. An effective way to visualize it is through the chart. When bonds are at par, coupon and current yield are equal. When bonds are at a premium, the CY is less than the coupon. When bonds are at a discount, the CY is greater than the coupon.

Current Market Value (CMV) of Bond with 10 Years to Maturity



TAKE NOTE

Know how to calculate the CY of a bond or a stock. Expect to see one question on the calculation of CY.

The CY of common stock is calculated by dividing the current dividend by the current price of the stock. For instance, a stock with a \$2 dividend trading on the market for \$40 has a 5% CY ($\$2 \div \$40 = 5\%$).



EXAMPLE

Answer the following questions with **premium**, **par**, or **discount**.

- If the bond has a YTC lower than its CY, it is trading at _____.
- If the bond has a YTM and CY that are equal, the bond is trading at _____.
- If the bond has a YTM less than its YTC, the bond is trading at _____.
- If a bond has a YTM greater than its coupon, the bond is trading at _____.

The answers are: 1. premium; 2. par; 3. discount; 4. discount.



TEST TOPIC ALERT

Memorize the following chart for the exam:

Ranking Yields from Lowest to Highest

Bond Price

Discount	Premium
Nominal	YTC
CY	YTM
YTM	CY
YTC	Nominal

Once you understand the yield ranking for discounts, the ranking for premium is easy—it is the exact opposite.

Price/Yield Relationship

There are many reasons interest rates rise and fall. The main concern for the exam, at this point, is the effect that interest rates have on the price fluctuations of bonds. As a general rule, keep in mind that interest rates and bond prices move counter to each other. That is, when interest rates are going up, the price of older bonds will be going down. When interest rates are going down, the price of older bonds will be going up.

When most people hear this for the first time, they have difficulty understanding it. Simply stated, when newly issued bonds are paying a higher rate of interest than ones currently in the marketplace, those older bonds are not as attractive. After all, if a new bond came out with a 6% coupon, your 4% or 5% bond would not be as valuable (this always assumes equal quality or rating). Conversely, if you were holding a bond with an 8% coupon, and newly issued bonds were only offering 6%, your bond is more valuable.

PRACTICE QUESTION



When a bond with a 6% coupon is selling for 90, each of the following statements is correct **except**

- A. the current yield is approximately 6.67%.
- B. the bond is selling at a discount.
- C. the bondholder will receive two semiannual interest payments of \$27 each.
- D. the yield to maturity is slightly higher than the current yield.

Answer: C. A bond with a 6% coupon is going to make two semiannual interest payments of \$30 each, regardless of the bond's market price. After all, the loan was \$1,000 at 6% interest, and that won't change. A price of 90 is 90% of the \$1,000 par—clearly a discount. The current yield is the \$60 annual interest divided by the \$900 price or 6.67%, and that is a bit lower than the yield to maturity because, if we hold the bond to maturity, we're going to get back the full \$1,000, which will represent a \$100 profit. Please see the chart at the Test Topic Alert above.

KNOWLEDGE CHECK 2.2



1. Disregarding commissions, an investor selling a U.S. Treasury bond for a price of 104:16 will receive
 - A. \$104.16.
 - B. \$104.50.
 - C. \$1,041.60.
 - D. \$1,045.00.

2. A 4.67% convertible debenture is selling at 102. It is convertible into the common stock of the same corporation at \$25. The common stock is currently trading at \$23. If the stock were trading at parity with the debenture, the price of the stock would be
 - A. \$25.00.
 - B. \$25.25.
 - C. \$25.50.
 - D. \$44.35.
3. Five percent XYZ debentures are trading for \$1,250. Other similarly rated bonds are being offered at 4.25%. What is the current yield on the 5% XYZ debentures?
 - A. 1.5%
 - B. 4.0%
 - C. 5.0%
 - D. 6.25%

LESSON 2.3: CORPORATE AND TREASURY DEBT SECURITIES

Previously, we stated that the three primary issuers of debt securities are the U.S. government (and its agencies), municipal issuers (states, cities, counties, etc.), and corporations. This lesson deals with two of those, with municipal issues being covered in Lesson 2.4.

LO 2.f Recognize the unique features of U.S. government and agency issues.

Whenever the word *government* is used in conjunction with a security on the exam, it means the federal government. U.S. government bonds are the safest of all. There are two primary types of backing: direct government backing, or guarantee, as in the case of Treasury issues, and the moral guarantee, as in the case of federal agencies.

Although most government issues trade in what is known as the capital market—that is, the market for long-term securities, stocks, and bonds—there are several issues that trade in the money market. The money market is where short-term instruments, those that mature in one year or less, are traded. The money market will be discussed later in this unit. No discussion of Treasury issues would be possible, however, without describing the widely held bellwether of the money market known as U.S. Treasury bills.

Government and Agency Securities

U.S. Treasury Bills

Treasury bills are direct, short-term debt obligations of the U.S. government. They are issued every week by using a competitive bidding process. Each week, T-bills, as they are known, with maturities of 4 weeks, 13 weeks, and 26 weeks, are issued, and, once every four weeks, bills with a 52-week maturity are issued.

Treasury bills pay no interest; they are issued at a discount from their par value. An investor might purchase a \$10,000, 26-week T-bill at a price of \$9,800. No interest would be received, but, at maturity, the Treasury would send the investor a check for \$10,000. The difference between the \$9,800 paid and the \$10,000 received would be considered interest income even though a separate interest check was never received.



TAKE NOTE

Key points to remember regarding T-bills include:

- Treasury bills are always issued and traded at a discount;
- Treasury bills are the only Treasury security issued without a stated interest rate;
- Treasury bills are highly liquid; and
- 13-week (also referred to as 91-day) Treasury bills are used in market analysis as the stereotypical “risk-free” investment, especially in computations that refer to the “risk-free” rate. More about that in Unit 21.

U.S. Treasury Notes

U.S. Treasury notes are direct debt obligations of the U.S. Treasury with the following characteristics:

- They pay semiannual interest as a percentage of the stated par value.
- They have intermediate maturities (2, 3, 5, 7, and 10 years).
- They mature at par value.
- They are noncallable.

U.S. Treasury Bonds

U.S. Treasury bonds are direct debt obligations of the U.S. Treasury with the following characteristics:

- They pay semiannual interest as a percentage of the stated par value.
- They have long-term maturities, generally 10–30 years.
- They are noncallable.
- They mature at par value.



TAKE NOTE

When doing any calculations relating to bonds on the exam, the par or face value will always be \$1,000. This is true even though the above three Treasury issues are available in denominations as low as \$100. Furthermore, all government securities are only available in book entry form. That means there are no certificates issued—records of the investor’s ownership are electronically “on the books” of the Treasury Department.



PRACTICE QUESTION

When Treasury bills are issued, they are quoted at

- A. a premium over par.
- B. 100% of the par value.
- C. par value with interest coupons attached.
- D. a discount from principal with no coupons attached.

Answer: D. Treasury bills are always issued at a discount; they pay no interest. The investor profits by receiving back par value and makes the difference between the discounted purchase price and the par received at maturity. All government bonds are now book entry (electronic record); there has not been a Treasury note or bond issued since July 1986 with interest coupons attached.

Treasury Inflation-Protected Securities (TIPS)

A special type of Treasury issue, **Treasury Inflation-Protected Securities (TIPS)**, helps protect investors against purchasing power risk. These notes are issued with a fixed interest rate, but the principal amount is adjusted semiannually by an amount equal to the change in the Consumer Price Index (CPI), the standard measurement of inflation. They are issued with maturities of 5, 10, and 30 years and are also available in denominations of \$100 like the other Treasuries we've covered.

The interest payment the investor receives every six months is equal to the fixed interest rate times the newly adjusted principal. During times of inflation, the interest payments increase, while during times of deflation, the interest payments fall. These notes are sold at lower interest rates than conventional fixed-rate Treasury notes because of their adjustable nature. We will demonstrate the return of a TIPS bond in Unit 22.

Like other Treasury securities, TIPS are exempt from state and local income taxes on the interest income generated but are subject to federal taxation. However, in any year when the principal is adjusted upward for inflation, that increase is considered reportable income for that year even though the increase will not be received until the note matures.



TEST TOPIC ALERT

Interest payments from Treasury Inflation-Protected Securities (TIPS), and increases in the principal of TIPS, are subject to federal tax but exempt from state and local income taxes.



PRACTICE QUESTION

- A customer wishes to buy a security providing periodic interest payments, safety of principal, and protection from purchasing power risk. The customer should purchase
- A. TIPS.
 - B. TIGRS.
 - C. CMOs.
 - D. STRIPS.

Answer: A. TIPS offer inflation protection and safety of principal because they are backed by the U.S. government.

GNMA Securities

There is one more security guaranteed by the full faith and credit of the U.S. government. The Government National Mortgage Association (Ginnie Mae or GNMA) is a wholly owned government corporation. The primary difference between GNMA securities and the agency securities that we will cover next is the backing of the federal government.

Ginnie Maes are known as modified pass-through certificates. They represent an interest in pools of FHA-insured mortgages or Veterans Administration–guaranteed mortgages. The term *pass-through* is used because, as the homeowners make their monthly mortgage payments, those payments are collected in the pool and proportionately pass through to the investor. This payment received by the investor differs from most other securities in two respects.

First, payments are received monthly, because underlying the security is a pool of home mortgages, which are paid for monthly. Second, each monthly payment the investor receives consists partly of interest and partly of principal. Because payments on home mortgages consist of interest and some principal and, because that money goes into the pool for all the investors as it is paid out monthly, some of each monthly payment to the investor represents

principal, and the balance of each payment represents interest. The portion of each monthly payment representing interest is subject to state and local taxation and, of course, federal income tax as well. Ginnie Maes carry a minimum denomination of \$1,000 and then in \$1.00 increments.

U.S. Federal Agency Securities

In addition to those securities issued directly by the U.S. Treasury, the exam covers those issued by U.S. government agencies. These are known as government-sponsored enterprises (GSEs). These are quasi-governmental organizations with the power to raise funds by borrowing (which does not carry the full faith and credit of the federal government) or to guarantee the debt of others. Although there are a number of agencies authorized to issue securities, the exam is most likely to limit its coverage to those issuing mortgage-backed securities. Although the securities do not have direct Treasury backing, they are considered moral obligations of the U.S. government. As such, they are generally considered second only to government securities in terms of safety.

Federal National Mortgage Association

The Federal National Mortgage Association (Fannie Mae) purchases and sells real estate mortgages—primarily those insured by the Federal Housing Administration (FHA) or guaranteed by the Veterans Administration (VA). Then, Fannie Mae issues bonds backed by those mortgages. They are issued at par and pay semiannual interest. That interest is taxable at all levels: state, local, and federal. Like the other federal issues, they come out in book entry form. Stock in Fannie Mae is publicly traded.

Whether a Ginnie Mae or a Fannie Mae, the debt obligation is backed by a pool of mortgages, and the interest and principal pass through to the investors. In reality, only a small percentage of mortgages last the full term. People move and sell their homes, or they may refinance the mortgages. Whatever the reason, most mortgages are paid off early. This leads to an unusual risk for those owning mortgage-backed securities—*prepayment risk*. Why do people refinance their mortgage? Usually, it is because interest rates have fallen, and they can get a new mortgage with a lower interest cost. In that case, the investor receives back the principal ahead of schedule and now has to reinvest at the current lower rates available. Prepayment risk is a form of reinvestment risk.

Benefits and Risks of Mortgage-Backed Securities

The primary advantage of investing in mortgage-backed securities is that, compared with other debt securities with similar ratings, they pay a higher rate of return.

There are a number of risks faced by investors in these securities:

- being difficult to understand from being among the most complicated instruments;
- prepayment risk due to mortgages being refinanced when rates drop;
- default risk, particularly if the mortgages are subprime;
- reinvestment risk; and
- liquidity risk.

Tennessee Valley Authority (TVA)

One final agency that might be tested is the TVA. The Tennessee Valley Authority is the nation's largest public power provider and a corporation of the U.S. government. TVA bonds are not backed by the U.S. government. Instead, they're backed by the revenues generated by the agencies' projects. However, credit-rating agencies perceive that there is an "implicit government guarantee of TVA bonds." If push came to shove, it's a good bet that Uncle Sam would make that guarantee explicit.



PRACTICE QUESTION

All of the following debt instruments pay interest semiannually **except**

- A. Ginnie Mae pass-through certificates.
- B. U.S. Treasury notes.
- C. U.S. Treasury bonds.
- D. TIPS.

Answer: A. A unique feature of Ginnie Maes is that they pay interest on a monthly basis, not semiannually. In addition to the interest, investors receive their share of that portion of the mortgage payments that represented principal repayment.

LO 2.g Differentiate between secured and unsecured corporate debt.

Corporate debt securities, like any other loan, may be either secured or unsecured. **Secured debt securities** are backed by various kinds of assets of the issuing corporation, whereas **unsecured debt securities** are backed only by the reputation, credit record, and financial stability of the corporation. Regardless of whether secured or unsecured, the interest on debt securities is always paid before dividends on stock (preferred and common).

Secured Debt

Mortgage Bonds

Just as the owner of a home pledges a real asset (the home and land) as collateral for the mortgage, a corporation will borrow money backed by real estate and physical assets of the corporation. Just as a home ordinarily would have a market value greater than the principal amount of its mortgage, the value of the real assets pledged by the corporation will be in excess of the amount borrowed under that bond issue. If the corporation develops financial problems and is unable to pay the interest on the bonds, those real assets pledged as collateral are generally sold to pay off the mortgage bondholders. There may be a situation where foreclosing on the property results in a sale below the outstanding mortgage balance. In that case, the mortgage holder becomes a general creditor for the unsatisfied balance.

Equipment Trust Certificates

Corporations, particularly railroads and airline companies, finance the acquisition of their rolling stock, locomotives, or airplanes by issuing an equipment trust certificate. The company makes a down payment, usually 20% of the cost of the rolling stock, and finances the balance over the course of time—for example, 15 years. Because the equipment does wear out, the railroad will pay off a portion of the loan on an annual basis. At no time, theoretically, is the value of the assets (the rolling stock, locomotives, or planes) worth less than the amount of the principal remaining on the loan. When the company has finished paying off the loan, it receives clear title to its equipment from the trustee. If the company does not make the

payments, the lender repossesses the collateral and sells it for his benefit. If you have ever financed the purchase of a car, it is basically the same concept.

Collateral Trust Bonds

Sometimes a corporation wants to borrow money and has neither real estate (for a mortgage) nor equipment (for an equipment trust) to use as collateral. Instead, it deposits securities it owns into a trust to serve as collateral for the lenders. The securities it deposits can be securities in that corporation or any other securities as long as the securities are marketable—that is, readily liquidated. Obviously, the better the quality of the securities deposited as collateral, the better the quality and rating of the bond. You might see these called collateral trust certificates.

Unsecured Debt

Debentures

A **debenture** is a debt obligation of the corporation backed only by its word and general creditworthiness. Debentures are written promises of the corporation to pay the principal at its due date and interest on a regular basis. Although this promise is as binding as a promise for a mortgage bond, debentures are not secured by any pledge of property. They are sold on the general credit of the company; their security depends on the assets and earnings of the corporation. Although debentures are unsecured, there are issuers whose credit standing is so good that their debentures are safer than mortgage bonds of less creditworthy companies. This is similar in concept to the extension of credit on your credit cards: the better your credit rating, the higher the limit and the lower the interest rate.

Guaranteed Bonds

A **guaranteed bond** is a bond that is guaranteed as to payment of interest, or both principal and interest, by a corporate entity other than the issuer. The value of the guarantee is only as good as the strength of the company making that guarantee. Guaranteed bonds were particularly popular in the railroad industry, when a major railroad seeking to lease trackage rights from a short line would guarantee that smaller company's debt. A more recent example is the ExxonMobil Corporation guaranteeing the debt issues of the Exxon Pipeline Company.

Subordinated

The term **subordinated** means “belonging to a lower or inferior class or rank; secondary.” It is usually describing a debenture. A subordinated debenture has a claim that is behind (junior to) that of any other creditor. However, no matter how subordinated the debenture, it is still senior to any stockholder.

PRACTICE QUESTION



- A debenture is issued based on
- the general credit of the corporation.
 - a pledge of real estate.
 - a pledge of equipment.
 - the ability to levy taxes.

Answer: A. There are no pledged assets behind a debenture, merely the credit standing of the corporation. It is a corporate IOU.



TEST TOPIC ALERT

When examining the capital structure of a corporation, it is important to know the liquidation priority:

- Secured creditors (e.g., mortgage bonds, equipment trust certificates, collateral trust bonds)
- Unsecured creditors (e.g., general creditors including debenture holders)
- Subordinated debt holders
- Preferred stockholders
- Common stockholders

Senior Security

Here is an exam-relevant example of the above liquidation priority. The word *senior* is used to describe the relative priority of claim of a security. Every preferred stock has a senior claim to common stock. Every debt security has a senior claim to preferred stock. Secured bonds have a senior claim to unsecured debt, such as debentures. The term *senior securities* means bonds and preferred stock, because they have a claim senior to common stock. If an exam question described a corporation as having issued *senior bonds*, the answer would have to state that there were mortgage bonds and/or collateral trust bonds and/or equipment trust certificates issued by that corporation with priority claim ahead of unsecured creditors.

Features of Various Securities Issues

	Common Stock	Preferred Stock	Bonds
Ownership and control of the firm	Belongs to common stockholders through voting rights and residual claim to income	Limited rights	Limited rights under default in interest payments
Obligation to provide return	None	Must receive before common stockholder	Contractual obligation
Claim to assets in bankruptcy	Lowest claim of any security holder	Bondholders and creditors must be satisfied first	Highest claim
Risk-return trade-off	Higher risk, higher return	Moderate risk, moderate return (dollar amount of dividend is known before stock purchase)	Low risk, moderate return
Tax status of payment to recipient	Taxable as dividend in most cases	Taxable as dividend in most cases	Taxable as ordinary income in most cases



KNOWLEDGE CHECK 2.3

1. If an investor watches the latest T-bill auction fall to 0.71% from 0.82%, the **best** interpretation is that
 - A. investors who purchased bills at this auction paid more for them than purchasers at last week's auction.
 - B. investors who purchased bills at this auction paid less for them than purchasers at last week's auction.
 - C. investors who purchased T-bills 12 weeks ago paid less than subsequent purchasers.
 - D. these are 52-week T-bills.

2. Which of the following corporate securities has a specific corporate asset pledged as security for the debt?
 - A. A debenture
 - B. An equipment trust certificate
 - C. A guaranteed bond
 - D. A subordinated loan

LESSON 2.4: MUNICIPAL BONDS

LO 2.h Recall the unique features of municipal bonds, including the calculation of tax-equivalent yield.

Whenever the term *municipal security* is used on the exam, it is referring to a debt security issued by a state or political subdivision; for example, a city, county, or school district. Although there are short-term obligations, the exam will likely only deal with long-term debt—bonds. Among the key investment features of municipal bonds are the tax treatment (the interest is generally free from federal income tax—covered shortly) and the safety. The record of safety of principal and interest payments of municipal bonds is second only to that of government issues. There is another unique feature of these securities. You can purchase municipal bonds where the scheduled payment of interest and repayment of the principal at maturity are insured—the issuer has taken out an insurance policy from one of several consortiums that offers this kind of protection. There are two basic types of municipal bonds.

Types of Municipal Bonds

General Obligation Bonds (GOs)

General obligation bonds are backed by a pledge of the issuer's full faith and credit for prompt payment of principal and interest. Most city, county, and school district bonds have the further distinction of being secured by a pledge of unlimited ad valorem (property) taxes to be levied against all taxable property. Because GOs are geared to tax resources, they are normally analyzed in terms of the size of the resources being taxed. They are generally very safe.

Revenue Bonds

Revenue bonds are payable from the earnings of a revenue-producing enterprise, such as a water, sewer, electric, or gas system, toll bridge, airport, college dormitory, or any other income-producing facility.

Authorities and agencies are created by states or their subdivisions to perform specific functions, such as the operation of water, sewer, or electric systems, bridges, tunnels, or highways, and, in some states, to construct schools or public facilities. In some cases, the authority has the right to levy fees and charges for its services. In other cases, it receives lease rentals, which may be payable from specific revenues or may be general obligations of the lessee. The yield, generally, is higher for this type of bond than for a GO (taxes are more secure than revenues).

Tax Equivalent Yield (TEY)

One final factor to be considered in the analysis of debt securities is taxability. When it comes to taxation, the interest on corporate bonds is taxed as ordinary income on both state and federal tax returns, while the interest on Treasury debt is only taxable at the federal level. Municipal bonds have one important characteristic that sets them apart from all other securities. In most cases, interest received from municipal bonds is free of federal income tax, and if the investor resides in the issuer's state, it is generally free of state income tax as well.

Assume an investor has \$2,000 to invest. If he purchases, at par, one corporate or government bond of standard size (\$1,000) with a 10% nominal (coupon) yield, he would receive \$100 per year paid by two semiannual interest checks of \$50. For purposes of this example, assume that he is in the 28% federal income tax bracket. An individual in the 28% tax bracket pays tax on any additional income earned at a rate of 28%. Therefore, on the \$100 in interest he received above, he would pay the IRS \$28 (28%) and keep the other \$72.

The other \$1,000 the investor had available to invest was used to purchase a \$1,000 par-value municipal bond with a 7.5% nominal yield. He would receive \$75 annually on that bond paid, by two semiannual interest checks of \$37.50. The 10% bonds, on which the interest is taxable, would net \$72 per year after taxes. Of the \$75 interest received for the 7.5% municipal, none of it is taxed; the whole amount is kept. Therefore, a client in the 28% bracket should purchase 7.5% municipals before 10% corporates. The taxable equivalent yield of a 7.5% tax-free bond for this investor in the 28% tax bracket would be the tax-free yield divided by its complement (100% minus the tax bracket)—in this case, $7.5 + (100 - 28)$, or .72. That equals 10.42%, so it is obvious that the 7.5% municipal bond will provide a higher after-tax return.

There are two ways to work with tax equivalent yield (TEY). The first we've just done; that is, given the coupon on a municipal bond and the investor's tax bracket, divide that coupon by $(100 - \text{tax bracket})$ to determine what a taxable security would have to pay to give the same after-tax return.

Alternatively, we might know the taxable security's coupon and the investor's tax bracket, and we want to know what the tax-free bond must yield to give us an equivalent yield. For example, a taxable bond is paying 8% interest and the investor is in the 30% tax bracket. Therefore, the investor will pay taxes equal to 2.4% (30% of the 8%). After paying taxes, the investor will keep the other 5.6% ($8\% - 2.4\%$). So, a tax-free bond paying 5.6% will offer a tax equivalent yield equal to the 8% one.

TEST TOPIC ALERT



The tax equivalent yield for a municipal bond issued by an entity within a state with a state income tax will have a higher tax equivalent yield to a resident of that state due to the "double" tax exemption.

The formula for computing tax equivalent yield (TEY) is:

Municipal bond coupon divided by $(100\% - \text{investor's tax bracket})$.

Therefore, if the coupon rate (nominal yield) of the municipal bond is 4.2% and the investor is in the 40% tax bracket, you would divide 4.2% by $(100\% - 40\%)$ or 4.2% by 60% and arrive at a TEY of 7%. That is, in order to receive the same after-tax benefit, this investor would have to purchase a taxable bond (corporate or government) with a coupon of 7%. This can be easily proven by taking the 7% yield and reducing it by the 40% tax, which results in 7% minus 2.8% tax, or 4.2%.

PRACTICE QUESTION



If an investor in the 27% federal income tax bracket invests in municipal general obligation bonds selling at par with a coupon of 4.5%, what is the tax equivalent yield?

- A. 3.29%
- B. 5.72%
- C. 6.16%
- D. 16.67%

Answer: C. The formula for computing tax equivalent yield is nominal (coupon) yield divided by $(1 - \text{federal income tax rate})$: $.045 \div (1 - 0.27) = .045 \div 0.73 = 6.16\%$.

KNOWLEDGE CHECK 2.4



1. A bond indenture states that payment of interest and principal will come from the collection of ad valorem taxes. This is most likely
 - A. a municipal general obligation bond.
 - B. a municipal revenue bond.
 - C. a U.S. Treasury bond.
 - D. a corporate bond backed by property taxes.
2. Janeece, who is in the 37% marginal income tax bracket, would like to purchase a bond for her investment portfolio. Assuming all the bonds are of similar investment quality, which would produce the highest after-tax yield?
 - A. 2.25% U.S. Treasury note
 - B. 3.55% municipal bond
 - C. 3.75% U.S. Treasury bond
 - D. 5.25% corporate bond

LESSON 2.5: FOREIGN DEBT SECURITIES

LO 2.i Identify the advantages and disadvantages of investing in foreign debt securities.

Many investors choose to diversify their portfolios by investing in bonds issued by sovereign foreign governments. Some, such as the *gilts* (a gilt is a UK liability issued by the British Treasury and listed on the London Stock Exchange), are extremely safe. Others, especially those issued by countries with a less-established financial structure, can be very risky and may even carry a rating equivalent to a junk bond. In addition, it is also possible to invest in corporate debt securities issued by foreign business entities. Once again, there is a great variation in risk. The advantages of investing in foreign bonds include:

- Potentially higher returns
- Diversification
- Hedging against a drop in value of the U.S. dollar

Risks would include those found with all debt securities plus:

- Currency risk (if the foreign currency falls in value against the dollar)
- Potentially higher risk of default
- Generally less liquidity
- Generally higher trading costs

In Unit 3, we will discuss how most investors use pooled investment vehicles, such as mutual funds, to invest in foreign debt securities.

Eurobonds and Eurodollar Bonds

A **Eurobond** is any long-term debt instrument issued and sold outside the country of the currency in which it is denominated. A U.S. dollar-denominated Eurobond, or Eurodollar bond, is a bond issued and sold outside the United States but for which the principal and interest are stated and paid in U.S. dollars. Foreign corporations, foreign governments, domestic corporations, and domestic governments (including municipalities) can issue Eurodollar bonds. The U.S. government does not issue Eurodollar bonds.



TEST TOPIC ALERT

Test questions sometimes ask you to contrast Eurobonds and Eurodollar bonds. The name of the instrument tells you how principal and interest are paid. Eurodollar bonds pay in U.S. dollars; Eurobonds pay in foreign currency. Note that these instruments must be issued outside of the United States.



TEST TOPIC ALERT

What is a Yankee bond? There are a number of cute names given to bonds in an attempt to signify where they are issued, in what currency they are denominated, and by whom they are issued. The Yankee bond is a first cousin to the Eurodollar bond discussed above.

Just as a Eurodollar bond is a U.S. dollar-denominated bond issued outside the United States, a Yankee bond is a U.S. dollar-denominated bond issued by a non-U.S. entity in the U.S. market. Another example of this is the Maple bond, a Canadian dollar-denominated bond issued by a non-Canadian entity in the Canadian market. Can you guess what a Matilda bond is? (Clue—it takes its name from a song that had “waltzing” in the title.) The answer will be found later in this course.

The primary reason for issuing these bonds is that they are free from the requirement to register with the SEC, resulting in lower issuance costs. However, because the liquidity is not as great as with domestic issues, and because the political and country risks tend to be higher, yields are generally higher.



TAKE NOTE

If you purchase a bond issued in a foreign currency, you will receive your fixed rate of interest in that currency. However, when converting to U.S. dollars, you will be subject to currency risk. The same is true at maturity. For example, if you purchase £100,000 of UK gilts (the term given to their government bonds) with a 4% coupon, you would always receive £4,000 per year in interest. At the exchange rate in effect when this is being written ($\text{£}1 = \$1.41$), the bonds would cost you \$141,000 and you would be receiving the equivalent of \$5,640 in interest. At maturity you would receive £100,000, but if the value of the pound had fallen, say to \$1.25, then the value of the matured bonds would be only \$125,000. The same would be true about your interest payments if, during the holding period, the pound changed in value. Remember, currency values can fluctuate up or down; that is the nature of currency risk.



TEST TOPIC ALERT

Three advantages of Eurodollar bonds to investors are:

- Because they are U.S. dollar-denominated, they bear no currency risk to U.S. investors.
- They are rated by U.S. rating agencies, so the risk is clear.
- They may offer higher yields than domestic bonds from the same issuer.

Disadvantages of Eurodollar bonds (as with foreign bonds in general) are:

- Because they are not registered with the SEC, there may be a lack of transparency.
- They have political and country risks (taken into consideration by the rating agencies).
- They have less liquidity than domestic issues.
- They have currency risk (if denominated in a currency other than one's home country).

Brady Bonds

Brady bonds were named after former U.S. Treasury Secretary Nicholas Brady initiated a plan in 1989 to exchange defaulted commercial bank loans issued in less-developed countries, particularly in Latin America, with a security that could be carried on the bank's books as a performing asset. The first Brady agreement was reached with Mexico, and the bonds were first issued in March 1990. Partners in the program were the International Monetary Fund (IMF) and the World Bank. Most Brady bonds are denominated in U.S. dollars. Maturities range from 10 to 30 years and may be interest bearing or discounted or even zero coupon. The safety of a Brady bond largely depends on the pledged collateral frequently a U.S. Treasury zero-coupon bond. The Brady bond market was the largest and most actively traded emerging market asset class, but, as most of the countries involved have matured, Brady bonds are only a small fraction today. Because of their relatively high safety, Brady bonds are generally more liquid than other debt issues from emerging markets.

The Brady Plan offered several important benefits:

- Those countries who participated were able to reduce their overall debt levels as well as the debt servicing cost.
- For the bank's portfolio, their sovereign risk was diversified.
- The plan encouraged emerging market countries to undertake economic reforms.
- With the added safety and promise of economic reforms, emerging market countries had a broader access to the financial markets.



TEST TOPIC ALERT

No Brady bond carries a U.S. government guarantee.



PRACTICE QUESTION

Which of the following statements is **not** true?

- A. A country wishing to restructure its debt using Brady bonds would do so to save on debt servicing costs.
- B. One of the benefits of holding convertible debentures is the option to convert into the corporation's common stock.
- C. U.S. Treasury securities are backed by the full faith and credit of the United States of America.
- D. A resident of France purchasing Eurodollar bonds does not incur currency risk.

Answer: D. As the name implies, Eurodollar bonds are denominated in U.S. dollars. That means that someone in France will have the risk that the euro, the home currency in France, will rise against the dollar and, as a result, interest payments will be worth less, as will the ultimate payback at maturity. Only U.S. residents have no currency risk with Eurodollar bonds. One of the benefits of Brady bonds is the ability of the sovereign government to borrow at a lower cost because of the collateral behind the bond. At least for exam purposes, there are no securities with a stronger guarantee of timely payment of interest and principal than those issued by the U.S. Treasury. Convertible debentures are convertible into the issuer's common stock, which is a benefit if the stock rises in price.



KNOWLEDGE CHECK 2.5

1. Advantages of Brady bonds to an American investor include all of the following **except**
 - A. tax-free interest.
 - B. greater liquidity than found in most emerging market securities.
 - C. greater safety than most emerging market debt because of the collateral.
 - D. higher yields than on U.S. Treasury securities.
2. All of the following are advantages of Eurodollar bonds **except**
 - A. because they are U.S. dollar denominated, they bear no currency risk to U.S. investors.
 - B. greater transparency.
 - C. they are rated by U.S. rating agencies, so the risk is clear.
 - D. they may offer higher yields than domestic bonds from the same issuer.

LESSON 2.6: PAYING OFF THE DEBT

LO 2.j Recall the methods of repayment of principal.

As stated in the beginning of this unit, in addition to receiving regular income from the investment, the investor expects to receive a return of the loan principal. Normally, one expects to be paid off when the debt matures. However, there are cases when the issuer pays off the debt prior to maturity.

Zero-Coupon Bonds

The nominal (coupon) rate on a zero-coupon bond is zero. Zero-coupon bonds are issued at a substantial discount from par. They pay no interest, but the difference between the discounted price paid and the par value received at maturity makes up for the lack of a current interest coupon. For example, if an investor were to purchase a new zero-coupon bond for \$500 that matured at par in 10 years, he would receive a profit of \$500 in 10 years, or an average of \$50 per year on an out-of-pocket expenditure of \$500. Here are the key things to remember about zero-coupon bonds:

- They are always issued at a discount.
- There is no reinvestment risk because there are no interest payments to worry about reinvesting.
- They are more volatile than other bonds of similar quality.
- Even though no periodic interest payments are received, the IRS requires the issuer to send a Form 1099-OID indicating the taxable interest to be reported each year. This is generally referred to as *phantom income* because you don't "see" it, but you pay tax on it.



- This investment is particularly useful when there is a target goal, such as a college education or a qualified retirement plan. This is particularly true because of the tax treatment mentioned above. Unless it is a large quantity, the child generally incurs little, if any, tax liability, and the earnings in the retirement plan are tax deferred.

In the case of zero-coupon corporate or municipal securities, there is a somewhat higher level of credit risk. (On a 20-year bond, the investor receives nothing until the maturity date, and if the issuer is insolvent at that time, the investor has received nothing during the entire 20 years.) However, no credit risk exists in the case of zero-coupon treasuries (known as STRIPS for Separate Trading of Registered Interest and Principal of Securities) because the risk of default on a U.S. government security (at least for purposes of this exam) is nonexistent.

The major attraction of this type of investment is that it allows an investor to lock in a yield (or rate of return) for a predetermined, investor-selected time with no reinvestment risk. Because all zeroes are sold at a discount and have no current return, there is a great deal of price volatility. This point will be reviewed again later in Unit 20 in the discussion on duration.

Callable Bonds

Most of the questions on the exam dealing with early payback of principal are about callable bonds. Bonds can be either callable or noncallable. The call feature permits the issuer to redeem its bonds (pay off the principal) before maturity if it so desires. The call feature is most often exercised when interest rates (borrowing costs) have declined. In this case, the issuer could take advantage of the lower cost of borrowing by issuing new bonds at the lower rate prevailing in the market and using those proceeds to call in the old bonds with their higher coupons. This is similar to refinancing a home mortgage, but in this business we use the term *refunding*. In most cases, especially when the call takes place many years before the maturity date, the call price is at a premium to par. An issuer would not be interested in redeeming its bonds when interest rates have gone up and the bond prices have gone down; the cheapest way for the issuer to retire its debt is to buy it in the open market.

Much of what we covered in LO 1.c dealing with callable preferred stock applies here. Unless the call date is far in the future, the call price is usually at a premium to par. If the bond is called, the issuer announces the final date to tender (turn in) the bond. After that date, the bond no longer earns interest and any special rights, such as the ability to convert (next topic), are gone.

Call Protection

Before purchasing a bond, determine the extent of its call protection. **Call protection** is the number of years into the issue before the issuer may exercise the call provision. The best call protection a bond may have is if a bond is noncallable; in other words, the issuer cannot call it early, and the investor has the best protection against a call.

PRACTICE QUESTION



A bond issue that may be retired in advance of maturity at the option of the issuer is said to have

- A. a callable feature.
- B. an optional reserve.
- C. a conversion feature.
- D. a cumulative feature.

Answer: A. A bond that is callable has a provision that the issuer, at its option, may redeem that bond at a specified price known as the call or redemption price. As we will see below, the conversion feature may be exercised by the investor, not the issuer.

Convertible Debt

As covered in LO 2.d, the exam also deals with debt securities paid off before maturity when investors exercise the convertible feature. Although the term *convertible bonds* is often used, in reality most are debentures rather than secured debt. For exam purposes, the distinction is not important. In addition to being able to understand and compute the parity price of a convertible security, the exam deals with suitability of this type of investment for advisory clients. It is important to view this as a sort of hybrid security. On the one hand, there is the fixed-income security—the convertible. At the same time, there is the connection to the issuer's common stock. That is, once that stock's market price increases above the conversion price, the investor has the opportunity to sell the debt security for a premium over the par value. It is this duality that causes some who practice asset allocation (covered in Unit 21) to consider this an equity investment rather than fixed income.

Advantages to Investors

Downside protection. The investor is a creditor. If the company's business does not prosper and the stock does not go up, or declines in value, the investor becomes, as a debenture holder, a creditor. Interest must be paid semiannually, and the principal must be repaid at maturity. The investor has assured income as long as the company is solvent, and has a bondholder's claim in the event of financial difficulty. Convertibles carry a lower interest rate than nonconvertibles because of the added bonus of the convertibility factor. If the underlying common stock declines to a point where the convertibility factor is worth nothing, then the debenture will sell on the basis of its yield alone, like any other debt security. That is why the market price of convertibles tends to be less volatile than the underlying common stock.

Upside potential. If the company's business prospers, the underlying stock will increase in market value. Because the bondholder can convert to stock, the market price of the bond will go up parallel to the increase in the common stock price. That can have the effect of mitigating the interest rate risk found in virtually all fixed-income investments.

A convertible bondholder, therefore, has all the upside potential of the common stockholder with less downside risk.

Disadvantages to Investors

Among the disadvantages to investors in convertible bonds are that they receive a lower interest rate than a nonconvertible debt and, of course, the possibility that the convertible bond may be called away before one is ready to convert.

Antidilutive Protection

One of the concerns of any holder of a convertible security (bond or preferred stock) is protection against the potential dilution resulting from a stock split or a stock dividend. For example, if you owned a bond convertible into 20 shares and the issuer declared a 2-for-1 stock split, in order for you to have the same conversion powers, you would need to be able

to convert into 40 shares. If the conversion privilege were expressed as a conversion price, the new price would now be half the former one, allowing you to convert into twice as many “new” shares.



KNOWLEDGE CHECK 2.6

1. If each of the following bonds matures in 10 years and has the same rating, which is the most volatile?
 - A. Zero coupon bond with 6% yield
 - B. Zero coupon bond with 8% yield
 - C. Corporate bond priced at par with 6% yield
 - D. Corporate bond priced at par with 8% yield
2. One of your customers is a new parent. The customer wishes to deposit a lump sum into an investment offering a guaranteed return in 18 years, just in time for college. Which of the following bonds maturing in 18 years would offer the greatest safety?
 - A. A corporate zero coupon bond with a AAA rating
 - B. A municipal zero coupon bond with a AAA rating
 - C. An unrated Treasury STRIP
 - D. A high-yield corporate bond

LESSON 2.7: MONEY MARKETS AND BANK ACCOUNTS

LO 2.k Identify the special characteristics of money market instruments and the risks and benefits of adding them to a client's portfolio.

As we will learn when discussing asset allocation programs later in this course, one important asset is cash. Now, we don't mean greenbacks buried in the mattress or the backyard; we're referring to places to keep funds that are in the bank or in securities that are considered to be the same as cash. When it comes to cash equivalents, the exam will include money market instruments with a maturity of up to one year.

Money Markets

The **money market** may be defined as the market for buying and selling short-term loanable funds in the form of securities and loans. It is called the money market because that is what is traded there: money, not cash. The buyer of a money market instrument is the lender of the money; the seller of a money market instrument is the entity borrowing the money.

Although there are many different kinds of money market instruments, there are several common factors. For example, they all have a maturity date of one year or less. In fact, the majority of money market instruments mature in less than six months. Another factor that many (but not all) money market instruments share is that they are issued at a discount; they do not pay interest because debt securities generally pay interest semiannually and, because most money market instruments have a maturity of six months or less, the administrative costs of paying out interest would be very high. Therefore, the solution is to issue the security at a discount with the investor being paid back par at maturity. The difference between the two is that the investor's income paid for the use of her money. Money market instruments are safe. Although some are not quite as safe as others (e.g., commercial paper is not as safe as a Treasury bill), they are all considered to be low-risk securities.

Treasury Securities

Because there is so much Treasury debt outstanding, the level of activity in Treasury bills and other short-term government issues is by far the highest and most carefully watched. Governments with short terms also refer to U.S. Treasury notes or U.S. Treasury bonds that are in their last year before maturity because, at that time, they would trade like any other security with one year or less to maturity.

Negotiable Certificates of Deposit (CDs)

These CDs are unsecured time deposits (no asset of the bank is pledged as collateral), and the money is being loaned to the bank for a specified period of time. A negotiable CD allows the initial investor, or any subsequent owner of the CD, to sell the CD in the open market prior to maturity date. The bank that issues the CD redeems the CD at face value plus interest on maturity date. CDs are the only money market instrument that pays periodic interest, usually semiannually. To be considered a negotiable CD, such CDs must have a face value of \$100,000 or more, with \$1 million or more being most common. Although maturities can run as long as 10 years, it is those with a maturity of 1 year or less that are considered money market instruments.



TAKE NOTE

In the industry (and sometimes on the exam), negotiable CDs are referred to as jumbo CDs. Although covered by FDIC insurance, these are **not** the CDs that you purchase at your local bank branch. We'll discuss them shortly.



TEST TOPIC ALERT

- Negotiable CDs do not have a prepayment penalty.
- FDIC insurance applies up to \$250,000.
- Jumbo CDs pay interest semiannually.
- They are the money market instrument that is always issued at par, not a discount.

Commercial Paper

Another money market instrument is commercial paper. This is short-term unsecured paper issued by corporations (especially finance companies) primarily to raise working capital—in other words, for current rather than long-term needs. As you will learn when we cover securities exemptions in Unit 8, commercial paper is exempt from registration on both the federal and state levels as long as the maximum maturity is 270 days.

While negotiable CDs are interest bearing and issued at face amount, commercial paper is generally issued at a discount—instead of receiving interest, the investor receives the face amount at maturity.

Eurodollars and Foreign Currency Markets

As described in the previous LO, the cost of raising money and doing business is not restricted by national boundaries. International monetary factors, such as changes in foreign currency exchange rates, Eurodollars, or other Eurosecurities, can also affect U.S. money markets and businesses.



EXAMPLE

Euroyen are Japanese yen deposited in banks outside Japan. In other words, when a currency is preceded by the prefix *Euro*, it refers to a bank deposit outside of the currency's home country.

Eurodollar time deposits tend to be short term, ranging from overnight to 180 days. European banks lend Eurodollars to other banks in much the same way that U.S. banks lend federal funds. The interest rate is usually based on **the London Interbank Offered Rate (LIBOR)**.

London Interbank Offered Rate (LIBOR)

LIBOR, sometimes referred to as the ICE-LIBOR, is derived from a survey of banks conducted each day in London, UK, on behalf of the Intercontinental Exchange (ICE). Lenders are asked how much it would cost them to borrow from each other for 15 different periods, from overnight to one year, in currencies including dollars, euros, yen, and Swiss francs. Rates are based on actual transactions for which records are kept. After a set number of quotes are excluded, those remaining are averaged and published for each currency by the ICE before noon.



TAKE NOTE

The exam may expect you to know that the LIBOR rate is the world's most widely used benchmark for short-term interest rates.



TAKE NOTE

Scandals in London have raised doubts about the future use of the LIBOR. Alternative measurements have been proposed, and it is likely by late 2022 or so that there will be a new tool. It appears that the final date for the LIBOR will be June 30, 2023. When that happens and the LIBOR is no longer the answer to the questions, our QBank will be updated and the new information will be posted to the Content Updates.

At this time, one of the leading replacement candidates is the SOFR. The **Secured Overnight Financing Rate (SOFR)** is a broad measure of the cost of borrowing cash overnight collateralized by Treasury securities. If you should see this on your exam, please let us know.



PRACTICE QUESTION

- The LIBOR rate is established on a daily basis in
- A. Liberia.
 - B. Libya.
 - C. London.
 - D. New York.

Answer: C. The LIBOR is the London Interbank Offered Rate (technically the ICE-LIBOR now) and, as shown, the L stands for London, UK.



PRACTICE QUESTION

A company realizes money from the sale of surplus equipment. It would like to invest this money but will need it in 4–6 months and must take that into consideration when selecting an investment. You would recommend

- A. preferred stock.
- B. Treasury bills.
- C. AAA rated bonds with long-term maturities.
- D. common stock.

Answer: B. For this client, the appropriate investment is a money market instrument, and nothing is safer than a T-bill.

In summation, why would you place money market securities in a client's portfolio?

- Highly liquid
- Very safe
- The best place to store money that will be needed soon

In doing so, the client would be incurring the following risks:

- Because of their many advantages, the rate of return is quite low, so these are not suitable for long-term investors.
- Fluctuating income—due to short-term maturities, principal is potentially being reinvested at a different rate each time the instrument matures.

Bank Accounts

As mentioned, when referring to cash as part of one's asset allocation, in addition to cash equivalents in the form of money market instruments, one might keep the proverbial "cash in the bank." The term **insured** will frequently be used on the exam because, at least up to the legal limits, the funds involved are insured by the FDIC. There are several ways this may be done.

Demand Deposit

This is the legal term for a checking account. It is the favorite repository for funds that will be needed in the very near term.



TEST TOPIC ALERT

What we normally refer to as cash in the bank is, in banking terms, known as a **demand deposit**. To bankers, the term *demand deposit* refers to a type of account (usually just shown by the initials *DDA*) held at banks and financial institutions that may be withdrawn at any time by the customer. Historically, the term referred only to checking accounts, but it now commonly includes savings accounts and money market accounts (not money market mutual funds—those are not banking products).

When analyzing a client's financial profile, it should be understood that these are considered *short-term* funds (readily available) and provide safe but *low* returns.

Certificates of Deposit (CDs) (Time Deposit)

In the money market segment a few pages ago, we introduced you to the jumbo (negotiable) CD. Here, we're referring to the nonnegotiable (you can't sell it to anyone, you can only

redeem it at the bank) certificate of deposit available at your local branch (or online). These are typically available with a minimum deposit of as little as \$500 and maturities of anywhere from three months to five years. In most cases, withdrawal prior to the maturity date will result in a penalty. Here are some key facts to remember for the exam:

- If capital preservation is the goal with no risk, the answer is an insured bank CD.
- Insured bank CDs have no interest rate risk (they don't fluctuate in value as interest rates change).
- Even with the potential early withdrawal penalty, these are considered liquid assets, but certainly not as liquid as a DDA.

There are risks, however:

- As fixed-income investments, they bear purchasing power (inflation) risk.
- Yields tend to be quite low, so they should not be a major portion of a long-term investment.

PRACTICE QUESTION

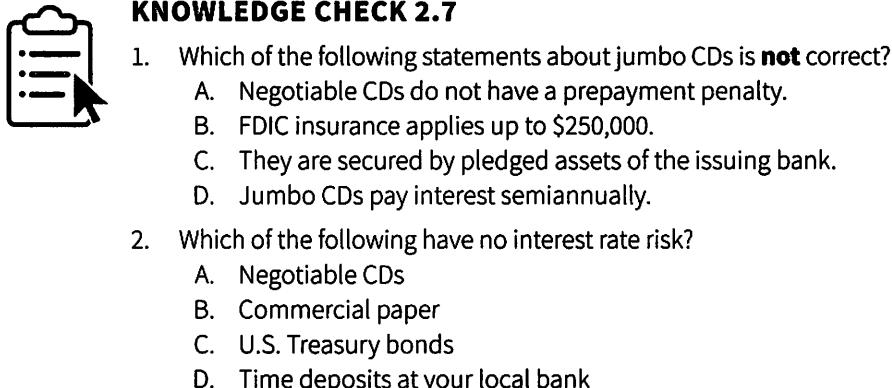


One would expect to have checkbook access to a

- A. CMO.
- B. DDA.
- C. GNMA.
- D. LIBOR.

Answer: B. DDA stands for demand deposit account, most often a checking account at a bank.

KNOWLEDGE CHECK 2.7



1. Which of the following statements about jumbo CDs is **not** correct?
 - A. Negotiable CDs do not have a prepayment penalty.
 - B. FDIC insurance applies up to \$250,000.
 - C. They are secured by pledged assets of the issuing bank.
 - D. Jumbo CDs pay interest semiannually.
2. Which of the following have no interest rate risk?
 - A. Negotiable CDs
 - B. Commercial paper
 - C. U.S. Treasury bonds
 - D. Time deposits at your local bank

KNOWLEDGE CHECK ANSWERS

Knowledge Check 2.1

1. A Bond prices have an inverse relationship to interest rates. If interest rates go up, prices for those bonds trading in the secondary markets will go down. Conversely, if interest rates decline, bond prices rise. Par value is a fixed number for the life of the bond.

LO 2.a

2. B A rating of Baa is the lowest investment-grade rating assigned by Moody's. Any rating beneath this is considered speculative. If the question asked about Standard & Poor's, then the correct choice would be BBB.

LO 2.b

Knowledge Check 2.2

1. D Treasury bonds are quoted in 32nds and as a percentage of par. A quote of 104.16 is 104 16/32 or 104 1/2% of par. With par always being \$1,000, the proceeds of the sale are \$1,045.

LO 2.c

2. C To determine the parity price of the common, first find the number of shares the debenture is convertible into (conversion ratio) by dividing par value by the conversion price ($\$1,000 / \$25 = 40$ shares). Next, divide the current price of the bond by the conversion ratio. The result is the parity price of the common stock ($1,020 / 40 = \$25.50$).

LO 2.d

3. B Current yield is defined as the annual income (or coupon rate) from a bond divided by the bond's current market price. Accordingly, $\$50 / \$1,250 = .04 \times 100 = 4\%$. The current yield will be lower than the coupon rate when the bond is trading at a premium. Please note that there is unnecessary information given in this question. You do not need to know anything about other bonds.

LO 2.e

Knowledge Check 2.3

1. A The rates on the T-bills fell, so prices rose, and the investor paid more for the bills this week than last week. The decline in yields indicates there was good demand for the securities because the price rose, driving the yields down. The question does not indicate the price of T-bills 12 weeks ago; it is unclear if the investor paid less for the T-bills then. The 52-week (one-year) T-bills are the only ones auctioned monthly instead of weekly.

LO 2.f

2. B There are three primary examples of secured corporate debt instruments on the exam. Those are
 - equipment trust certificates (secured by the pledged equipment);
 - collateral trust bonds or certificates (secured by the securities pledged); and
 - mortgages bonds (secured by real property pledged).

A guaranteed bond is secured by a pledge made by a third party—no asset of the issuing corporation is pledged.

LO 2.g

Knowledge Check 2.4

1. A Ad valorem taxes, most often taxes on real property, are the backing for municipal GO bonds. Corporations and the U.S. government do not collect property taxes.

LO 2.h

2. B Janeece should purchase the municipal bond based on the following after-tax yield calculations:
 - U.S. Treasury bond [$3.75\% \times (1 - 0.37)$]: 2.36%
 - Corporate bond [$5.25\% \times (1 - 0.37)$]: 3.31%
 - Municipal bond (tax-free): 3.55%
 - U.S. Treasury note [$2.25\% \times (1 - 0.37)$]: 1.42%.

LO 2.h

Knowledge Check 2.5

1. A The interest on Brady bonds is fully taxable to a U.S. investor. All of the other statements are true.
LO 2.i
2. B Eurodollar bonds are not registered with any regulatory agency. As a result, there is a certain lack of transparency.
LO 2.i

Knowledge Check 2.6

1. A Zero coupon bonds are more volatile than bonds with coupon payments. The most volatile bonds are the bonds with the lowest yield or coupon rate and the longest time to maturity. Because the bonds have the same maturity, the zero coupon bond with 6% yield will be the most volatile.
LO 2.j

2. C Treasury securities are not rated because the backing of the U.S. Treasury implies no default risk. Even with AAA ratings, a lot can happen to a corporation or a municipality in 18 years, making the STRIP the best choice for safety.
LO 2.j

Knowledge Check 2.7

1. C The jumbo (negotiable) CDs traded in the money market are unsecured debt of the issuer.
LO 2.k
2. D Time deposits, either in the form of a savings account or a certificate of deposit, have no interest rate risk. Because these do not trade in “the market,” the value is not subject to changes in market interest rates.
LO 2.k

UNIT 3

Pooled Investments

LEARNING OBJECTIVES

When you have completed this unit, you will be able to accomplish the following.

- › LO 3.a **Identify** the legal requirements of investment companies.
- › LO 3.b **Compare** the method of capitalization and pricing of open-end investment companies and closed-end investment companies.
- › LO 3.c **Contrast** the mutual fund share classes and relate them to the different types of loads charged to fund investors.
- › LO 3.d **Identify** the characteristics of private funds and venture capital funds.
- › LO 3.e **Identify** the structure, compensation arrangements, and suitability requirements of a hedge fund.
- › LO 3.f **Recall** the special features of unit investment trusts.
- › LO 3.g **Identify** the distinguishing characteristics of exchange-traded funds (ETFs).
- › LO 3.h **Identify** the unique features of real estate investment trusts (REITs).
- › LO 3.i **Explain** the benefits and risks of pooled investments in client portfolios.

Your exam will include approximately six questions from the topics covered in Unit 3.

INTRODUCTION

In addition to equity and debt, other investments related to stocks and bonds are available to investors. Such investment products include packaged products such as mutual funds, exchange-traded funds (ETFs), variable contracts of insurance companies (variable annuities and variable life insurance), and real estate investment trusts (REITs). These packaged products are generally referred to as pooled investments because they represent a pool of funds contributed by a number of investors.

LESSON 3.1: INVESTMENT COMPANIES

LO 3.a Identify the legal requirements of investment companies.

The first of the pooled investment vehicles we'll cover are investment companies. An **investment company** is a corporation or a trust through which investors may acquire an interest in large, diversified portfolios of securities by pooling their funds with other investors' funds. People often invest in investment companies because they believe a professional money manager should be able to outperform the average investor in the market.

As with all investments, there are benefits and risks. This unit will close with a discussion of the benefits and risks for most of the pooled investments covered. Investment companies raise capital by selling shares to the public. Investment companies must abide by similar registration and prospectus requirements imposed by the Securities Act of 1933 on most other issuers.

Investment companies are also subject to regulations regarding how their shares are sold to the public. The Investment Company Act of 1940 provides for Securities and Exchange Commission (SEC) regulation of investment companies and their activities.

Types of Investment Companies

The Investment Company Act of 1940 classifies investment companies into three broad types: face-amount certificate companies (FACC), management investment companies, and unit investment trusts (UITs), which will be covered a bit later in LO 3.f.

Face-Amount Certificate Companies (FACC)

A **face-amount certificate (FAC)** is a contract between an investor and an issuer in which the issuer guarantees payment of a stated (or fixed) sum to the investor at some set date in the future. In return for this future payment, the investor agrees to pay the issuer a set amount of money either as a lump sum or in periodic installments.



TAKE NOTE

The only fact you need to know about this security is that it is one of the three types of investment companies listed in the Investment Company Act of 1940.

Management Investment Companies

The most familiar type of investment company is the **management investment company**, which actively manages a securities portfolio to achieve a stated investment objective. A management investment company is either closed-end or open end. Mutual funds are open-end investment companies. Initially, both closed-end and open-end companies sell shares to the public; the difference between them lies in the way they raise capital and how investors buy and sell their shares—in the primary or secondary market.



TAKE NOTE

Open-end and closed-end investment companies have far more similarities than differences. One of these is the term *net asset value* per share, generally shown as NAV. This value is the result of the fund valuing all of its assets (the largest of which is the portfolio), subtracting its liabilities and then dividing that by the number of shares outstanding. This NAV per share computation is critical to the purchase and sale of open-end companies, and, as we'll soon see, has little relationship to the buying and selling price of closed-end funds.



TEST TOPIC ALERT

It is important for you to know that the definition of *investment company* does not include holding companies.

Board of Directors

In general, management investment companies (open-end and closed-end) cannot have a board of directors that consists of more than 60% of persons who meet the definition of interested persons of the investment company.



TAKE NOTE

Another way of stating that no more than 60% of the directors may be interested persons is to say that at least 40% must be noninterested—that is, “outside” directors. These are individuals who have no connection to the fund other than a position on the board (and maybe owning some shares of the fund as would any other investor). Typically, outside directors are academics or prominent community members.

Prohibited Activities

Open-end investment companies are prohibited from engaging in several activities. Mutual funds may not:

- purchase any security on margin;
- participate on a joint basis in any trading account in securities (i.e., an investment company cannot have a joint account with someone else);
- sell any security short; or
- acquire more than 3% of the outstanding voting securities of another investment company.



PRACTICE QUESTION

The Investment Company Act of 1940 prohibits registered open-end investment companies from engaging in any of the following practices **except**

- A. issuing common stock.
- B. selling short or purchasing securities for the company's portfolio on margin.
- C. owning more than 3% of the outstanding voting securities of another investment company.
- D. opening a joint account with another investment company.

Answer: A. The one thing that all open-end investment companies must do is issue common stock. That is the form of ownership. All of the other activities are prohibited.



TAKE NOTE

Do not confuse the Investment Company Act prohibition against an investment company using margin for portfolio transactions with the Securities and Exchange Act of 1934 Section 11(d)(1). That section (number not tested) states that it is unlawful for a broker-dealer to effect any transaction in connection where, directly or indirectly, he extends or maintains or arranges for the extension or maintenance of credit to or for a customer on any security that was a part of a new issue in the distribution of which he participated. Because mutual funds are a continuous new issue, they cannot be purchased on margin. However, there is a special exemption for certain investment company securities held by broker-dealers as collateral in margin accounts. Any securities issued by a registered open-end investment company or unit investment trust shall be exempt from the provisions of Section 11(d)(1) when the broker-dealer extends credit on that security, provided the security has been owned by the person to whom credit would be provided for more than 30 days (more on this in Unit 23).

Changes in Investment Policy

In order for an investment company's board to make fundamental investment policy changes, a majority vote of the outstanding voting stock is required. Examples of fundamental changes would include:

- a change in subclassification, such as from an open-end to a closed-end company or from a diversified to a nondiversified company;
- deviation from any fundamental policy in its registration statement, including a change in investment objective; and
- changing the nature of its business so as to cease to be an investment company.

In other words, because the investment company is supposed to function for the benefit of the shareholders, any of these changes would require the vote of a majority of the shareholders.

Size of Investment Companies

No registered investment company is permitted to make a public offering of securities unless it has a net worth of at least \$100,000.

Investment Advisory and Underwriter Contracts

A majority vote of the shareholders is required to approve the contract between the investment company and its investment adviser and the contract with its principal underwriter. These contracts must be in writing and provide that the contract:

- precisely describes all compensation to be paid;
- will be approved at least annually by the board of directors or by majority vote of the shareholders if it is to be renewed after the first two years; and
- may be terminated at any time, without penalty, by the board of directors or by majority vote of the shareholders on not more than 60 days' written notice to the investment adviser.

In addition, it is unlawful for any registered investment company to enter into or renew any contract with an investment adviser or principal underwriter unless the terms have been approved by majority vote of directors who are not parties to such contract as affiliated persons (i.e., directors who are not affiliated with the adviser or the underwriter, and who in the aggregate must comprise at least 40% of the directors).



TAKE NOTE

The effect of this final paragraph is that no advisory contract, whether initial or renewal, may take effect without approval of the noninterested members of the board.

Transactions of Certain Affiliated Persons and Underwriters

Those individuals who are affiliated with the investment company or its underwriter have certain restrictions when it comes to dealing with the fund. These individuals cannot

- sell any personally owned security to the fund except redeeming personally owned shares of the fund (like any other investor);
- borrow money from the fund; or
- purchase from that investment company any security other than the fund's shares.



TEST TOPIC ALERT

An **affiliated person** is defined as any person directly or indirectly owning, controlling, or holding, with power to vote, **5%** or more of the outstanding shares of the investment company. An affiliated person also includes any person directly or indirectly controlling, controlled by, or under common control with the investment company or any officer, director, partner, or employee of the investment company. However, while technically considered an affiliated person, no person is deemed to be an "interested person" for purposes of the maximum percentage of interested persons on the board solely by reason of being a member of the fund's board of directors or an owner of its securities. A person is deemed to be a **control** person when owning or controlling **more** than **25%** of the outstanding shares.

Custodian

Every registered investment company is required to keep its assets with a custodian. In the majority of cases, that custodian is a bank; hence the common use of the term *custodian bank*. Although the act specifies certain financial requirements for that bank, it does not require that the bank have FDIC coverage. Alternatively, the investment company may use a broker-dealer that is a member firm of a national securities exchange.

Unit 3

Redemption of Shares of Mutual Funds

Upon request of the investor, the Investment Company Act of 1940 requires that the proceeds be sent in no more than seven days. The investor receives the next computed NAV per share using the forward pricing principle (described at LO 3.c).

Periodic and Other Reports

All investment companies must file **annual** financial reports with the SEC. These reports contain an audited balance sheet and income statement. In addition, shareholders must be sent financial information **semiannually**.

Knowing what is prohibited and what is required is often tested on the exam. Here is an example expressing ideas that are likely to be tested:

PRACTICE QUESTION

ABC is an FINRA member broker-dealer. Among other functions, it serves as the principal underwriter of the XYZ Mutual Fund. Which of the following transactions of ABC would be prohibited?

- A. ABC tenders, from its investment account, 500 shares of the XYZ Mutual Fund for redemption.
- B. ABC purchases, for its investment account, 500 shares of XYZ Mutual Fund.
- C. ABC purchases some securities directly from XYZ's portfolio.
- D. All of these.

Answer: C. It would be a violation of the Investment Company Act of 1940 for any affiliated person, such as the principal underwriter, to purchase any security from an investment company other than shares of the fund itself. Investing in the fund's shares would be permitted, not prohibited.

KNOWLEDGE CHECK 3.1

1. Which of the following statements correctly expresses requirements under the Investment Company Act of 1940?
 - I. A registered open-end investment company using a bank as custodian must choose one that has FDIC coverage.
 - II. If an affiliated person of a registered investment company wishes to borrow money from the fund, there must be at least 300% asset coverage.
 - III. No investment advisory contract may be entered into that does not provide for termination with no more than 60 days' notice in writing.
 - IV. No registered investment company may acquire more than 3% of the shares of another investment company.
 - A. I and II
 - B. I and IV
 - C. II and III
 - D. III and IV
2. As described in the Investment Company Act of 1940, the term *management investment company* would include
 - A. face-amount certificate companies, unit investment trusts, and open-end and closed-end investment companies.
 - B. unit investment trusts and open-end and closed-end investment companies.
 - C. open-end and closed-end investment companies.
 - D. growth funds and income funds.

LESSON 3.2: PRICING OF FUND SHARES

LO 3.b Compare the method of capitalization and pricing of open-end investment companies and closed-end investment companies.

Open-End Investment Companies—Initial Capitalization

An open-end investment company or **mutual fund** does not specify the exact number of shares it intends to issue. It registers an open offering with the SEC. The open-end investment company can raise an unlimited amount of investment capital by continuously issuing new shares. As a consequence, investors in mutual funds are always purchasing a new issue: a

primary offering with the money going to the issuer (the mutual fund). One other point is that open-end companies can only issue common stock. The money raised from the issuance of that common stock is then used by the portfolio manager(s) to invest in securities meeting that fund's objectives. For example, a mutual fund seeking income would likely invest a substantial portion of its capital into bonds and/or preferred stock. Don't confuse the limitation on only issuing common stock to raise capital with what it can invest with that capital—bond funds will use the proceeds from the sale of the common shares issued to buy bonds.

PRACTICE QUESTION



An investor is always purchasing newly issued shares of common stock when investing in

- A. a closed-end investment company.
- B. an open-end investment company (mutual fund).
- C. a unit investment trust (UIT).
- D. a holding company.

Answer: B. A unique characteristic of mutual funds is that they are capitalized by a continuous offering of new shares. Whenever an investor adds to her portfolio, she is buying new shares of common stock issued by that fund. In a UIT, the investor is purchasing units, not shares.



TEST TOPIC ALERT

Because mutual funds are a continuous new offering, the **prospectus** must be distributed to a prospective investor before or during any solicitation for sale.

Closed-End Investment Companies—Initial Capitalization

As we stated, the primary difference between the two categories of management companies (closed-end and open-end) is the way in which they raise capital and subsequently trade. To raise capital, a closed-end investment company conducts a common stock offering. For the initial offering, the company registers a fixed number of shares with the SEC and offers them to the public for a limited time through an underwriting group in a manner the same as any corporate stock offering. The fund's capitalization is fixed unless an additional public offering is made at a later time. Closed-end investment companies can also issue bonds and preferred stock. Therefore, the capital structure of a closed-end company can resemble that of any other corporation—common stock, preferred stock, and bonds.

Pricing of Closed-End Investment Company Shares

Closed-end investment companies are commonly known as **publicly traded funds**. After the stock is distributed, anyone can buy or sell shares in the secondary market, either on an exchange or over the counter (OTC). Supply and demand determine the bid price (price at which an investor can sell) and the ask price (price at which an investor can buy). Closed-end fund shares usually trade at a premium or discount to the shares' net asset value (NAV).



TEST TOPIC ALERT

Please remember the following points:

- Closed-end investment companies trade based upon supply and demand for their shares. As a result, their buying and selling price does *not* have a direct relationship to the NAV of the shares. Put another way, the market price of a closed-end fund is **independent** of the fund's NAV.
- Country funds are funds that concentrate their investments in the securities of companies domiciled in foreign countries. Well-known examples are the Korea Fund, the New Germany Fund, and the Mexico Fund. These country funds are generally organized as closed-end (rather than open-end) companies because it is often difficult to liquidate foreign securities to get their value into the United States.

Pricing of Open-End Investment Company Shares

When it comes to open-end investment companies (mutual funds), any person who wants to invest in the company buys shares directly from the company or its underwriters (or a broker-dealer with a selling agreement) at the **public offering price (POP)**. A mutual fund's **POP** is the net asset value per share (NAV) plus any applicable sales charges. A mutual fund's **net assets** are calculated daily by deducting the fund's liabilities from its total assets. **NAV** per share is calculated by dividing the fund's net assets by the number of shares outstanding.

An open-end investment company sells **redeemable securities**. When an investor sells shares, the company redeems them at their NAV. For each share an investor redeems, the company sends the investor money for the investor's proportionate share of the company's net assets. Therefore, a mutual fund's capital shrinks when investors redeem shares.

Each investor's share in the fund's performance is based on the number of shares owned. Mutual fund shares may be purchased in either full or fractional units, unlike stock, which may be purchased in full units only. Because mutual fund shares can be fractional, the investor can think in terms of dollars rather than number of shares owned. Because closed-end funds trade like any other corporate stock, fractional shares are not available.

	Open-End	Closed-End
Capitalization	Unlimited; continuous offering of shares	Fixed; single offering of shares
Issues	Common stock only; no debt securities	May issue common stock, preferred stock, debt securities
Shares	Full or fractional	Full only
Offering and trading	Sold and redeemed by fund only	Initial primary offering
	Continuous primary offering Must redeem shares	Secondary trading OTC or on an exchange Does not redeem shares
Pricing	NAV + sales charge	Current market value + commission
	Selling price determined by formula in the prospectus; the price can never be below the NAV	Price determined by supply and demand, so it can be above, below, or the same as the NAV

TEST TOPIC ALERT

We said earlier that closed-end funds also compute NAV; however, because their price is determined by supply and demand and, as a consequence, may be more than, the same as, or less than the NAV, the NAV does not have the relevance that it does with open-end funds. Therefore, instead of daily computation, it is generally only done once per week.

Forward Pricing

Open-end investment companies (mutual funds) must compute their net asset value (NAV) per share at least once per day (very few compute more than that) as of the close of the markets (generally 4:00 pm ET). Price determination for purchases and sales is based on the forward pricing principle. That is, whenever an order, whether to purchase or redeem shares, is received, the price is based on the next computed NAV per share. For example, any order received (and time stamped) prior to 4:00 pm ET will be executed at the price computed as of that day's market close. If the order is received at 4:00 pm (or later), it will be executed based on the NAV computed as of 4:00 pm the next business day.

**EXAMPLE**

If NavCo Mutual Fund shares are \$15 per share, a \$100 investment buys 6.667 shares ($\$100 \div \$15 = 6.667$).

An investment company's portfolio is elastic. Money is simultaneously invested into the fund and paid out when shares are redeemed. The mutual fund portfolio's value and holdings fluctuate as money is invested or shares are redeemed and as the value of the securities held by the portfolio rises and falls. The investor's account value fluctuates proportionately with the mutual fund portfolio's value.

**PRACTICE QUESTION**

Daniella has a number of investment company products within her retirement portfolio. One of these investments trades on an exchange and may trade at a premium or discount to its net asset value. These features are most likely found in what type of investment?

- A. Closed-end investment company
- B. Unit investment trust
- C. Open-end investment company
- D. Face-amount certificate company

Answer: A. A closed-end investment company (closed-end fund, or CEF) is a type of investment company whose shares trade in the secondary market. It is critical to remember for the exam that the price of the shares of a closed-end company is based on supply and demand and, therefore, can sell at, above, or below the fund's net asset value.

LO 3.c Contrast the mutual fund share classes and relate them to the different types of loads charged to fund investors.

Open-End Funds

FINRA prohibits its members who underwrite fund shares from assessing sales charges in excess of 8.5% of the POP on the purchase of open-end investment company shares. The actual schedule of sales charges is specified in the *prospectus*. Sales loads, management fees, and operating expenses reduce an investor's returns because they diminish the amount of money invested in a fund. Historically, mutual funds have charged front-end loads of up to 8.5% of the money invested (public offering price).

Alternatively, funds may charge a **back-end load** when funds are withdrawn. Some funds charge ongoing fees under Section 12b-1 of the Investment Company Act of 1940. These funds deduct annual fees to pay for marketing and distribution costs.

A fund's expense ratio expresses the management fees and operating expenses as a percentage of the fund's net assets. All mutual funds, load and no-load, have expense ratios. The expense ratio is calculated by dividing annual operating expenses by the average dollar value of the fund's assets under management. The sales charge is not considered an expense when calculating a fund's expense ratio.



EXAMPLE

An expense ratio of 1.72% means that the fund spends \$1.72 per year for every \$100 of invested assets.

Typically, more aggressive funds have higher expense ratios.



EXAMPLE

An aggressive growth fund's expense ratio is usually higher than that of a fund invested in AAA rated bonds because more trading occurs in the growth fund's portfolio.

All sales commissions are paid from the sales charges collected. Sales charges include commissions for the managing underwriter and broker-dealers and their agents who sell the fund, as well as all expenses incurred in communications with the public. The sales charge of a mutual fund is stated as a percentage of the public offering price (POP) per share.

Mutual fund distributors use three different methods to collect the fees for the sale of shares:

- **Front-end loads** (difference between POP and net NAV)
- **Back-end loads** (contingent deferred sales loads)
- **12b-1 fees** (asset-based fees—technically not a sales charge, but may be referred to as an asset-based sales charge on the exam)

Sales Loads

Front-End Loads. Front-end sales loads are reflected in a fund's public offering price. The charges are added to the NAV at the time an investor buys shares. They are frequently referred to as Class A shares and have lower operating expense ratios than other classes.

Back-End Loads. A back-end sales load, also called a *contingent deferred sales charge or load (CDSC)*, is charged at the time an investor redeems mutual fund shares. The sales load, a declining percentage charge that is reduced annually (for instance, 8% the first year, 7% the second, 6% the third, and so forth), is applied to the proceeds of any shares sold in that year. The back-end load is usually structured so that it drops to zero after six to eight years, at which time the shares are converted to Class A with their lower operating expense ratios. They are frequently referred to as Class B shares.

12b-1 Asset-Based Fees. Mutual funds cannot act as distributors for their own fund shares except under Section 12b-1 of the Investment Company Act of 1940. This provision permits a mutual fund to collect a fee for promotion or sales-related activities in connection with the distribution of its shares. The fee is determined as a percentage of the fund's average net assets during the year. The fee is disclosed in the fund's prospectus.

The percentage of net assets charged must be reasonable (typically 0.5% of net assets—this annual fee cannot exceed 0.75% of net assets), and the fee must reflect the anticipated level of distribution services. If the fee exceeds 0.25%, the fund cannot use the term *no-load* (no front-end or back-end load).

In order to charge a 12b-1 fee, there are several specific requirements in the law. There must be a written plan, and this written plan must meet the following requirements:

- The plan has been approved initially by a vote of at least a majority of the outstanding voting securities of the investment company.
- The plan, together with any related agreements, has been approved initially and reapproved at least annually by a vote of the board of directors of the company, and of the directors who are not *interested persons* of the company (the *outside* directors).
- The plan may be terminated at any time by a vote of the majority of the members of the board of directors of the company who are not *interested persons* of the company, or by a vote of the majority of the shareholders of the company.



TEST TOPIC ALERT

The 12b-1 fee is used for marketing and distribution purposes only. None of that money is used to pay the for the fund's portfolio management.



Classes of Fund Shares

Mutual funds may offer several classes of shares to allow investors to select how they pay the sales charges. The following is a typical method by which firms may classify fund shares by fee type: Class A, B, and C shares.

- Class A shares (front-end load): investors pay the charge at the time of purchase.
- Class B shares (back-end load): declines over time so investors pay the charge at redemption.
- Class C shares (level load): no sales charge to purchase; generally a 1% CDSC for one year, with a continuous 12b-1 charge.

The class of shares determines the type of sales charge as well as operating expenses, with Class A having lower costs (usually a low or no 12b-1 fee) than Class B and Class C shares. All other rights associated with mutual fund ownership remain the same across each class.



TAKE NOTE

The authors of test questions are generally slow to react to industry developments. For example, this is what FINRA says about Class C shares: "Class C shares typically impose higher asset-based sales charges than Class A shares, and because their shares generally do not convert into Class A shares, their asset-based sales charge will not be reduced over time." Those asset-based sales charges are the 12b-1 fees. In recent years, there has been a growing trend for mutual fund sponsors to provide for conversion of C shares to A shares in a manner similar to B shares. The difference is that the time for conversion is generally eight to ten years rather than the six to eight years for Class B conversion to Class A shares. Until this becomes the industry standard, for test purposes, Class C shares do not convert to Class A shares.



TAKE NOTE

In recent years, a number of other share classes have emerged, covering virtually the entire alphabet. As of the printing of this text, the only ones we are aware of possibly appearing on the exam are:

- Class I shares, which would be sold only to institutional investors (hence the letter I), and usually have lower fees and expenses.
- Class R shares, which would be sold only to participants in retirement plans, such as a 401(k), and have no front-end or back-end load, but may have a 12b-1 fee that is lower than Class B and Class C shares, but higher than Class A shares.

Reductions in Sales Charges

There are two ways that an investor can take advantage of reduced sales charges available on Class A shares for larger purchases.

- Breakpoints—a scale of declining sales charges based on the amount invested
- Rights of accumulation—permits an investor to aggregate shares owned in related accounts in some or all funds in the fund family to reach a breakpoint discount with no time limit.

Breakpoints

The schedule of discounts a mutual fund offers is called the fund's **breakpoints**. Breakpoints are available to any person. For a breakpoint qualification, the term *any person* includes married couples, parents and their *minor* children, and corporations. Investment clubs or associations formed for the purpose of investing do *not* qualify for breakpoints.

Sample Breakpoint Schedule

Purchase Amount	Sales Charge
\$0-\$24,999	6.5%
\$25,000-\$49,999	5.5%
\$50,000-\$99,999	5%
\$100,000-\$249,999	3%
\$250,000-\$499,999	2%
\$500,000-\$999,999	1%
\$1,000,000 +	0%

Breakpoint Sales

Both state and federal regulators prohibit registered personnel from making higher commissions by selling investment company shares in a dollar amount just below the point at which the sales charge is reduced. This is known as a *breakpoint sale*, and this practice is considered contrary to just and equitable principles of trade. For example, using the above chart, if an order for \$24,000 was taken without indicating to the investor that an additional \$1,000 would save \$250 in sales charges (1% reduction on \$25,000), it would likely be considered a violation.



TAKE NOTE

Although not specifically listed as a violation, regulators scrutinize large purchases of Class B shares. A purchase large enough to reach a significant Class A share breakpoint results in a low enough sales charge that, in just a few years, the lower operating expenses of the Class A shares will more than make up the difference in front-end cost. In practice, very few firms will accept an order for Class B shares in excess of \$100,000, particularly if the investor intends to maintain the position for a number of years.

Letter of Intent (LOI)

A person who plans to invest more money with the same mutual fund company may decrease overall sales charges by signing a **letter of intent (LOI)**. In the LOI, the investor informs the investment company that he intends to invest the additional funds necessary to reach the breakpoint within 13 months.

The LOI is a one-sided contract binding on the fund only. The customer must complete the intended investment to qualify for the reduced sales charge. The fund holds the extra shares purchased as a result of the reduced sales charge in escrow. If the customer deposits sufficient money to complete the LOI, he receives the escrowed shares. Appreciation and reinvested dividends do not count toward the LOI.



EXAMPLE

Using the sample breakpoint schedule displayed above, a customer investing \$20,000 is under the \$25,000 breakpoint. The customer might sign a letter of intent promising an amount that will qualify for the breakpoint within 13 months from the date of the letter. An additional \$5,000 invested in the fund within 13 months qualifies the customer for the reduced sales charge. Each deposit is charged the reduced sales charge at the time of purchase.

If the customer has not completed the investment within 13 months, he will be given the choice of sending a check for the difference in sales charges or cashing in escrowed shares to pay the difference.

A fund often permits a customer to sign an LOI as late as 90 days after an initial purchase. The LOI may be backdated by up to 90 days to include prior purchases but may not cover more than 13 months in total. This means that if the customer signs the LOI after 60 days, he has 11 months to complete the letter.

Rights of Accumulation

Rights of accumulation allow an investor to combine previous investments in the fund with today's investment to determine today's sales charge.

The primary ways in which rights of accumulation differ from a letter of intent are they:

- are available for subsequent investments (the reduced sales charges will not apply to initial transactions);
- do not require making a specific commitment for future investment;
- allow the investor to use prior share appreciation to qualify for breakpoints; and
- do not impose time limits.

The customer may qualify for reduced charges when the total value of shares previously purchased and shares currently being purchased exceed a specific breakpoint amount. For the purpose of qualifying customers for rights of accumulation, the mutual fund bases the quantity of securities owned on the higher of current NAV or the total of purchases made to date. Referring back to the sample breakpoint schedule, once an investor accumulates \$100,000 in the fund by the greater of dollar amount of purchases or current value at NAV, each additional investment, no matter how small and with no time limit, qualifies for the breakpoint sales charge—in this case, 3%.



EXAMPLE

When discussing investment companies, the term sales load most commonly refers to

- A. the fund's sales charge, expressed as a percentage of the NAV.
- B. the fund's sales charge, expressed as a percentage of the public offering price.
- C. the commission earned by the broker-dealer making the sale.
- D. the 12b-1 fee.

Answer: B. Class A shares of an open-end investment company (mutual fund) have a "front-end" sales charge, or sales load, which is computed as a percentage of the public offering price. That is, if the fund's POP is \$10 and the NAV is \$9.50, the 50-cent sales charge is 5% of the \$10 offering price. In general, the majority of the sales load is paid to the broker-dealer making the sale as compensation. The 12b-1 fee is never referred to as a sales load because it is not related to the sale of shares. However, you will see the phrase asset-based sales charge.



PRACTICE QUESTION

Barbara wishes to invest in the KAPCO Growth Fund, an open-end investment company. She expects to hold the shares for at least 10 years. If she purchases KAPCO's Class A shares, each of these would be a way for her to receive a reduction on the sales charge **except**

- A. a single investment that reaches a breakpoint.
- B. joining together with her sister to make a purchase at a breakpoint level.
- C. signing a letter of intent.
- D. benefiting from the right of accumulation.

Answer: B. Reaching a breakpoint is the way in which investors can receive a "break" on the sales load charged when purchasing Class A shares. Purchases may be combined with spouses and dependent children, but not other family members, such as siblings, making the exception here. The three ways to reach a breakpoint are:

- a lump-sum purchase;
- using a letter of intent granting 13 months to reach the breakpoint; or
- taking advantage of rights of accumulation (no time limit).



KNOWLEDGE CHECK 3.2

1. Which of the following types of investment company is permitted to capitalize with common stock and preferred stock?
 - A. A balance fund
 - B. A unit investment trust
 - C. An open-end investment company
 - D. A closed-end investment company
2. The GEMCO Growth Fund, an open-end investment company, calculates its net asset value per share to be \$9.15. Orders that were received prior to the cut-off time are executed at a public offering price of \$10 per share. From this information, you know that the sales charge is
 - A. 8.5%.
 - B. 9.3%.
 - C. in excess of the permitted maximum.
 - D. based on the net asset value per share.

LESSON 3.3: PRIVATE FUNDS

LO 3.d Identify the characteristics of private funds and venture capital funds.

Private funds, generally referred to as private equity funds, limit their ownership so as not to be considered investment companies. As long as there are no more than 100 investors, the law does not consider these investment companies requiring registration—that is the 3(c)(1) fund exemption. There is another exemption without a limit on the number of investors. However, for this exemption, the 3(c)(7) exemption, all investors must be **qualified purchasers**. Qualified purchasers are individuals with at least \$5 million in investments, or business entities with at least \$25 million in investments. Most private funds are organized as partnerships rather than corporations. One special kind of private fund is the hedge fund, which will be covered shortly. One difference between hedge funds and other private funds is the anticipated holding period of the investments. Hedge funds tend to take a more active trading role where their positions are traded actively over a short time period. Conversely, private funds generally hold their investments for the long run.

Private funds can be separated into two different categories: those that make **direct** investments and those that make **portfolio** investments. What is the difference? In the first case, the funds have a 10% or greater voting interest in an operating company (one that is actually in operation) with the goal of influencing management and operations. In the latter case, the fund does not acquire a control position and builds a portfolio that may be stocks, bonds, derivatives, or any combination of these.

One specific type of private fund that is becoming increasingly more popular is the private liquidity fund. Private liquidity funds are defined by the SEC as “any private fund that seeks to generate income by investing in a portfolio of short-term obligations in order to maintain a stable net asset value (NAV) per unit or minimize principal volatility for investors.” If that sounds like a money market mutual fund (MMF), it should. In 2014, a number of restrictions, such as requiring a floating NAV (probably not tested), were placed on certain money market funds. In order to avoid those, the industry developed these private funds, which, being exempt from SEC registration, are also exempt from those restrictions. Because

they are unregistered, less information is publicly available about these funds compared to a traditional MMF that reports its holdings on a monthly basis.

Venture capital (VC) funds are also generally organized as limited partnerships where the investment decisions are made by the general partner with the capital coming from the limited partners. Those LPs can be wealthy individuals, pension and endowment funds, and even hedge funds. VC funds look for young, up-and-coming companies with an expectation of high returns in exchange for the high risk. Unlike private equity funds, it is more typical that venture capital fund investments are made in businesses that are not yet fully operational. The funding (and sometimes management guidance) provided has the goal of developing an exit strategy in 10 years or less.

One common characteristic of private equity and venture capital funds is the compensation to the fund manager. Typically, the annual management fee is 2% of committed capital plus 20% of the profits when the business is sold. This is usually referred to as the *carried interest*.

PRACTICE QUESTION



One of your friends is an entrepreneur who is looking for a way to raise capital for her fledgling business. Because the enterprise has no operating history, it is most likely that her best bet would be to approach

- A. a hedge fund.
- B. a mutual fund.
- C. a private equity fund.
- D. a venture capital fund.

Answer: D. When a business is in the pre-operating stage, it is of most interest to venture capitalists. Private equity funds, including hedge funds, invariably invest in going concerns, and mutual funds are almost always limited to purchasing securities that are marketable.

LO 3.e Identify the structure, compensation arrangements, and suitability requirements of a hedge fund.

Hedge Funds

Hedge funds are a form of fund generally organized as a limited partnership with no more than 100 investors that does not have to register with the SEC, although the portfolio managers generally are required to register as investment advisers. Because there is no registration requirement, one of the differences between a mutual fund and a hedge fund is the hedge fund's lack of transparency; a mutual fund is offered via a prospectus filed with the SEC, while a hedge fund's prospectus is generally referred to as a private placement memorandum, containing significantly less information.

Hedge funds are free to adopt far riskier investment policies than those permitted to open-end and closed-end funds, such as arbitrage strategies and massive short positions during bearish markets. In addition, they may use leverage (borrowed money) and derivatives such as options and futures. Even though these risky techniques are employed, the primary aim of most hedge funds is to reduce volatility and risk while attempting to preserve capital and deliver positive returns under all market conditions.

Another important factor is that management fees tend to be much, much higher than with other investments. Almost all hedge funds charge performance-based fees. The typical fee structure is known by the vernacular “2 and 20”—most funds take a 2% management fee and 20% of any profits. Fund compensation agreements may also contain a **hurdle rate**, where the incentive fee will only be paid if the fund return exceeds a set threshold return (e.g., 4%).

Many hedge funds also require that investors maintain the investment for a minimum length of time (e.g., one year) and, to that extent, they can be considered illiquid. These requirements are known as *lock-up* provisions. This provision provides that, during a certain initial period, an investor may not make a withdrawal from the fund—the investor’s capital is *locked up*. Generally recognized as one way the manager of the hedge fund portfolio can have capital retained in the fund, it is also seen to be another factor adding to the unique risk of hedge funds—in this case, shares being illiquid for that specified length of time.

Therefore, because of the higher risk, investment in these vehicles is limited to institutional clients and wealthy individuals known as accredited investors (defined in Unit 8).



TEST TOPIC ALERT

Hedge funds have very high initial investment minimums. Although there are some that will accept as little as \$25,000 and more that will take \$100,000, the general minimum ranges from \$500,000 to \$1 million. We’ve seen some with a minimum of \$25 million. The exam will want you to know that the high minimum is a reason why these funds are suitable for only a small percentage of investors.



TEST TOPIC ALERT

Most hedge funds are organized as limited partnerships with the portfolio managers investing along with the investors. As they say in the industry, they have “skin in the game,” so they have a greater motivation to succeed. The partnership is the issuer of the ownership units.



PRACTICE QUESTION

- Which type of investment company is most often organized as a limited partnership?
- A. Face-amount certificate company
 - B. Exchange-traded fund
 - C. Hedge fund
 - D. Unit investment trust

Answer: C. For various legal reasons, mostly related to the need to avoid registration with the SEC, hedge funds are generally structured as limited partnership entities, with the organizers invariably sinking their own funds into a few units.

Fund of Hedge Funds

With minimum purchase requirements as low as \$2,500, hedge funds are indirectly available to ordinary investors through funds of hedge funds. This offers the investor diversification because the fund of funds (FOF) will contain several different hedge funds. Because hedge funds themselves have limited liquidity, purchasing a FOF does not add significant liquidity for the investor; the seven-day redemption requirement is waived for these funds. Furthermore, in addition to the fees charged by the hedge funds in the portfolio, the FOF has expenses as well.



PRACTICE QUESTION



You may be required to know what hedge funds and mutual funds have in common. Which of the following would you choose?

- A. A high degree of transparency
- B. Relatively low management costs
- C. A pooled investment with other investors
- D. High liquidity

Answer: C. From what we've covered, you should have seen that hedge funds do not offer the transparency of mutual funds. The key to getting that point is that they are not registered with the SEC, so the disclosures that must be made are limited. The management fees for hedge funds are much higher than mutual funds and, due to the lock-up period, their liquidity is questionable. However, the common characteristic is that they are pooled investments.

KNOWLEDGE CHECK 3.3



1. Which of the following would be most likely to invest in a company based on an idea rather than actual operating results?
 - A. An aggressive mutual fund
 - B. A hedge fund
 - C. A private equity fund
 - D. A venture capital fund
2. The most common structure of a hedge fund is
 - A. a closed-end investment management company.
 - B. a corporation.
 - C. an open-end investment management company.
 - D. a partnership.

LESSON 3.4: OTHER POOLED INVESTMENTS

LO 3.f Recall the special features of unit investment trusts.

Unit Investment Trusts (UITs)

The third of the entities meeting the definition of an investment company under the Investment Company Act is the unit investment trust. A **unit investment trust (UIT)** is an unmanaged investment company organized under a trust indenture. UITs:

- do not have boards of directors;
- do not employ an investment adviser; and
- do not actively manage their own portfolios (trade securities).

A unit investment trust issues only redeemable securities, known as **units or shares of beneficial interest**, each of which represents an undivided interest in a portfolio of specified securities. The trustees use the investor's money to purchase securities designed to meet the UIT's stated objective. Without an investment adviser (management), once compiled, the portfolio remains fixed. An example of a UIT is one solely invested in municipal bonds where the trust liquidates after the final bond in the portfolio matures. There are also equity trusts where, because stock doesn't mature, the portfolio is liquidated at a predetermined date and the proceeds distributed to unit holders or reinvested into a new trust at the investor's option.

Under the Investment Company Act of 1940, the trustees must maintain secondary markets in the units, thus allowing unit holders the ability to redeem their units at net asset value (NAV). Some exchange-traded funds (ETFs—covered later in this unit) are organized as UITs and trade, as the name implies, on exchanges or Nasdaq.



TAKE NOTE

Know the following features of UITs.

- UITs are not actively managed; there is no board of directors (BOD) or investment adviser.
- UIT shares (units) must be redeemed by the trust.
- UITs are investment companies as defined under the Investment Company Act of 1940.



PRACTICE QUESTION

Louis owns an investment that is an unmanaged portfolio in which the money manager initially selects the securities to be included in the portfolio, and then holds those securities until they mature or the investment portfolio terminates. This statement best describes which type of investment?

- A. Closed-end investment company
- B. Face-amount certificate company
- C. Open-end investment company
- D. Unit investment trust

Answer: D. A unit investment trust (UIT) is a type of investment company which is generally unmanaged as the money manager initially selects the securities to be included in the portfolio and then holds those securities until they mature or the UIT terminates.

LO 3.g Identify the distinguishing characteristics of exchange-traded funds (ETFs).

An **exchange-traded fund (ETF)** registers with the SEC under the Investment Company Act of 1940 either as a unit investment trust (a UIT ETF) or as an open-end management company (an open-end ETF).

This type of fund generally invests in a specific index, such as the S&P 500. Any class of assets that has a published index around it and is liquid can be made into an ETF so that there are ETFs for real estate and commodities as well as stocks and bonds. In this way, an ETF is similar to an index mutual fund. The difference is that the ETF trades like a stock on an exchange or Nasdaq and, in this way, is similar to a closed-end investment company. The investor can take advantage of price changes that are due to the market rather than just the underlying value of the stocks in the portfolio.

TAKE NOTE



Although, as stated, most ETFs are passive in that they are based on some index, in recent years, there has been a growth in actively managed ETFs where, instead of attempting to mirror an index, the managers select individual assets based on expected performance. This concept will make more sense after you read Unit 21, which explains passive and active portfolio management styles.

ETFs can be purchased on margin and sold short (covered in Unit 23) just like any other listed stock. This is another difference between ETFs and mutual funds. ETF expenses tend to be lower than those of mutual funds as well, because all the adviser has to do is match up to the specified index, so the fees are minimal. In addition, there can be tax advantages to owning ETFs.

However, because there are brokerage commissions on each trade (in and out), ETFs are generally not competitive with a no-load index fund for the small investor making regular periodic investments, such as in a dollar cost averaging plan (described in Unit 21).

TAKE NOTE



There are now some U.S.-listed ETFs available for commission-free trading on certain select platforms (these are typically proprietary funds). These products can be bought and sold without traditional brokerage commissions for investors with certain accounts and are subject to certain restrictions. Obviously, if there are no trading costs, the objection to using them in dollar cost averaging programs is eliminated. For exam purposes, these are the exceptions rather than the rule.

Most ETFs are legally classified as open-end companies (although those cannot be referred to as mutual funds because shares are not redeemable), with the rest as unit investment trusts.

Unlike the CEF (closed-end fund), where the market price will generally vary quite a bit from the NAV because those prices are determined by supply and demand, there are occasions where persistent small premiums and discounts arise in ETFs, but that is due to a structural inconsistency. Under normal circumstances, the premium and discount that arises between an ETF's NAV and its trading price at the end of the day is the result of late-in-the-day market activity and will narrow at the opening on the following trading day.

PRACTICE QUESTION



Which of the following is **not** touted as an advantage to purchasing ETFs instead of index mutual funds?

- A. Intra-day trading
- B. Typically lower expense ratios
- C. Better general performance than the underlying index
- D. Can be purchased on margin

Answer: C. One thing that neither of these products can claim is performance better than the underlying index. Think about it: the index has no management fees. Even though the management fees on index funds are very low and those on ETFs generally lower than that, there are still expenses making it unlikely that their performance can beat that of the index. The fact that an investor can trade the ETF during the day instead of accepting whatever the next computed price is can be a benefit for those who are trying to time the market. And for those who wish to add the leverage of margin trading (explained more fully in Unit 23), that can only be done with ETFs, not index mutual funds.

LO 3.h Identify the unique features of real estate investment trusts (REITs).

A **real estate investment trust (REIT)**, pronounced “reet”, is a company that manages a portfolio of real estate investments to earn profits and/or income for its shareholders. Like many other pooled investment vehicles, REITs offer professional management and diversification. REITs are normally publicly traded and serve as a source of long-term financing for real estate projects. A REIT pools capital in a manner similar to an investment company. Shareholders receive dividends from investment income or capital gains distributions. In most cases, those dividends are taxed at ordinary income rates rather than as qualified dividends. Capital gains distributions are generally taxed at the favorable long-term capital gains rate. Please note that with the advent of the TCJA of 2017 (the Tax Cuts and Jobs Act), there are some complex tax issues with REITs, and those are not likely to be tested. REITs normally:

- own commercial property (**equity REITs**);
- own mortgages on commercial property (**mortgage REITs**); or
- do both (**hybrid REITs**).

REITs are organized as trusts in which investors buy and sell shares either on stock exchanges or in the over-the-counter market; they are not redeemable as is the case with mutual funds or UITs.

REITs enjoy a unique hybrid status for federal income tax purposes. A REIT shareholder generally is taxed only on dividends paid by the REIT and on gains upon the disposition of REIT shares. A REIT is a corporation for U.S. tax purposes, but because it receives a dividends paid deduction, the REIT generally is not subject to corporate tax if it distributes to its shareholders substantially all of its taxable income for each year.

How much is “substantially all”? Under the guidelines of Subchapter M of the Internal Revenue Code, a REIT can avoid being taxed as a corporation by receiving 75% or more of its income from real estate and distributing 90% or more of its taxable income to its shareholders.



TAKE NOTE

There are three numbers relating to REITs that might be tested. The REIT must:

- Invest at least 75% of its total assets in real estate assets and cash;
- Derive at least 75% of its gross income from real estate related sources, including rents from real property and interest on mortgages financing real property; and
- Distribute at least 90% of its taxable income to shareholders annually in the form of dividends.



TEST TOPIC ALERT

Four important points to remember about REITs follow.

- An owner of REITs holds an undivided interest in a pool of real estate investments.
- REITs are liquid because they trade on exchanges and over the counter.



- REITs are not investment companies (mutual funds).
- REITs offer dividends and gains to investors but do not flow through losses like limited partnerships, and therefore are not considered direct participation programs (DPPs—Unit 5).



TAKE NOTE

In recent years, there has been substantial growth in the number of “nontraded” REITs (limited liquidity). However, for exam purposes, assume the REIT is publicly traded unless the question states otherwise. Obviously, the suitability conditions change when the REIT is non-traded.



KNOWLEDGE CHECK 3.4

1. Which of the following statements regarding a unit investment trust is **not** true?
 - A. Overall responsibility for the fund rests with the board of directors.
 - B. It invests according to stated objectives.
 - C. It charges no management fee.
 - D. It is considered an investment company.
2. An investor wants to invest \$200,000 in the banking industry sector. The investor would like to utilize leverage and do this purchase in a margin account. Additionally, she stresses wanting to avoid year-end tax statements showing capital gains liabilities. You would suggest which of the following as suitable given the investor's criteria?
 - A. A bank sector exchange-traded fund (ETF)
 - B. A money market fund holding short-term bank notes
 - C. Stocks in the three largest U.S. banks
 - D. A bank sector mutual fund
3. One of the characteristics of real estate investment trusts (REITs) is that they generally
 - A. have a high degree of marketability.
 - B. reinvest most of their income.
 - C. offer new shares continually to investors.
 - D. pay federal income tax on their earnings.

LESSON 3.5: BENEFITS AND RISKS OF POOLED INVESTMENTS

LO 3.i Explain the benefits and risks of pooled investments in client portfolios.

As you have seen, there are many different types of pooled investment vehicles. In general, they all share several important characteristics:

- **Diversification:** By pooling assets with many others, investors have the opportunity to own an interest in a far greater number and range of securities than available to almost any individual investor.
- **Professional management:** In almost all cases, someone with expertise (we hope) is “minding the store.” Even in the case of a UIT, where there is no ongoing management, the initial portfolio is constructed by experts.

The exam tends to focus on the most popular investments, such as mutual funds, so we will start with those.

Mutual Funds

What are the **benefits** of including mutual funds in a client's portfolio?

- **Diversification:** The old saying "don't put all of your eggs in one basket" certainly applies to the benefits of diversifying one's portfolio assets. Mutual funds are probably the easiest way to accomplish this. Although diversification may help to reduce risk, it will never completely eliminate it. It is possible to lose all or part of your investment.
- **Professional management:** Those individuals in charge of managing a mutual fund's portfolio must be registered as investment advisers with the SEC. The Investment Company Act of 1940 requires that they follow the stated objectives set forth in the prospectus. Taking into consideration prevailing market conditions and other factors, the mutual fund manager will decide when to buy or sell securities. Rare is the individual who has the time, knowledge, or resources to compete with these professionals.
- **Choice of objectives:** Whatever an investor's investment objectives are, there are mutual funds available to match. There are many shades of growth funds, from highly aggressive to very conservative, but all with the goal of growing the investment. The same is true with income funds where the goal is to generate current income with varying degrees of risk from government bonds to high-yield bonds. If the objective is capital preservation, money market funds fit the bill, and then there are funds that combine objectives, such as growth and income funds. There are even specialized funds (sector funds) that concentrate at least 25% of their portfolio into specific industries or geographic areas, such as a biotech fund or a Southeast Asia fund.
- **Convenience:** With most mutual funds, buying and liquidating shares, changing reinvestment options, and getting information can be accomplished conveniently by going online at the fund's website, by calling a toll-free phone number, or by mail.
 - Although a fund's shareholder is relieved of the day-to-day tasks involved in researching, buying, and selling securities, an investor will still need to evaluate a mutual fund on the basis of investment goals and risk tolerance before making a purchase decision. Investors should always read the prospectus carefully before investing in any mutual fund.
- **Liquidity:** The Investment Company Act of 1940 requires that an open-end investment company stand ready to redeem shares at the next computed NAV per share. Payment must be made within seven days of the redemption request.
- **Minimum initial investment:** As mentioned previously, it doesn't take a great deal of wealth to get started investing in funds and, generally, once you are a shareholder, most funds permit additional investments of \$100 or even less.
- **Convenient tax information:** Tax liabilities for an investor are simplified because each year the fund distributes a 1099 form explaining taxability of distributions.
- **Combination privilege:** A mutual fund company frequently offers more than one fund and refers to these multiple offerings as its family of funds. An investor seeking a reduced sales charge may be allowed to combine separate investments in two or more funds within the same family to reach a breakpoint.



EXAMPLE

Joe Smith has invested \$15,000 in the ACE Growth Fund for retirement and \$10,000 in the ACE Income Fund for his children's education. The sponsor may view the two separate expenditures as one investment totaling \$25,000 when calculating the sales charge. This combined dollar amount will generally reach a breakpoint.

- Exchanges within a family of funds: Many investment companies offer an **exchange or conversion privilege** within their families of funds. This feature allows an investor to convert an investment in one fund for an equal investment in another fund in the same family at net asset value without incurring an additional sales charge. For example, someone who started investing when in their 30s or 40s by placing their money into an aggressive growth fund might consider moving into something more conservative when they reached their 50s. Once they hit their 60s and 70s, they would want to have a greater percentage of their money in income funds. By staying in the same family of funds and using the exchange or conversion privilege, all of these changes could be made free of sales loads.



TEST TOPIC ALERT

Any exchange of funds is considered a sale for tax purposes. Any gains or losses are fully reportable at the time of the exchange.



TEST TOPIC ALERT

It is generally agreed that the number one advantage to investing in mutual funds is the *diversification* offered.

By including mutual funds in a client's portfolio, the client would be incurring the following risks:

- Even with the benefits offered by diversification and professional management, market prices do fluctuate. Equity funds have market risk, whereas bond funds may be subject to interest rate risk. Unlike an individual bond that ultimately repays principal at maturity, a bond fund doesn't have a maturity date. The only mutual fund that generally does not fluctuate in price is the money market fund, but there is a trade-off in lack of growth and low income. Not only that, but the income of a money market fund will vary, unlike that of a bank CD, which is fixed and insured by the FDIC.
- Fees and expenses: One must carefully analyze all of the costs involved. These include:
 - Sales charges, 12b-1 fees, and possible redemption fees.
 - Management fees (probably the largest expense on an ongoing basis).
 - The investor has no control over the manager's timing of purchases and sales, so tax efficiency could become an issue.

Prospectuses will not contain all the costs that affect the net return on the fund. This is why it is important to compare net returns after all expenses, including taxes to the investor.

- Other factors: When comparing funds with similar objectives, the investor should review information regarding funds'
 - services offered;
 - costs;
 - taxation;
 - tenure risk—a qualitative rather than quantitative measure (is the management team unproven or is there a long track record?); and
 - performance compared to an appropriate benchmark (see Unit 22).

- Net redemptions: It can sometimes happen, particularly during declining markets, that there is an excess of shareholder redemptions over new share purchases. This is known as net redemptions. When that occurs, the portfolio manager is put in the difficult position of having to decide which assets to liquidate when prices are falling. A fund suffering with net redemptions is probably not going to deliver your clients the performance they are seeking.

Private Funds

What are the **benefits** of including private funds in a client's portfolio?

- By investing before the company matures enough for a public offering, there is an opportunity for very large profits.
- Many private funds are structured so as to give the investors a say in the management and development of the company.
- Added diversification, because these usually have a low correlation to the overall market.

In doing so, the client would be incurring the following **risks**:

- Business risk—A high percentage of start-ups do not succeed, and the investors lose most or all of their investment
- Liquidity risk—There is rarely an opportunity to find a secondary market, and even when the company has a public offering, these investors' shares are likely to be restricted
- Lack of transparency—Being unregistered securities, no regulatory body has reviewed the offering documents

Hedge Funds

What are the **benefits** of including hedge funds in a client's portfolio?

- The designed strategy of many hedge funds is to generate positive returns in both rising and falling markets.
- With a large variety of available investment styles, investors have a plethora of choices to assist them in meeting their objectives.
- As part of an asset allocation class, hedge funds may reduce overall portfolio risk and volatility and increase returns.
- A proper selection of hedge funds can create uncorrelated returns, adding a level of diversification.

In doing so, the client would be incurring the following **risks**:

- Expenses can be quite high.
- The risky strategies could backfire, leading to significant loss of capital.
- Liquidity risk: during the lock-up period, the investor is locked in to the investment. Furthermore, even after that period, there is no active secondary market for these unregistered securities; they are not listed on any exchanges.
- Finally, as is generally the case with limited partnership investments, the sale of partnership interests may require approval of the general partner.



PRACTICE QUESTION

Julia, an analyst for a large investment advisory firm, is analyzing various policies utilized by hedge funds recommended by her firm. Julia has summarized the policies as follows:

Policy 1: During the fundraising period, each new investor must contribute a minimum of \$500,000 to the fund.

Policy 2: The hedge fund manager will return incentive fees to investors in the event that the minimum required return is not met.

Policy 3: Investors must provide redemption requests to the hedge fund manager at least 60 days before the funds are to be withdrawn.

Policy 4: New investors may not withdraw funds during the first 6 months that the funds are invested with the hedge fund manager.

Which of the policies identified by Julia specifies a lock-up period?

- A. Policy 1
- B. Policy 2
- C. Policy 3
- D. Policy 4

Answer: D. A lock-up period refers to a set period of time, such as 6 months, that an investor's funds must remain invested in the hedge fund. During that time period, withdrawal requests are not permitted.



PRACTICE QUESTION

One of your clients wishes to invest in a hedge fund. You should explain which of the following points?

- A. Shares of these funds are easy to redeem.
- B. The fund can be expected to generate a profit whether the markets trend up or trend down.
- C. These funds purchase a large amount of preferred stock.
- D. Expenses for these funds tend to be higher than those for traditional mutual funds.

Answer: D. Hedge funds typically use risky strategies to generate profit regardless of market direction, but there is no assurance that the objective will be realized. Redemption may be difficult with these funds, and higher management fees make for higher expenses than traditional mutual funds.

REITs

What are the **benefits** of including REITs in a client's portfolio?

- The opportunity to invest in real estate without the degree of liquidity risk found in direct ownership
- Properties selected by professionals with greater negotiating power than an individual
- A negative correlation to the general stock market because real estate prices and the stock market frequently move in opposite directions
- Reasonable income and/or potential capital appreciation

By placing REITs in a client's portfolio, the client would be incurring the following **risks**:

- Lower control, because much of the risk in investing in REITs lies with the quality of the management.

- ❑ REITs generally have greater price volatility than direct ownership of real estate because they are influenced by stock market conditions.
- ❑ Dividends are not considered qualified for purposes of the 15% maximum tax rate and are taxed at full ordinary income rates.
- ❑ If a REIT is not publicly traded, liquidity is very limited. While a portion of total shares outstanding may be redeemable each year, subject to limitations, redemption offers may be priced below the purchase price or current price. As a result, there is the need for more stringent suitability standards, and the regulators give greater scrutiny to trades in unlisted REITs.
- ❑ Failure to meet the distribution rules could cause a REIT to be taxed (review LO 3.h).
- ❑ Problem loans in the portfolio could cause income and/or capital to decrease.



PRACTICE QUESTION

In order for a REIT to avoid being taxed like a corporation, it must distribute at least

- A. 75% of its taxable income.
- B. 90% of its taxable income.
- C. 95% of its taxable income.
- D. 100% of its taxable income.

Answer: B. In order to qualify under IRS regulations, REITs must distribute at least 90% of their taxable income in the form of dividends to shareholders. At least 75% of a REIT's income must come from real estate investments.



KNOWLEDGE CHECK 3.5

1. When discussing the advantages of mutual funds, it is permissible to point out that they offer
 - A. better performance than investing in individual securities.
 - B. tax advantages not available to the individual investor.
 - C. diversification and professional management.
 - D. lower expenses than "do-it-yourself" investing.
2. A REIT can avoid being taxed as a corporation by
 - A. receiving 75% or more of its income from real estate and distributing 90% or more of its net investment income to its investors.
 - B. receiving 100% of its income from real estate and distributing 90% or more of its net investment income to its investors.
 - C. receiving less than 75% of its income from real estate and distributing 100% of its net investment income to its investors.
 - D. receiving less than 50% of its income from real estate and distributing 50% or more of its net investment income to its investors.
3. Identify two trading strategies that a hedge fund can employ in its portfolio but a mutual fund cannot.
 - I. Limiting investments to a narrow group of securities within one industry
 - II. Trading on margin to purchase portfolio securities
 - III. Purchasing speculative or low-rated securities
 - IV. Short selling of stock
 - A. I and III
 - B. I and IV
 - C. II and III
 - D. II and IV

KNOWLEDGE CHECK ANSWERS

Knowledge Check 3.1

1. D The Investment Company Act of 1940 requires that all advisory contracts contain a provision that the contract may be terminated upon no more than 60 days' notice in writing, choice III. The act prohibits any registered investment company from owning more than 3% of the shares of another investment company, choice IV, making choice D the correct answer. There are no circumstances under which an affiliated person can borrow from the fund, and it is not a requirement that the custodian bank have FDIC insurance.

LO 3.a

2. C The act describes three kinds of investment companies: FACCs, UITs, and management companies. Management companies are divided into two types: open end and closed end. The definition in the act does not list different objectives, such as growth and income.

LO 3.a

Knowledge Check 3.2

1. D One of the unique characteristics of closed-end companies (CEFs) is that they can issue common stock, preferred stock, and debt securities. Note that this question is not asking about the portfolio contents; it is asking about the kinds of securities the company can issue to raise capital.

LO 3.b

2. A The sales charge of a mutual fund is based on the public offering price (POP), not the NAV. In this case it is the \$0.85 difference between the POP and the NAV ($\$10 - \9.15) divided by the POP of \$10. That means the sales charge is 8.5%, the maximum allowable.

LO 3.c

Knowledge Check 3.3

1. D It is the venture capital fund that tends to invest in start-ups before operations have begun. That is what venture funding is all about. Private equity tends to come in a bit later, when it can offer additional funding and management expertise. With rare exceptions, mutual funds do not invest in companies that are not publicly traded. It is possible a hedge fund might take a chance on a company like this, but it would be out of the ordinary.

LO 3.d

2. D For a number of reasons, mostly legal, hedge funds are most commonly structured as partnerships.

LO 3.e

Knowledge Check 3.4

1. A A unit investment trust has no board of directors; rather, it has a board of trustees. A UIT must follow a stated investment objective (as must any investment company) and does not charge a management fee because it is not a managed portfolio.

LO 3.f

2. A The investor's criteria eliminate mutual funds as being suitable. Mutual funds typically make annual capital gains distributions, for which the owner incurs a tax liability, and mutual funds cannot be purchased on margin. Conversely, an ETF will rarely make a capital gains distribution, and because they trade like all exchange-traded products, they can be purchased on margin, making them more suitable for this investor. Buying only a few select bank stocks is not a good representation of the entire sector.

LO 3.g

3. A Most real estate investments are not readily marketable. Therefore, an investor in real estate can generally expect some difficulty in converting a property to cash if cash is needed quickly. However, a REIT securitizes real estate properties, thereby allowing REIT investors to easily sell REIT shares in the open market. For purposes of the exam, all REITs are publicly traded unless something in the question indicates otherwise. REITs must flow through at least 90% of their income to investors. Therefore, the investors and not the REITs pay tax on these distributions.

LO 3.h

2. A Under the guidelines set by the Internal Revenue Code, a REIT can avoid being taxed as a corporation by receiving 75% or more of its income from real estate and distributing 90% or more of its net investment income to its investors.
LO 3.i
3. D While there can be limited and rare exceptions, mutual funds are prohibited from purchasing securities on margin and selling securities short. Both strategies, however, are commonly employed by hedge funds.
LO 3.i

Knowledge Check 3.5

1. C The two primary advantages of mutual funds are diversification and professional management. If the investor in individual stocks happens to pick a few real winners, the performance will likely exceed that of a mutual fund. There is no general yes or no on that. Some would say that individual investments offer more tax advantages because the investor selects when and what to sell. Although the mutual fund will typically pay less in trading costs than an individual investor, the other expenses, especially the management fee, can make investing in mutual funds more expensive than selecting securities on your own.

LO 3.i